Appendix C:
Air Quality, Greenhouse Gas, and Energy Supporting Information

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C.1 - Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information Modeling Results

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Appendix C: Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information

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Toyota Walnut Creek CalEEMod Notes

Note 1

Land uses and sizes associated with development of the proposed project are drawn from Applicant provided information provided October 1, 2021, and updated information provided in October 2022. Land uses in the model represent the following:

Operational Model

Commercial > General Office Building > 13.515 x 1,000 sqft = Proposed Office Buildings. Lot acreage was assumed to constitute one-third of the gross building square footage since the office building(s) is assumed to be 3 stories at 35 feet tall.

Residential > Apartments Mid Rise > 132 x Dwelling Unit = Proposed residential apartments. Gross building square footage utilizes model defaults. Lot acreage was assumed to constitute one-third of the gross building square footage since the apartment building(s) is assumed to be 3 stories at 35 feet tall. Assuming an average of 2.18 persons per household in Contra Costa County (see Section 3.12, Population and Housing), Scenario 2 is anticipated to generate an estimated 288 new residents.

Recreational > Hotel > 723 x Room = Proposed Hotel. Gross building square footage utilizes model defaults. Lot acreage was assumed to constitute one-fifth of the gross building square footage since the hotel is assumed to be 5 stories at 50 feet tall.

Retail > Automobile Care Center > 142.094 x 1,000 sqft = Auto Sales Center.

Industrial > User Defined Industrial > 1 User defined metric = Placeholder land use to account for the Auto Dealership HHD Fleet mix and travel distance to the Port of Richmond.

Parking > Enclosed Parking with Elevator > 1,650 x Parking Stall = Proposed parking structures being considered as part of the proposed project. Gross building square footage utilizes model default values. Lot acreage is reduced to zero as the parking garages would be located beneath proposed building footprints already considered.

Construction Models

Construction models were separated into residential and nonresidential land uses for purposes of the construction HRA. All demolition and import/export material volumes for project construction are included in the nonresidential model.

Existing Land Uses Model

Retail > Automobile Care Center > 50.407 x 1,000 sqft = Existing auto sales center uses across all sites.

Parking > Parking Lot > 277.617 x 1,000 sqft = Existing parking areas across all sites.

Note 2

Utilizing the Existing ASCM Uses Within Sites A, B, C, D, and E plan set, dated July 21, 2021, which illustrates existing buildings on the project site, an estimated 90,465 square feet of building space and 277,617 square feet of pavement is anticipated to be demolished and removed from the site during

project construction. As such, a total of 14,595 tons of demolition debris is anticipated to be hauled off-site, as calculated in the Demolition Debris Calculations sheet contained in this Appendix.

According to the Kier+Wright TWC Earthwork Draft plan set for 2087-2200 North Broadway, dated October 2021, and an analysis by ENGEO Incorporated, dated August 31, 2022, approximately 255,773 cubic yards of soil would be exported during grading activities to make room for the parking garages being considered. Of that soil export amount, approximately 1,210 cubic yards of impacted, nonhazardous soil may be present at the site, which would be eligible for disposal at a Class II waste disposal facility. The project applicant indicated that all exported soil would be transported to the Keller Canyon Landfill at 901 Bailey Road in unincorporated Contra Costa County. As this landfill is located between 11 to 13.8 miles from the proposed project site, depending on the route taken, the default CalEEMod trip length for soil off-hauling during grading activities was adjusted to be 14 miles.

Note 3

The HHD vehicle class was removed from the Automobile Care Center land use fleet mix. In response to this adjustment, the remainder of the vehicle classes in the fleet mix were adjusted to reflect their proportional make-up without the HHD vehicle class. To account for all freight activities associated with vehicle deliveries to and from the project site, the fleet mix for the User Defined Industrial land use in the model was adjusted to be 100% HHD vehicle class with an average vehicle trip distance of approximately 25 miles, the travel distance between the project site and the Port of Richmond. The trip generation associated with each land use reflects the data presented in the Transportation Analysis prepared for the proposed project. Please refer to the Fleet Mix Adjustments.

Note 4

According to the BAAQMD's Regulation 6, Rule 3, new residential developments are prohibited from installing wood-burning stoves and fireplaces. As a result, the model was adjusted to remove the inclusion of wood-burning devices.

Note 5

BAAQMD *Basic Construction Mitigation Measures Recommended For All Proposed Projects* was applied to this project, which includes watering exposed areas at minimum twice per day and limiting construction vehicle speeds to 15 miles per hour on unpaved roads.

Note 6

As the project's residential land uses would be contained in buildings no greater than 35 feet tall, it is assumed that all residential buildings proposed as part of the project would be no greater than 3 stories tall. According to the California Code of Regulations, Title 24, Part 6, Subchapter 8 – Low-Rise Residential Building – Performance and Prescriptive Compliance Approaches, Section 150.1(c)14, "[a]ll low-rise residential buildings shall have a photovoltaic (PV) system meeting the minimum qualification requirements as specified in Joint Appendix JA11, with annual electrical output equal or greater than the dwelling's annual electrical usage as determined by Equation 150.1-C:"

Equation 150.1-C Annual Photovoltaic Electrical Output

kWPV = (CFA x A)/1,000 + (NDwell x B)

Where:

kWPV = kWdc size of the PV system

CFA = conditioned floor area

NDwell = number of dwelling units

A = Adjustment factor from Table 150.1-C

B = Dwelling adjustment factor from Table 150.1-C

As the project is located in climate zone 4, the A adjustment factor mentioned above is identified as 0.586 and the B adjustment factor mentioned above is identified as 1.21. The conditioned floor area is based on the building square footage.

Therefore:

kWPV = (132,000 x 0.586)/1,000 + (132 x 1.21) = 237.07 kWPV

While this accounts for the entire project's kW PV system, it does not provide the annual production rate that would be generated by this size of system. Therefore, the total kW PV system was reduced to a per-dwelling-unit kW PV system to determine the expected annual production rate. 237.07 kW PV divided by 132 dwelling units results in an average 1.8 kW PV system per dwelling unit.

According to TheEcoExperts.com,[1] a 2 kW PV system has an average annual production rate of 1,700 kWh/year. The below equation proportionally applies the same average annual production rate to the calculated 1.8 kW system per each dwelling unit.

Therefore:

(1.8/2) * 1,700 kWh/year = 1,530 kWh/year

Therefore, the proposed project is expected to result in an average on-site electricity generation rate of 1,530 kWh per dwelling unit per year. The following equation converts this to total annual on-site electricity generation. As such, after multiplying by 132 dwelling units, the proposed project would generate an estimated 201,960 kWh annually.

Note 7

For the 2030 operational models, PG&E's 2030 CO_2 intensity factor is based on the applicants commitment to use carbon-free electricity.. Any additional electricity demand beyond that satisfied by the on-site generation system would be supplied with 100 percent carbon -free electricity sources, such as from PG&E's 100 Percent Solar Choice electricity service option or MCE's Deep Green 100 percent renewable electricity service option.

Note 8

[1] Theecoexperts.com. 2016. Solar Panel Output. Website: http://www.theecoexperts.com/solar-panel-output/. Accessed January 31, 2022.

Applicant has committed to all electric building design for residential and commercial. There will be no natural gas usage in any of the buildings.

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Non Residential Construction

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	40.55	1000sqft	0.31	40,546.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	1,650.00	Space	0.00	660,000.00	0
Hotel	723.00	Room	4.82	1,049,796.00	0
Automobile Care Center	142.09	1000sqft	3.26	142,090.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Trips and VMT - Note 2

Demolition - Note 2

Grading - Note 2

Vehicle Trips - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.88	0.00
tblEnergyUse	LightingElect	2.35	0.00
tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	7.84	0.00
tblEnergyUse	NT24E	3.22	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24E	1.32	0.00
tblEnergyUse	T24E	3.50	0.00
tblEnergyUse	T24E	5.45	0.00
tblEnergyUse	T24E	1.83	0.00
tblEnergyUse	T24NG	19.51	0.00
tblEnergyUse	T24NG	16.14	0.00

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	T24NG	39.16	0.00
tblGrading	MaterialExported	0.00	255,773.00
tblLandUse	LandUseSquareFeet	40,550.00	40,546.00
tblLandUse	LotAcreage	0.93	0.31
tblLandUse	LotAcreage	14.85	0.00
tblLandUse	LotAcreage	24.10	4.82
tblSolidWaste	SolidWasteGenerationRate	542.78	0.00
tblSolidWaste	SolidWasteGenerationRate	37.71	0.00
tblSolidWaste	SolidWasteGenerationRate	395.84	0.00
tblTripsAndVMT	HaulingTripLength	20.00	14.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	13,367,984.56	0.00
tblWater	IndoorWaterUseRate	7,207,103.48	0.00
tblWater	IndoorWaterUseRate	18,340,174.71	0.00
tblWater	OutdoorWaterUseRate	8,193,280.86	0.00
tblWater	OutdoorWaterUseRate	4,417,256.97	0.00
tblWater	OutdoorWaterUseRate	2,037,797.19	0.00

2.0 Emissions Summary

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2024	0.4760	5.2286	4.7908	0.0230	1.4145	0.1131	1.5276	0.4033	0.1063	0.5096	0.0000	2,176.2742	2,176.2742	0.1316	0.2198	2,245.0590
2025	6.6101	0.3458	0.5174	1.6000e-003	0.0873	0.0105	0.0978	0.0236	9.8300e-003	0.0335	0.0000	147.8211	147.8211	0.0139	9.1300e-003	150.8893
Maximum	**6.6101**	**5.2286**	**4.7908**	**0.0230**	**1.4145**	**0.1131**	**1.5276**	**0.4033**	**0.1063**	**0.5096**	**0.0000**	**2,176.2742**	**2,176.2742**	**0.1316**	**0.2198**	**2,245.0590**

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					
2024	0.4760	5.2286	4.7908	0.0230	1.2276	0.1131	1.3407	0.3424	0.1063	0.4487	0.0000	2,176.2738	2,176.2738	0.1316	0.2198	2,245.0586
2025	6.6101	0.3458	0.5174	1.6000e-003	0.0873	0.0105	0.0978	0.0236	9.8300e-003	0.0335	0.0000	147.8210	147.8210	0.0139	9.1300e-003	150.8893
Maximum	**6.6101**	**5.2286**	**4.7908**	**0.0230**	**1.2276**	**0.1131**	**1.3407**	**0.3424**	**0.1063**	**0.4487**	**0.0000**	**2,176.2738**	**2,176.2738**	**0.1316**	**0.2198**	**2,245.0586**

	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

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**12.44**	**0.00**	**11.50**	**14.25**	**0.00**	**11.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	2.5669	2.5669
2	**4-1-2024**	**6-30-2024**	1.0336	1.0336
3	**7-1-2024**	**9-30-2024**	1.0450	1.0450
4	**10-1-2024**	**12-31-2024**	1.0769	1.0769
5	**1-1-2025**	**3-31-2025**	6.9478	6.9478
		Highest	6.9478	6.9478

2.2 Overall Operational

Unmitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	1/1/2024	1/26/2024	5	20	
2	Site Preparation	Site Preparation	1/27/2024	2/9/2024	5	10	
3	Grading	Grading	2/10/2024	3/8/2024	5	20	

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/9/2024	1/24/2025	5	230	
5	Paving	Paving	1/25/2025	2/21/2025	5	20	
6	Architectural Coating	Architectural Coating	2/22/2025	3/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,848,648; Non-Residential Outdoor: 616,216; Striped Parking Area: 39,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	1,443.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	31,972.00	10.80	7.30	14.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	777.00	310.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	155.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					0.1562	0.0000	0.1562	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.1562**	**9.6000e-003**	**0.1658**	**0.0236**	**8.9200e-003**	**0.0326**	**0.0000**	**33.9961**	**33.9961**	**9.5100e-003**	**0.0000**	**34.2338**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0703	0.0000	0.0703	0.0106	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.0703**	**9.6000e-003**	**0.0799**	**0.0106**	**8.9200e-003**	**0.0196**	**0.0000**	**33.9960**	**33.9960**	**9.5100e-003**	**0.0000**	**34.2338**

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2024

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6600e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6500e-003	5.6500e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0442**	**6.1500e-003**	**0.0504**	**0.0227**	**5.6500e-003**	**0.0284**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

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					0.0853	0.0000	0.0853	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1703	0.1476	3.0000e-004		7.2400e-003	7.2400e-003		6.6600e-003	6.6600e-003	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2747
Total	**0.0166**	**0.1703**	**0.1476**	**3.0000e-004**	**0.0853**	**7.2400e-003**	**0.0925**	**0.0364**	**6.6600e-003**	**0.0431**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2747**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0384	0.0000	0.0384	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1703	0.1476	3.0000e-004		7.2400e-003	7.2400e-003		6.6600e-003	6.6600e-003	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2746
Total	**0.0166**	**0.1703**	**0.1476**	**3.0000e-004**	**0.0384**	**7.2400e-003**	**0.0456**	**0.0164**	**6.6600e-003**	**0.0231**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2746**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.1560	1.4250	1.7137	2.8600e-003		0.0650	0.0650		0.0612	0.0612	0.0000	245.7601	245.7601	0.0581	0.0000	247.2129
Total	**0.1560**	**1.4250**	**1.7137**	**2.8600e-003**		**0.0650**	**0.0650**		**0.0612**	**0.0612**	**0.0000**	**245.7601**	**245.7601**	**0.0581**	**0.0000**	**247.2129**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1560	1.4250	1.7137	2.8600e-003		0.0650	0.0650		0.0612	0.0612	0.0000	245.7598	245.7598	0.0581	0.0000	247.2126
Total	**0.1560**	**1.4250**	**1.7137**	**2.8600e-003**		**0.0650**	**0.0650**		**0.0612**	**0.0612**	**0.0000**	**245.7598**	**245.7598**	**0.0581**	**0.0000**	**247.2126**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1122	0.1448	2.4000e-004		4.7500e-003	4.7500e-003		4.4700e-003	4.4700e-003	0.0000	20.8728	20.8728	4.9100e-003	0.0000	20.9954
Total	**0.0123**	**0.1122**	**0.1448**	**2.4000e-004**		**4.7500e-003**	**4.7500e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**20.8728**	**20.8728**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0123	0.1122	0.1448	2.4000e-004		4.7500e-003	4.7500e-003		4.4700e-003	4.4700e-003	0.0000	20.8727	20.8727	4.9100e-003	0.0000	20.9954
Total	**0.0123**	**0.1122**	**0.1448**	**2.4000e-004**		**4.7500e-003**	**4.7500e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**20.8727**	**20.8727**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
General Office Building	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Hotel	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
User Defined Industrial	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Appendix C																

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Unmitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Residential Construction

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	132.00	Dwelling Unit	1.01	132,000.00	378

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Construction activity start dates fixed to occur concurrently with nonresidential development.

Vehicle Trips - Construction Only

Fleet Mix -

Woodstoves - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	1/2/2024	1/30/2024
tblConstructionPhase	PhaseEndDate	1/8/2024	2/15/2024
tblConstructionPhase	PhaseEndDate	10/14/2024	12/13/2024
tblConstructionPhase	PhaseEndDate	10/28/2024	2/7/2025
tblConstructionPhase	PhaseEndDate	11/11/2024	3/7/2025
tblConstructionPhase	PhaseStartDate	1/1/2024	1/27/2024
tblConstructionPhase	PhaseStartDate	1/3/2024	2/10/2024
tblConstructionPhase	PhaseStartDate	1/9/2024	3/9/2024
tblConstructionPhase	PhaseStartDate	10/15/2024	1/25/2025
tblConstructionPhase	PhaseStartDate	10/29/2024	2/22/2025
tblConsumerProducts	ROG_EF	2.14E-05	1E-20
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	1E-20
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	1E-20
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	70.89	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	LotAcreage	3.47	1.01
tblSolidWaste	SolidWasteGenerationRate	60.72	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	8,600,331.38	0.00
tblWater	OutdoorWaterUseRate	5,421,948.05	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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					
2024	0.1705	1.2235	1.4947	3.1700e-003	0.1052	0.0474	0.1526	0.0326	0.0457	0.0783	0.0000	271.2692	271.2692	0.0341	5.5400e-003	273.7716
2025	0.9333	0.0326	0.0562	9.0000e-005	1.2700e-003	1.5000e-003	2.7600e-003	3.4000e-004	1.4000e-003	1.7400e-003	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1422
Maximum	**0.9333**	**1.2235**	**1.4947**	**3.1700e-003**	**0.1052**	**0.0474**	**0.1526**	**0.0326**	**0.0457**	**0.0783**	**0.0000**	**271.2692**	**271.2692**	**0.0341**	**5.5400e-003**	**273.7716**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2024	0.1705	1.2235	1.4947	3.1700e-003	0.0940	0.0474	0.1414	0.0272	0.0457	0.0729	0.0000	271.2690	271.2690	0.0341	5.5400e-003	273.7714
2025	0.9333	0.0326	0.0562	9.0000e-005	1.2700e-003	1.5000e-003	2.7600e-003	3.4000e-004	1.4000e-003	1.7400e-003	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1421
Maximum	**0.9333**	**1.2235**	**1.4947**	**3.1700e-003**	**0.0940**	**0.0474**	**0.1414**	**0.0272**	**0.0457**	**0.0729**	**0.0000**	**271.2690**	**271.2690**	**0.0341**	**5.5400e-003**	**273.7714**

	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**	**10.55**	**0.00**	**7.23**	**16.42**	**0.00**	**6.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	0.1624	0.1624
2	**4-1-2024**	**6-30-2024**	0.4385	0.4385
3	**7-1-2024**	**9-30-2024**	0.4433	0.4433
4	**10-1-2024**	**12-31-2024**	0.3582	0.3582
5	**1-1-2025**	**3-31-2025**	0.9659	0.9659
		Highest	0.9659	0.9659

2.2 Overall Operational

Unmitigated Operational

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	Site Preparation	Site Preparation	1/27/2024	1/30/2024	5	2	
2	Grading	Grading	2/10/2024	2/15/2024	5	4	
3	Building Construction	Building Construction	3/9/2024	12/13/2024	5	200	

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	1/25/2025	2/7/2025	5	10	
5	Architectural Coating	Architectural Coating	2/22/2025	3/7/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 267,300; Residential Outdoor: 89,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	95.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.1100e-003**	**0.0118**	**6.6300e-003**	**2.0000e-005**	**6.2700e-003**	**4.8000e-004**	**6.7500e-003**	**3.0000e-003**	**4.4000e-004**	**3.4400e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

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					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.1100e-003**	**0.0118**	**6.6300e-003**	**2.0000e-005**	**2.8200e-003**	**4.8000e-004**	**3.3000e-003**	**1.3500e-003**	**4.4000e-004**	**1.7900e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

3.3 Grading - 2024

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**2.6000e-003**	**0.0276**	**0.0174**	**4.0000e-005**	**0.0142**	**1.1400e-003**	**0.0153**	**6.8500e-003**	**1.0500e-003**	**7.9000e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**2.6000e-003**	**0.0276**	**0.0174**	**4.0000e-005**	**6.3700e-003**	**1.1400e-003**	**7.5100e-003**	**3.0800e-003**	**1.0500e-003**	**4.1300e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

3.4 Building Construction - 2024

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	0.1420	1.1064	1.2517	2.2100e-003		0.0451	0.0451		0.0435	0.0435	0.0000	181.6113	181.6113	0.0302	0.0000	182.3674
Total	**0.1420**	**1.1064**	**1.2517**	**2.2100e-003**		**0.0451**	**0.0451**		**0.0435**	**0.0435**	**0.0000**	**181.6113**	**181.6113**	**0.0302**	**0.0000**	**182.3674**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

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	0.1420	1.1064	1.2517	2.2100e-003		0.0451	0.0451		0.0435	0.0435	0.0000	181.6110	181.6110	0.0302	0.0000	182.3672
Total	**0.1420**	**1.1064**	**1.2517**	**2.2100e-003**		**0.0451**	**0.0451**		**0.0435**	**0.0435**	**0.0000**	**181.6110**	**181.6110**	**0.0302**	**0.0000**	**182.3672**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

3.5 Paving - 2025

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

3.6 Architectural Coating - 2025

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9301**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9301**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Unmitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Non Residential Construction

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	40.55	1000sqft	0.31	40,546.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	1,650.00	Space	0.00	660,000.00	0
Hotel	723.00	Room	4.82	1,049,796.00	0
Automobile Care Center	142.09	1000sqft	3.26	142,090.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Trips and VMT - Note 2

Demolition - Note 2

Grading - Note 2

Vehicle Trips - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5; Tier 4 Final Engines for Off-road Equip > 50 bhp

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.88	0.00
tblEnergyUse	LightingElect	2.35	0.00
tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	7.84	0.00
tblEnergyUse	NT24E	3.22	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24E	1.32	0.00
tblEnergyUse	T24E	3.50	0.00
tblEnergyUse	T24E	5.45	0.00
tblEnergyUse	T24E	1.83	0.00
tblEnergyUse	T24NG	19.51	0.00
tblEnergyUse	T24NG	16.14	0.00
tblEnergyUse	T24NG	39.16	0.00
tblGrading	MaterialExported	0.00	255,773.00
tblLandUse	LandUseSquareFeet	40,550.00	40,546.00
tblLandUse	LotAcreage	0.93	0.31
tblLandUse	LotAcreage	14.85	0.00
tblLandUse	LotAcreage	24.10	4.82
tblSolidWaste	SolidWasteGenerationRate	542.78	0.00
tblSolidWaste	SolidWasteGenerationRate	37.71	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblSolidWaste	SolidWasteGenerationRate	395.84	0.00
tblTripsAndVMT	HaulingTripLength	20.00	14.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	13,367,984.56	0.00
tblWater	IndoorWaterUseRate	7,207,103.48	0.00
tblWater	IndoorWaterUseRate	18,340,174.71	0.00
tblWater	OutdoorWaterUseRate	8,193,280.86	0.00
tblWater	OutdoorWaterUseRate	4,417,256.97	0.00
tblWater	OutdoorWaterUseRate	2,037,797.19	0.00

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					
2024	0.4760	5.2286	4.7908	0.0230	1.4145	0.1131	1.5276	0.4033	0.1063	0.5096	0.0000	2,176.2742	2,176.2742	0.1316	0.2198	2,245.0590

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2025	6.6101	0.3458	0.5174	1.6000e-003	0.0873	0.0105	0.0978	0.0236	9.8300e-003	0.0335	0.0000	147.8211	147.8211	0.0139	9.1300e-003	150.8893
Maximum	**6.6101**	**5.2286**	**4.7908**	**0.0230**	**1.4145**	**0.1131**	**1.5276**	**0.4033**	**0.1063**	**0.5096**	**0.0000**	**2,176.2742**	**2,176.2742**	**0.1316**	**0.2198**	**2,245.0590**

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					
2024	0.3359	3.6327	5.0219	0.0230	1.2276	0.0366	1.2642	0.3424	0.0354	0.3778	0.0000	2,176.2738	2,176.2738	0.1316	0.2198	2,245.0586
2025	6.5960	0.1831	0.5584	1.6000e-003	0.0873	2.6500e-003	0.0900	0.0236	2.5900e-003	0.0262	0.0000	147.8210	147.8210	0.0139	9.1300e-003	150.8893
Maximum	**6.5960**	**3.6327**	**5.0219**	**0.0230**	**1.2276**	**0.0366**	**1.2642**	**0.3424**	**0.0354**	**0.3778**	**0.0000**	**2,176.2738**	**2,176.2738**	**0.1316**	**0.2198**	**2,245.0586**

	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

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**2.18**	**31.55**	**-5.12**	**0.00**	**12.44**	**68.27**	**16.69**	**14.25**	**67.31**	**25.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	2.5669	1.9962
2	**4-1-2024**	**6-30-2024**	1.0336	0.6506
3	**7-1-2024**	**9-30-2024**	1.0450	0.6578
4	**10-1-2024**	**12-31-2024**	1.0769	0.6897
5	**1-1-2025**	**3-31-2025**	6.9478	6.7756
		Highest	6.9478	6.7756

2.2 Overall Operational

Unmitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	1/1/2024	1/26/2024	5	20	
2	Site Preparation	Site Preparation	1/27/2024	2/9/2024	5	10	
3	Grading	Grading	2/10/2024	3/8/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/9/2024	1/24/2025	5	230	
5	Paving	Paving	1/25/2025	2/21/2025	5	20	
6	Architectural Coating	Architectural Coating	2/22/2025	3/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,848,648; Non-Residential Outdoor: 616,216; Striped Parking Area: 39,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	1,443.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	31,972.00	10.80	7.30	14.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	777.00	310.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	155.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					0.1562	0.0000	0.1562	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.1562**	**9.6000e-003**	**0.1658**	**0.0236**	**8.9200e-003**	**0.0326**	**0.0000**	**33.9961**	**33.9961**	**9.5100e-003**	**0.0000**	**34.2338**

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0703	0.0000	0.0703	0.0106	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1300e-003	0.0415	0.2307	3.9000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	**7.1300e-003**	**0.0415**	**0.2307**	**3.9000e-004**	**0.0703**	**1.6400e-003**	**0.0719**	**0.0106**	**1.6400e-003**	**0.0123**	**0.0000**	**33.9960**	**33.9960**	**9.5100e-003**	**0.0000**	**34.2338**

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2024

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6600e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**2.3300e-003**	**0.0101**	**0.1043**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

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					0.0853	0.0000	0.0853	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1703	0.1476	3.0000e-004		7.2400e-003	7.2400e-003		6.6600e-003	6.6600e-003	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2747
Total	**0.0166**	**0.1703**	**0.1476**	**3.0000e-004**	**0.0853**	**7.2400e-003**	**0.0925**	**0.0364**	**6.6600e-003**	**0.0431**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2747**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0384	0.0000	0.0384	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0157	0.1775	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2746
Total	**3.6300e-003**	**0.0157**	**0.1775**	**3.0000e-004**	**0.0384**	**4.8000e-004**	**0.0389**	**0.0164**	**4.8000e-004**	**0.0169**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2746**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.1560	1.4250	1.7137	2.8600e-003		0.0650	0.0650		0.0612	0.0612	0.0000	245.7601	245.7601	0.0581	0.0000	247.2129
Total	**0.1560**	**1.4250**	**1.7137**	**2.8600e-003**		**0.0650**	**0.0650**		**0.0612**	**0.0612**	**0.0000**	**245.7601**	**245.7601**	**0.0581**	**0.0000**	**247.2129**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0551	0.2768	1.8685	2.8600e-003		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	245.7598	245.7598	0.0581	0.0000	247.2126
Total	**0.0551**	**0.2768**	**1.8685**	**2.8600e-003**		**9.0400e-003**	**9.0400e-003**		**9.0400e-003**	**9.0400e-003**	**0.0000**	**245.7598**	**245.7598**	**0.0581**	**0.0000**	**247.2126**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1122	0.1448	2.4000e-004		4.7500e-003	4.7500e-003		4.4700e-003	4.4700e-003	0.0000	20.8728	20.8728	4.9100e-003	0.0000	20.9954
Total	**0.0123**	**0.1122**	**0.1448**	**2.4000e-004**		**4.7500e-003**	**4.7500e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**20.8728**	**20.8728**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.5300e-003	0.0232	0.1585	2.4000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	20.8727	20.8727	4.9100e-003	0.0000	20.9954
Total	**4.5300e-003**	**0.0232**	**0.1585**	**2.4000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**20.8727**	**20.8727**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
General Office Building	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Hotel	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
User Defined Industrial	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

NaturalGas Mitigated	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
NaturalGas Unmitigated	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
	Appendix C															

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Unmitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Residential Construction - Mitigated

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	132.00	Dwelling Unit	1.01	132,000.00	378

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Construction activity start dates fixed to occur concurrently with nonresidential development.

Vehicle Trips - Construction Only

Woodstoves - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5; Tier 4 Final Engines for Off-road Equip > 50 bhp

Fleet Mix -

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	70.89	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	LotAcreage	3.47	1.01
tblSolidWaste	SolidWasteGenerationRate	60.72	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	8,600,331.38	0.00
tblWater	OutdoorWaterUseRate	5,421,948.05	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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					
2024	0.1705	1.2235	1.4947	3.1700e-003	0.1052	0.0474	0.1526	0.0326	0.0457	0.0783	0.0000	271.2692	271.2692	0.0341	5.5400e-003	273.7716
2025	0.9333	0.0326	0.0562	9.0000e-005	1.2700e-003	1.5000e-003	2.7600e-003	3.4000e-004	1.4000e-003	1.7400e-003	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1422

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Maximum	**0.9333**	**1.2235**	**1.4947**	**3.1700e-003**	**0.1052**	**0.0474**	**0.1526**	**0.0326**	**0.0457**	**0.0783**	**0.0000**	**271.2692**	**271.2692**	**0.0341**	**5.5400e-003**	**273.7716**

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					
2024	0.1125	0.5650	1.6119	3.1700e-003	0.0940	0.0172	0.1112	0.0272	0.0172	0.0444	0.0000	271.2690	271.2690	0.0341	5.5400e-003	273.7714
2025	0.9307	5.7200e-003	0.0627	9.0000e-005	1.2700e-003	1.9000e-004	1.4500e-003	3.4000e-004	1.9000e-004	5.2000e-004	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1421
Maximum	**0.9307**	**0.5650**	**1.6119**	**3.1700e-003**	**0.0940**	**0.0172**	**0.1112**	**0.0272**	**0.0172**	**0.0444**	**0.0000**	**271.2690**	**271.2690**	**0.0341**	**5.5400e-003**	**273.7714**

	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

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**5.49**	**54.56**	**-7.98**	**0.00**	**10.55**	**64.41**	**27.50**	**16.42**	**63.09**	**43.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	0.1624	0.0603
2	**4-1-2024**	**6-30-2024**	0.4385	0.2184
3	**7-1-2024**	**9-30-2024**	0.4433	0.2208
4	**10-1-2024**	**12-31-2024**	0.3582	0.1792
5	**1-1-2025**	**3-31-2025**	0.9659	0.9365
		Highest	0.9659	0.9365

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	Site Preparation	Site Preparation	1/27/2024	1/30/2024	5	2	
2	Grading	Grading	2/10/2024	2/15/2024	5	4	
3	Building Construction	Building Construction	3/9/2024	12/13/2024	5	200	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	1/25/2025	2/7/2025	5	10	
5	Architectural Coating	Architectural Coating	2/22/2025	3/7/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 267,300; Residential Outdoor: 89,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	95.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.1100e-003**	**0.0118**	**6.6300e-003**	**2.0000e-005**	**6.2700e-003**	**4.8000e-004**	**6.7500e-003**	**3.0000e-003**	**4.4000e-004**	**3.4400e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

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					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	9.1000e-004	8.6700e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**2.1000e-004**	**9.1000e-004**	**8.6700e-003**	**2.0000e-005**	**2.8200e-003**	**3.0000e-005**	**2.8500e-003**	**1.3500e-003**	**3.0000e-005**	**1.3800e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

3.3 Grading - 2024

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**2.6000e-003**	**0.0276**	**0.0174**	**4.0000e-005**	**0.0142**	**1.1400e-003**	**0.0153**	**6.8500e-003**	**1.0500e-003**	**7.9000e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

3.4 Building Construction - 2024

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	0.1420	1.1064	1.2517	2.2100e-003		0.0451	0.0451		0.0435	0.0435	0.0000	181.6113	181.6113	0.0302	0.0000	182.3674
Total	**0.1420**	**1.1064**	**1.2517**	**2.2100e-003**		**0.0451**	**0.0451**		**0.0435**	**0.0435**	**0.0000**	**181.6113**	**181.6113**	**0.0302**	**0.0000**	**182.3674**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

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	0.0869	0.4842	1.3625	2.2100e-003		0.0164	0.0164		0.0164	0.0164	0.0000	181.6110	181.6110	0.0302	0.0000	182.3672
Total	**0.0869**	**0.4842**	**1.3625**	**2.2100e-003**		**0.0164**	**0.0164**		**0.0164**	**0.0164**	**0.0000**	**181.6110**	**181.6110**	**0.0302**	**0.0000**	**182.3672**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

3.5 Paving - 2025

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

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	1.0200e-003	4.8400e-003	0.0504	7.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0200e-003**	**4.8400e-003**	**0.0504**	**7.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

3.6 Architectural Coating - 2025

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9301**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9294**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Unmitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Toyota Walnut Creek Operation (Year 2025)

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	40.55	1000sqft	0.31	40,546.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	1,650.00	Space	0.00	660,000.00	0
Hotel	723.00	Room	4.82	1,049,796.00	0
Apartments Mid Rise	132.00	Dwelling Unit	1.01	132,000.00	288
Automobile Care Center	142.09	1000sqft	3.26	142,094.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note 7

Land Use - Note 1

Construction Phase - Operation Only

Off-road Equipment - Operation Only

Vehicle Trips - Note 3

Woodstoves - Note 4

Energy Use - Note 8

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Mitigation - Note 6

Fleet Mix - Note 3

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	19.51	0.00
tblEnergyUse	T24NG	16.14	0.00
tblEnergyUse	T24NG	39.16	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberWood	22.44	0.00
tblFleetMix	HHD	7.1590e-003	0.00
tblFleetMix	HHD	7.1590e-003	1.00
tblFleetMix	LDA	0.57	0.57
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5170e-003	5.5570e-003
tblFleetMix	LHD2	5.5170e-003	0.00
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MCY	0.03	0.00

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.2710e-003	3.2950e-003
tblFleetMix	MH	3.2710e-003	0.00
tblFleetMix	MHD	7.2310e-003	7.2830e-003
tblFleetMix	MHD	7.2310e-003	0.00
tblFleetMix	OBUS	5.4500e-004	5.4900e-004
tblFleetMix	OBUS	5.4500e-004	0.00
tblFleetMix	SBUS	1.3900e-003	1.4000e-003
tblFleetMix	SBUS	1.3900e-003	0.00
tblFleetMix	UBUS	3.3100e-004	3.3300e-004
tblFleetMix	UBUS	3.3100e-004	0.00
tblLandUse	LandUseSquareFeet	40,550.00	40,546.00
tblLandUse	LandUseSquareFeet	142,090.00	142,094.00
tblLandUse	LotAcreage	0.93	0.31
tblLandUse	LotAcreage	14.85	0.00
tblLandUse	LotAcreage	24.10	4.82
tblLandUse	LotAcreage	3.47	1.01
tblLandUse	Population	378.00	288.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	0
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblVehicleTrips	CNW_TL	7.30	25.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	51.00	0.00

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	21.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	23.72	51.87
tblVehicleTrips	ST_TR	8.19	5.79
tblVehicleTrips	ST_TR	0.00	53.14
tblVehicleTrips	SU_TR	11.88	21.57
tblVehicleTrips	SU_TR	5.95	4.43
tblVehicleTrips	SU_TR	0.00	22.10
tblVehicleTrips	WD_TR	23.72	27.64
tblVehicleTrips	WD_TR	8.36	4.02
tblVehicleTrips	WD_TR	0.00	28.32
tblWoodstoves	NumberCatalytic	2.64	0.00
tblWoodstoves	NumberNoncatalytic	2.64	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2021	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
Maximum	**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**

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					
2021	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
Maximum	**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**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	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					
Area	6.1526	0.0136	1.0035	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.7000e-003	5.0000e-005	4.1745
Energy	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
Mobile	3.7863	4.9512	36.8520	0.0826	8.9980	0.0639	9.0619	2.4043	0.0597	2.4640	0.0000	7,631.1555	7,631.1555	0.4543	0.3788	7,755.3975
Waste						0.0000	0.0000		0.0000	0.0000	210.5118	0.0000	210.5118	12.4409	0.0000	521.5340
Water						0.0000	0.0000		0.0000	0.0000	15.0745	0.0000	15.0745	1.5483	0.0366	64.6764
Total	**9.9389**	**4.9649**	**37.8555**	**0.0826**	**8.9980**	**0.0696**	**9.0676**	**2.4043**	**0.0654**	**2.4697**	**225.5863**	**7,635.2740**	**7,860.8602**	**14.4452**	**0.4154**	**8,345.7824**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	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					
Area	6.1526	0.0136	1.0035	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.7000e-003	5.0000e-005	4.1745
Energy	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
Mobile	3.7863	4.9512	36.8520	0.0826	8.9980	0.0639	9.0619	2.4043	0.0597	2.4640	0.0000	7,631.1555	7,631.1555	0.4543	0.3788	7,755.3975
Waste						0.0000	0.0000		0.0000	0.0000	210.5118	0.0000	210.5118	12.4409	0.0000	521.5340
Water						0.0000	0.0000		0.0000	0.0000	15.0745	0.0000	15.0745	1.5483	0.0366	64.6764
Total	**9.9389**	**4.9649**	**37.8555**	**0.0826**	**8.9980**	**0.0696**	**9.0676**	**2.4043**	**0.0654**	**2.4697**	**225.5863**	**7,635.2740**	**7,860.8602**	**14.4452**	**0.4154**	**8,345.7824**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	11/30/2021	11/29/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2021

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	0.0000	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
Total	**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**

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	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
Total	**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2021

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	0.0000	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
Total	**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**

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	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
Total	**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**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.1 Mitigation Measures Mobile

	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					
Mitigated	3.7863	4.9512	36.8520	0.0826	8.9980	0.0639	9.0619	2.4043	0.0597	2.4640	0.0000	7,631.1555	7,631.1555	0.4543	0.3788	7,755.3975
Unmitigated	3.7863	4.9512	36.8520	0.0826	8.9980	0.0639	9.0619	2.4043	0.0597	2.4640	0.0000	7,631.1555	7,631.1555	0.4543	0.3788	7,755.3975

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	718.08	648.12	539.88	1,775,615	1,775,615
Automobile Care Center	3,927.37	7,370.21	3064.88	12,550,579	12,550,579
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	394.96	89.62	28.39	873,428	873,428
Hotel	2,906.46	4,186.17	3202.89	8,807,862	8,807,862
User Defined Industrial	28.32	53.14	22.10	281,892	281,892
Total	7,975.18	12,347.25	6,858.14	24,289,377	24,289,377

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0
User Defined Industrial	9.50	7.30	25.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Automobile Care Center	0.569170	0.056356	0.180001	0.126579	0.023600	0.005557	0.007283	0.000000	0.000549	0.000333	0.025877	0.001400	0.003295
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
General Office Building	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Hotel	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	510369	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	1.15096e +006	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.5904e +006	0.0000	0.0000	0.0000	0.0000
General Office Building	696175	0.0000	0.0000	0.0000	0.0000
Hotel	7.76849e +006	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	476709	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	1.1173e +006	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.55674e +006	0.0000	0.0000	0.0000	0.0000
General Office Building	662515	0.0000	0.0000	0.0000	0.0000
Hotel	7.73483e +006	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	-33660	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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					
Mitigated	6.1526	0.0136	1.0035	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.7000e-003	5.0000e-005	4.1745
Unmitigated	6.1526	0.0136	1.0035	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.7000e-003	5.0000e-005	4.1745

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.3715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5000e-004	2.1300e-003	9.1000e-004	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4718	2.4718	5.0000e-005	5.0000e-005	2.4865
Landscaping	0.0316	0.0115	1.0026	5.0000e-005		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	1.6467	1.6467	1.6500e-003	0.0000	1.6880
Total	**6.1526**	**0.0136**	**1.0035**	**6.0000e-005**		**5.6900e-003**	**5.6900e-003**		**5.6900e-003**	**5.6900e-003**	**0.0000**	**4.1185**	**4.1185**	**1.7000e-003**	**5.0000e-005**	**4.1745**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.3715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5000e-004	2.1300e-003	9.1000e-004	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4718	2.4718	5.0000e-005	5.0000e-005	2.4865
Landscaping	0.0316	0.0115	1.0026	5.0000e-005		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	1.6467	1.6467	1.6500e-003	0.0000	1.6880
Total	**6.1526**	**0.0136**	**1.0035**	**6.0000e-005**		**5.6900e-003**	**5.6900e-003**		**5.6900e-003**	**5.6900e-003**	**0.0000**	**4.1185**	**4.1185**	**1.7000e-003**	**5.0000e-005**	**4.1745**

7.0 Water Detail

7.1 Mitigation Measures Water

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.0745	1.5483	0.0366	64.6764
Unmitigated	15.0745	1.5483	0.0366	64.6764

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.60033 / 5.42195	2.7285	0.2802	6.6200e-003	11.7064
Automobile Care Center	13.368 / 8.19328	4.2410	0.4356	0.0103	18.1960
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	7.2071 / 4.41726	2.2865	0.2348	5.5500e-003	9.8100
Hotel	18.3402 / 2.0378	5.8185	0.5976	0.0141	24.9639
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.0745**	**1.5483**	**0.0366**	**64.6764**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.60033 / 5.42195	2.7285	0.2802	6.6200e-003	11.7064
Automobile Care Center	13.368 / 8.19328	4.2410	0.4356	0.0103	18.1960
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	7.2071 / 4.41726	2.2865	0.2348	5.5500e-003	9.8100
Hotel	18.3402 / 2.0378	5.8185	0.5976	0.0141	24.9639
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.0745**	**1.5483**	**0.0366**	**64.6764**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	210.5118	12.4409	0.0000	521.5340
Unmitigated	210.5118	12.4409	0.0000	521.5340

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	60.72	12.3256	0.7284	0.0000	30.5362
Automobile Care Center	542.78	110.1794	6.5114	0.0000	272.9649
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	37.71	7.6548	0.4524	0.0000	18.9644
Hotel	395.84	80.3519	4.7487	0.0000	199.0685
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**210.5118**	**12.4409**	**0.0000**	**521.5340**

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	60.72	12.3256	0.7284	0.0000	30.5362
Automobile Care Center	542.78	110.1794	6.5114	0.0000	272.9649
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	37.71	7.6548	0.4524	0.0000	18.9644
Hotel	395.84	80.3519	4.7487	0.0000	199.0685
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**210.5118**	**12.4409**	**0.0000**	**521.5340**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Toyota Walnut Creek Operation (Year 2030)

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	40.55	1000sqft	0.31	40,546.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	1,650.00	Space	0.00	660,000.00	0
Hotel	723.00	Room	4.82	1,049,796.00	0
Apartments Mid Rise	132.00	Dwelling Unit	1.01	132,000.00	288
Automobile Care Center	142.09	1000sqft	3.26	142,094.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note 7

Land Use - Note 1

Construction Phase - Operation Only

Off-road Equipment - Operation Only

Vehicle Trips - Note 3

Woodstoves - Note 4

Energy Use - Note 8

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Mitigation - Note 6

Fleet Mix - Note 3

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	19.51	0.00
tblEnergyUse	T24NG	16.14	0.00
tblEnergyUse	T24NG	39.16	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberWood	22.44	0.00
tblFleetMix	HHD	7.0880e-003	0.00
tblFleetMix	HHD	7.0880e-003	1.00
tblFleetMix	LDA	0.58	0.58
tblFleetMix	LDA	0.58	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5730e-003	5.6130e-003
tblFleetMix	LHD2	5.5730e-003	0.00
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.00

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MDV	0.12	0.12
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	2.8620e-003	2.8820e-003
tblFleetMix	MH	2.8620e-003	0.00
tblFleetMix	MHD	7.4350e-003	7.4880e-003
tblFleetMix	MHD	7.4350e-003	0.00
tblFleetMix	OBUS	5.3700e-004	5.4100e-004
tblFleetMix	OBUS	5.3700e-004	0.00
tblFleetMix	SBUS	1.7970e-003	1.8100e-003
tblFleetMix	SBUS	1.7970e-003	0.00
tblFleetMix	UBUS	3.0500e-004	3.0700e-004
tblFleetMix	UBUS	3.0500e-004	0.00
tblLandUse	LandUseSquareFeet	40,550.00	40,546.00
tblLandUse	LandUseSquareFeet	142,090.00	142,094.00
tblLandUse	LotAcreage	0.93	0.31
tblLandUse	LotAcreage	14.85	0.00
tblLandUse	LotAcreage	24.10	4.82
tblLandUse	LotAcreage	3.47	1.01
tblLandUse	Population	378.00	288.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	0
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblVehicleTrips	CNW_TL	7.30	25.00
tblVehicleTrips	CNW_TTP	0.00	100.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	51.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	21.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	23.72	51.87
tblVehicleTrips	ST_TR	8.19	5.79
tblVehicleTrips	ST_TR	0.00	53.14
tblVehicleTrips	SU_TR	11.88	21.57
tblVehicleTrips	SU_TR	5.95	4.43
tblVehicleTrips	SU_TR	0.00	22.10
tblVehicleTrips	WD_TR	23.72	27.64
tblVehicleTrips	WD_TR	8.36	4.02
tblVehicleTrips	WD_TR	0.00	28.32
tblWoodstoves	NumberCatalytic	2.64	0.00
tblWoodstoves	NumberNoncatalytic	2.64	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2021	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
Maximum	**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**

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					
2021	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
Maximum	**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**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	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					
Area	6.1524	0.0136	1.0018	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.6900e-003	5.0000e-005	4.1743
Energy	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
Mobile	3.1539	3.9923	31.3198	0.0719	9.0041	0.0505	9.0546	2.4069	0.0473	2.4541	0.0000	6,651.4605	6,651.4605	0.3806	0.3266	6,758.2980
Waste						0.0000	0.0000		0.0000	0.0000	210.5118	0.0000	210.5118	12.4409	0.0000	521.5340
Water						0.0000	0.0000		0.0000	0.0000	15.0745	0.0000	15.0745	1.5483	0.0366	64.6764
Total	**9.3063**	**4.0059**	**32.3216**	**0.0720**	**9.0041**	**0.0562**	**9.0603**	**2.4069**	**0.0530**	**2.4598**	**225.5863**	**6,655.5790**	**6,881.1653**	**14.3714**	**0.3632**	**7,348.6827**

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	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					
Area	6.1524	0.0136	1.0018	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.6900e-003	5.0000e-005	4.1743
Energy	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
Mobile	3.1539	3.9923	31.3198	0.0719	9.0041	0.0505	9.0546	2.4069	0.0473	2.4541	0.0000	6,651.4605	6,651.4605	0.3806	0.3266	6,758.2980
Waste						0.0000	0.0000		0.0000	0.0000	210.5118	0.0000	210.5118	12.4409	0.0000	521.5340
Water						0.0000	0.0000		0.0000	0.0000	15.0745	0.0000	15.0745	1.5483	0.0366	64.6764
Total	**9.3063**	**4.0059**	**32.3216**	**0.0720**	**9.0041**	**0.0562**	**9.0603**	**2.4069**	**0.0530**	**2.4598**	**225.5863**	**6,655.5790**	**6,881.1653**	**14.3714**	**0.3632**	**7,348.6827**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	11/30/2021	11/29/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2021

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	0.0000	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
Total	**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**

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	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
Total	**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2021

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	0.0000	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
Total	**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**

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	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
Total	**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**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.1 Mitigation Measures Mobile

	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					
Mitigated	3.1539	3.9923	31.3198	0.0719	9.0041	0.0505	9.0546	2.4069	0.0473	2.4541	0.0000	6,651.4605	6,651.4605	0.3806	0.3266	6,758.2980
Unmitigated	3.1539	3.9923	31.3198	0.0719	9.0041	0.0505	9.0546	2.4069	0.0473	2.4541	0.0000	6,651.4605	6,651.4605	0.3806	0.3266	6,758.2980

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	718.08	648.12	539.88	1,775,615	1,775,615
Automobile Care Center	3,927.37	7,370.21	3064.88	12,550,579	12,550,579
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	394.96	89.62	28.39	873,428	873,428
Hotel	2,906.46	4,186.17	3202.89	8,807,862	8,807,862
User Defined Industrial	28.32	53.14	22.10	281,892	281,892
Total	7,975.18	12,347.25	6,858.14	24,289,377	24,289,377

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	100	0	0
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0
User Defined Industrial	9.50	7.30	25.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
Automobile Care Center	0.581761	0.056204	0.176583	0.119662	0.022036	0.005613	0.007488	0.000000	0.000541	0.000307	0.025113	0.001810	0.002882
Enclosed Parking with Elevator	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
General Office Building	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
Hotel	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	510369	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	1.15096e +006	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.5904e +006	0.0000	0.0000	0.0000	0.0000
General Office Building	696175	0.0000	0.0000	0.0000	0.0000
Hotel	7.76849e +006	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	476709	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	1.1173e +006	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	3.55674e +006	0.0000	0.0000	0.0000	0.0000
General Office Building	662515	0.0000	0.0000	0.0000	0.0000
Hotel	7.73483e +006	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	-33660	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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					
Mitigated	6.1524	0.0136	1.0018	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.6900e-003	5.0000e-005	4.1743
Unmitigated	6.1524	0.0136	1.0018	7.0000e-005		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	4.1185	4.1185	1.6900e-003	5.0000e-005	4.1743

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.3715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5000e-004	2.1300e-003	9.1000e-004	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4718	2.4718	5.0000e-005	5.0000e-005	2.4865
Landscaping	0.0314	0.0115	1.0009	5.0000e-005		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	1.6467	1.6467	1.6400e-003	0.0000	1.6878
Total	**6.1524**	**0.0136**	**1.0018**	**6.0000e-005**		**5.6900e-003**	**5.6900e-003**		**5.6900e-003**	**5.6900e-003**	**0.0000**	**4.1185**	**4.1185**	**1.6900e-003**	**5.0000e-005**	**4.1743**

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.3715					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5000e-004	2.1300e-003	9.1000e-004	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4718	2.4718	5.0000e-005	5.0000e-005	2.4865
Landscaping	0.0314	0.0115	1.0009	5.0000e-005		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	1.6467	1.6467	1.6400e-003	0.0000	1.6878
Total	**6.1524**	**0.0136**	**1.0018**	**6.0000e-005**		**5.6900e-003**	**5.6900e-003**		**5.6900e-003**	**5.6900e-003**	**0.0000**	**4.1185**	**4.1185**	**1.6900e-003**	**5.0000e-005**	**4.1743**

7.0 Water Detail

7.1 Mitigation Measures Water

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.0745	1.5483	0.0366	64.6764
Unmitigated	15.0745	1.5483	0.0366	64.6764

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.60033 / 5.42195	2.7285	0.2802	6.6200e-003	11.7064
Automobile Care Center	13.368 / 8.19328	4.2410	0.4356	0.0103	18.1960
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	7.2071 / 4.41726	2.2865	0.2348	5.5500e-003	9.8100
Hotel	18.3402 / 2.0378	5.8185	0.5976	0.0141	24.9639
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.0745**	**1.5483**	**0.0366**	**64.6764**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.60033 / 5.42195	2.7285	0.2802	6.6200e-003	11.7064
Automobile Care Center	13.368 / 8.19328	4.2410	0.4356	0.0103	18.1960
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	7.2071 / 4.41726	2.2865	0.2348	5.5500e-003	9.8100
Hotel	18.3402 / 2.0378	5.8185	0.5976	0.0141	24.9639
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**15.0745**	**1.5483**	**0.0366**	**64.6764**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	210.5118	12.4409	0.0000	521.5340
Unmitigated	210.5118	12.4409	0.0000	521.5340

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	60.72	12.3256	0.7284	0.0000	30.5362
Automobile Care Center	542.78	110.1794	6.5114	0.0000	272.9649
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	37.71	7.6548	0.4524	0.0000	18.9644
Hotel	395.84	80.3519	4.7487	0.0000	199.0685
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**210.5118**	**12.4409**	**0.0000**	**521.5340**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	60.72	12.3256	0.7284	0.0000	30.5362
Automobile Care Center	542.78	110.1794	6.5114	0.0000	272.9649
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	37.71	7.6548	0.4524	0.0000	18.9644
Hotel	395.84	80.3519	4.7487	0.0000	199.0685
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**210.5118**	**12.4409**	**0.0000**	**521.5340**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Scenario 2 Toyota Walnut Creek Operation (Year 2030) - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

FIRSTCARBONSOLUTIONS™

Construction Health Risk Assessment
Walnut Creek–Mixed Use Special District Project
City of Walnut Creek, Contra Costa County, California

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Report Date: December 9, 2022

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ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
AERMOD	American Meteorological Society/EPA Regulatory Model
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
ARB	California Air Resources Board
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO_2e	carbon dioxide equivalent
DPM	diesel particulate matter
EIR	Environmental Impact Report
EMFAC	Emission Factors Model
EPA	United States Environmental Protection Agency
GIS	Geographic Information System
HARP2	Hotspots Analysis and Reporting Program
hp	horsepower
HRA	Health Risk Assessment
MIR	Maximally Impacted Sensitive Receptor
MM	Mitigation Measure
MT	metric ton
NDSP	North Downtown Specific Plan
NO_X	nitrogen oxides
OEHHA	California Office of Environmental Health Hazard Analysis
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
REL	Reference Exposure Level
ROG	reactive organic gas
RMP	Risk Management Policy
SCAQMD	South Coast Air Quality Management District
SEIR	Supplemental Environmental Impact Report
SWIS	Solid Waste Information System
TAC	toxic air contaminant
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

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SECTION 1: INTRODUCTION

1.1 - Purpose and Methods of Analysis

This Construction Health Risk Assessment (HRA) was prepared to evaluate whether the estimated toxic air contaminant (TAC) emissions generated from construction of the Walnut Creek–Mixed Use Special District Project (proposed project) would cause significant impacts to receptors in the vicinity of the proposed project. The HRA was conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, *et seq*.) to support the preparation of a Draft Supplemental Environmental Impact Report (Draft SEIR). The analysis methodology follows the Bay Area Air Quality Management District (BAAQMD) and City of Walnut Creek recommendations for the quantification of emissions and evaluation of potential impacts on air resources.

1.2 - Project Description

1.2.1 - Site Location

The Applicant owns or controls approximately 6.2 acres of land in the City of Walnut Creek, in Contra Costa County, California. The Mixed Use Special District consists of a total of 10 parcels[1] (individually referred to as 2100 North Main [Site A], 2150 North Broadway [Site B], and 2100 North Broadway [Site C]) and is located entirely within the boundaries of the City's existing North Downtown Specific Plan (NDSP). This Mixed Use Special District is generally bounded by North Main Street (west), Pine Street (north), Civic Drive (east), and Ygnacio Valley Road (south). The Mixed Use Special District is located within Township 1N, Range 2W, Section 27 of the *Walnut Creek, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map (Latitude 37° 54' 32" North; Longitude 122° 3' 43" West).

The Applicant also leases land on North Broadway in the City where it currently operates an auto dealership (including auto sales, service, administration, inventory, and parts uses); these operations are located on approximately 1.4 acres of land (Site D), which is also located within the boundaries of the NDSP area and is near, but outside of, the 6.2-acre Mixed Use Special District. Similarly, the Applicant also leases land located at 1435 Pine Street, which abuts Site A and which the Applicant uses for automotive service within a 1-story building and associated surface parking lot (Site E). These lands are also located within the boundaries of the NDSP area but are outside of the 6.2-acre Mixed Use Special District. The potential redevelopment of Sites D and E are also evaluated in this analysis based on the existing land use designation of Automobile Sales/Service and Custom Manufacturing, which would remain applicable to both sites.

[1] The 6.2-acre Mixed Use Special District consists of 10 legal parcels. However, for ease of reference, the Mixed Use Special District has been further delineated into several sub-areas, designated collectively by relevant street addresses as follows: 2100 North Main (Site A), 2150 North Broadway (Site B), and 2100 North Broadway (Site C).

1.2.2 - Existing Land Use Activities

Summary of Mixed Use Special District Parcels

Table 1 summarizes the 10 parcels that constitute the 6.2-acre Mixed Use Special District. As noted in Table 1, these 10 parcels currently contain 66,464 square feet of development.

Table 1: Mixed Use Special District Summary

Site	Assessor's Parcel Number	Acreage (approximately)	Existing Development (square feet)	Notes
2100 North Main Street (Site A)[1]	173-131-042	0.41	9,304	2-story building formerly used as restaurant/former carpet cleaner. Surface parking lot.
	173-131-043	0.36	0	Surface parking lot.
	173-131-055	0.75	6,950	1-story building used for automotive service. Surface parking lot.
	173-131-056	0.57	0	Surface parking lot.
	173-131-057	0.40	3,175	1-story building used for automotive service and direct sales. Surface parking lot.
	173-131-060	0.28	4,058	1-story building used for automotive service. Surface parking lot.
	173-131-062	0.64	12,223	1-story building used for automotive. Surface parking lot.
	173-131-063	0.68	1,800	Surface parking lot.
	Site A Subtotal	*4.09*	*37,510*	–
2150 North Broadway (Site B)	173-134-003	1.40	28,954	2-story building formerly used as a gym.
2100 North Broadway (Site C)	173-142-001	0.70	0	Surface parking lot associated with Site D.
Mixed Use Special District Total		**6.20**	**66,464**	**–**

Notes:
[1] Site A also includes the following addresses: 2131 North Broadway, 2090 North Main Street, and 2087 North Main Street. Site A and these addresses are all identified as 2100 North Main Street in this analysis for ease of readability.
Source: Toyota Walnut Creek 2021.

Summary of Non-Special District Parcels

Table 2 summarizes two additional parcels located outside of the proposed Mixed Use Special District that Toyota Walnut Creek currently leases. Site D supports the existing Toyota Walnut Creek Dealership office, while Site E supports automotive service within a 1-story building and associated surface parking lot. As noted in Table 2, these two parcels currently contain 24,001 square feet of development.

Table 2: Non-special District Parcel Summary

Site	Assessor's Parcel Number	Acreage (approximately)	Existing Development (square feet)	Notes
2200 North Broadway (Site D)	173-134-001	1.42	14,729	Existing Leased Dealership Site
1435 Pine Street (Site E)	173-131-031	0.82	9,272	1-story building used for automotive service. Surface parking lot.
Non-Special District Total		**2.24**	**24,001**	–
Source: Toyota Walnut Creek 2021.				

Taken together, a total of 90,465 square feet of existing uses are present on Sites A through E.

1.2.3 - Project Summary

The Applicant proposes to amend the NDSP to create a new Auto Sales–Custom Manufacturing Mixed Use Special District overlay that would apply only to the 6.2-acre Mixed Use Special District, along with proposed related amendments to various policies throughout the NDSP to ensure consistency therewith.[2] The Applicant is also proposing to make related conforming amendments to the General Plan and Municipal Code to ensure consistency with the proposed NDSP amendments.

The goal of the proposed amendments is to facilitate the retention, enhancement, and long-term viability of the Applicant's auto sales and service uses within the City in an economically viable manner by allowing for redevelopment of lands within the Mixed Use Special District with other multiple potential mixed uses, including multi-family residential, hotel, or other nonresidential uses compatible with automotive sales, service, and ancillary uses.

In any redevelopment proposal under the NDSP (as amended), the Applicant would be required to retain and enhance its auto sales, service, and ancillary uses in accordance with the criteria and policies set forth in the NDSP (as amended). Under all circumstances, the auto sales, service, and ancillary uses would include the following components: (1) sales (including administrative space), (2) service (including quick service, maintenance, and repair [but not including any body work],

[2] As noted above, while the Mixed Use Special District boundaries would only cover the 6.2 acres of land, and not Sites D or E, it is possible that the future redevelopment contemplated under the NDSP (as amended) may trigger changes to these sites (where auto sales, services, and ancillary uses are permitted as of right). Accordingly, for purposes of a conservative analysis, where appropriate, this Draft SEIR assumes a certain amount of demolition and re-purposing with updated auto sales, service, and/or ancillary uses may occur.

detailing, car wash, and administrative space), (3) parts (service and retail), and (4) inventory display.

As noted above, the Applicant is only seeking City approval of the proposed amendments to the NDSP (and related conforming amendments to the General Plan and Municipal Code to ensure consistency) and a development agreement. This means that no specific individual development proposal has been submitted by the Applicant at this time. This is because the particular development parameters, including the mix of uses, allocation of those uses across the project site (including Sites D and E), and the ultimate size and scope of this future redevelopment are not currently known given, among other reasons, the shifting market dynamics and economic considerations in a post-COVID environment.

If the City adopts these requested legislative approvals and development agreement, then the next step would be for the Applicant to prepare and submit for consideration a specific development proposal in accordance with the NDSP (as amended), which would detail the specific development parameters, allocation, and mix of uses and other details of the proposal (specific development proposal). Any specific development proposal would be required to adhere to all applicable development standards, regulations, and policies set forth in the NDSP (as amended) as well as all applicable design guidelines and other applicable requirements.

Because the ultimate land use and site plan are not currently known and there are various ways in which the subject lands could ultimately be developed under the NDSP (as amended), in order to prepare an adequate analysis, this HRA initially considers three potential Development Scenarios based on the maximum reasonable development potential in light of reasonably available information, which could occur taking into consideration the size, potential mix of uses, and nature of the subject lands and other relevant factors. The most impactful Development Scenario associated with construction emissions is selected herein and used as the "worst-case scenario" in this HRA. Development assumptions associated with buildout for Development Scenarios 1, 2, and 3 are provided in Table 3, Table 4, and Table 5, respectively.

Table 3: Development Scenario 1

Scenario	New End Use	Development Potential	Maximum Height
1	Auto Sales and Service	142,094 square feet	35 feet
	Office	40,546 square feet	35 feet
	Office	97,221 square feet	35 feet
	Office	375,727 square feet	50 feet

Table 4: Development Scenario 2

Scenario	New End Use	Development Potential	Maximum Height
2	Auto Sales and Service	142,094 square feet	35 feet
	Office	40,546 square feet	35 feet
	Multi-family Residential	132 dwelling units	35 feet
	Hotel	723 keys	50 feet

Table 5: Development Scenario 3

Scenario	New End Use	Development Potential	Maximum Height
3	Auto Sales and Service	142,094 square feet	35 feet
	Office	40,546 square feet	35 feet
	Multi-family Residential	132 dwelling units	35 feet
	Multi-family Residential	526 dwelling units	50 feet

As noted above, the ultimate specific mix and allocation of uses pursued by the Applicant pursuant to the proposed amendments to the NDSP (and related conforming amendments to the General Plan and the Municipal Code) would be determined subsequent to the certification of the Draft SEIR at such time when a detailed specific development proposal is formally submitted to the City for consideration.[3] Under any development scenario, the Applicant would be required to retain and enhance operations of its auto sales, service, and ancillary uses within the Mixed Use Special District (as well as potentially located, in part, on Sites D and/or E) in a manner compatible with the other proposed uses in accordance with the criteria and policies set forth in the NDSP (as amended) in either a horizontal or vertical mixed use development. As explained herein, this HRA will evaluate the potential human health impacts that could occur as a result of construction of the proposed project based on reasonable worst-case assumptions that appropriately incorporate all reasonably available and relevant site-specific information, thereby publicly disclosing the range of uses that could potentially be developed as a result of implementing the NDSP (as amended) and the mixed use redevelopment contemplated thereby.

Potential Changes to Sites D and E

As noted above, the ultimate specific mix and allocation of uses would be determined subsequent to the certification of the Draft SEIR, at such time when a detailed specific development proposal is formally submitted to the City for consideration.[4] Under any development scenario, the Applicant would be required to retain and enhance operations of its auto sales, service, and ancillary uses.

[3] To ensure that all potential impacts are evaluated as mandated under CEQA, to the extent the specific development proposal involves discretionary approvals, then the City will be required to evaluate any such subsequent application to confirm whether it would result in any new or more severe environmental effects that are evaluated and disclosed in the Draft SEIR.

[4] The City will be required to comply with CEQA in connection with its consideration of any specific development proposal.

Pursuant to the proposed amendments to the NDSP (and related conforming amendments to the General Plan and the Municipal Code), the contemplated redevelopment of these auto sales, service, and ancillary uses, along with the other potential mixed uses, would occur within the Mixed Use Special District in either a horizontal or vertical mixed use development.

However, some component of these auto sales, service, and/or ancillary uses could also occur on Sites D and E, where such uses are currently and would continue to be permitted as of right under the NDSP (as amended). Therefore, to ensure a conservative analysis, this HRA assumes demolition and redevelopment of the buildings located at Sites D and E, which could allow for a portion of the contemplated redevelopment to be located thereon.

1.2.4 - Project Scenario Selection

Because the ultimate land use and site plan are not currently known and there are various ways in which the subject lands could ultimately be developed under the NDSP (as amended), each of the three potential Development Scenarios were considered to identify the development scenario that would have the maximum impact on air quality. While all Development Scenarios are similar in construction square footage, Scenario 2 has the potential for the greatest operational VMT and also provides the potential for introducing new sensitive receptors (e.g., residences) on-site while other construction activities occur. Therefore, Scenario 2 was selected as the worst-case scenario and is evaluated herein.

SECTION 2: METHODOLOGY AND SIGNIFICANCE THRESHOLDS

2.1 - Methodology

2.1.1 - Construction Equipment

Equipment Tiers and Emission Factors

Equipment tiers refer to a generation of emission standards established by the United States Environmental Protection Agency (EPA) and California Air Resources Board (ARB) that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the greater the tier it is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. Tier 2 engines were manufactured between 2001 and 2007. Tier 3 engines were manufactured between 2006 and 2011. Tier 4 engines are the newest and some incorporate hybrid electric technology; they were manufactured after 2007.

Construction emissions are generally calculated as the product of an activity factor and an emission factor. The activity factor for construction equipment is a measure of how active a piece of equipment is and can be represented as the amount of material processed, elapsed time that a piece of equipment is in operation, horsepower of a piece of equipment used, or the rate of fuel consumption.

The emission factor relates the process activity to the amount of pollutant emitted. Examples of emission factors include grams of emissions per VMT and grams of emissions per horsepower-hour. The operation of a piece of equipment is tempered by its load factor, which is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. This analysis uses the CalEEMod default load factors for off-road equipment.

On-site Off-road Equipment

CalEEMod contains built in inventories of construction equipment for a variety of land use construction projects that incorporate estimates of the number of pieces of equipment, their age, their horsepower, and emission control equipment tier mix from which rates of emissions are developed. These inventories were developed based on construction surveys for several land use projects. Table 6 presents the construction equipment used for the project as derived from CalEEMod. The CalEEMod default emission control equipment tier mix, hours of daily operation, and equipment type and quantity were used in this analysis for the estimation of unmitigated emissions from on-site diesel construction equipment.

Table 6: Default Construction Equipment

Construction Activity	Duration of Activity	Equipment	Equipment Amount	Average Hours per Day	Horsepower	Load Factor
Nonresidential Construction						
Demolition	20 Days	Concrete/Industrial Saws	1	8.0	81	0.73
		Excavators	3	8.0	158	0.38
		Rubber Tired Bulldozers	2	8.0	247	0.40
Site Preparation	10 Days	Rubber Tired Bulldozers	3	8.0	247	0.40
		Tractors/Loaders/Backhoes	4	8.0	97	0.37
Grading	20 Days	Excavators	1	8.0	158	0.38
		Graders	1	8.0	187	0.41
		Rubber Tired Bulldozers	1	8.0	247	0.40
		Tractors/Loaders/Backhoes	3	8.0	97	0.37
Building Construction	230 Days	Cranes	1	7.0	231	0.29
		Forklifts	3	8.0	89	0.20
		Generator Sets	1	8.0	84	0.74
		Tractors/Loaders/Backhoes	3	7.0	97	0.37
		Welders	1	8.0	46	0.45
Paving	20 Days	Pavers	2	8.0	130	0.42
		Paving Equipment	2	8.0	132	0.36
		Rollers	2	8.0	80	0.38
Architectural Coating	20 Days	Air Compressors	1	6.0	78	0.48
Residential Construction						
Site Preparation	2 Days	Rubber Tired Bulldozers	1	7.0	247	0.40
		Tractors/Loaders/Backhoes	1	8.0	97	0.37
		Graders	1	8.0	187	0.41
Grading	4 Days	Graders	1	8.0	187	0.41
		Rubber Tired Bulldozers	1	8.0	247	0.40
		Tractors/Loaders/Backhoes	2	7.0	97	0.37
Building Construction	200 Days	Cranes	1	6.0	231	0.29
		Forklifts	1	6.0	89	0.20
		Generator Sets	1	8.0	84	0.74
		Tractors/Loaders/Backhoes	1	6.0	97	0.37
		Welders	3	8.0	46	0.45

Construction Activity	Duration of Activity	Equipment	Equipment Amount	Average Hours per Day	Horsepower	Load Factor
Paving	10 Days	Cement and Mortar Mixers	1	6.0	9	0.56
		Pavers	1	6.0	130	0.42
		Paving Equipment	1	8.0	132	0.36
		Rollers	1	7.0	80	0.38
		Tractors/Loaders/Backhoes	1	8.0	97	0.37
Architectural Coating	10 Days	Air Compressors	1	6.0	78	0.48
Source: CalEEMod Output (Attachment A).						

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SECTION 3: MODELING PARAMETERS AND ASSUMPTIONS

3.1 - Model Selection and Guidance

Emission factors represent the emission rate of a pollutant over a given time or activity; for example, grams of NO_X per Vehicle Miles Traveled (VMT) or grams of NO_X per horsepower-hour of equipment operation. The ARB has published emission factors for on-road mobile vehicles/trucks in the Emission Factors (EMFAC) mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. Activity levels measure how active a piece of equipment is and can be represented as the amount of material processed, elapsed time that a piece of equipment is in operation, horsepower of a piece of equipment used, or VMT per day. An air emissions model combines the emission factors and the various levels of activity and calculates the emissions for the pieces of equipment or vehicles during construction and operations.

The CalEEMod Version 2020.4.0 was developed in collaboration with the South Coast Air Quality Management District (SCAQMD) and other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with construction and operation from various land uses. The modeling follows BAAQMD guidance where applicable from its CEQA Air Quality Guidelines.

3.2 - Air Pollutants Assessed

TACs are air pollutants present in minuscule amounts in the air that could increase the chances of experiencing health problems if a person receives exposure to them. Exposures to TAC emissions can have both chronic long-term (over a year or longer) and acute short-term (over a period of hours) health impacts. Construction-period TAC emissions could contribute to increased health risks to nearby residents or other sensitive receptors.

This analysis assesses the potential health impacts to surrounding sensitive receptors resulting from TAC emissions during project construction. The TACs of greatest concern are those that cause serious health problems or affect many people. Health problems can include cancer, respiratory irritation, nervous system problems, and birth defects. Some health problems occur soon after a person inhales TACs. These immediate effects may be minor, such as watery eyes; or they may be serious, such as life-threatening lung damage. Other health problems may not appear until many months or years after a person's first exposure to the TAC. Cancer is one example of a delayed health problem. Given the proposed construction practices and equipment types and activities, the TAC of concern during project construction would be diesel particulate matter (DPM) principally generated from the operation of construction vehicles and equipment.

For purposes of this analysis, exhaust emissions of DPM are represented as exhaust emissions of $PM_{2.5}$. Studies indicate that DPM poses the greatest health risk among airborne TACs. A 10-year ARB research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic long-term health risk. DPM

differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel-fueled internal combustion engines emit DPM, the composition of the emissions varies, depending on engine type and age, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. The CalEEMod emissions model has been used to estimate DPM emissions during construction and operation of the proposed project.

3.3 - Modeling Assumptions and Methodology

3.3.1 - Construction Assumptions

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and type of equipment utilized. Construction emissions result from on-site and off-site activities. On-site exhaust emissions principally result from the activity levels of heavy-duty construction equipment, motor vehicle operation, and the use of various products such as architectural coatings. Off-site exhaust emissions are caused by motor vehicle exhaust from vendor delivery vehicles, worker traffic, and soil and demolition debris hauling trucks.

Construction activities occurring on the approximately 8.43-acre project site would consist of demolition, site preparation, grading, building construction, paving, and architectural coating of the inside and outside of the proposed buildings. For each construction activity, the construction equipment quantity and daily operating hours represent the average daily equipment operation over the duration of that construction activity. Table 6, above, presents the number of assumed pieces of construction equipment along with hours of operation per day, horsepower, and load factor. Where project-specific information was not available or known, default assumptions were used to complete emissions modeling.

The activity for construction equipment is based on the horsepower and load factors of the equipment. In general, horsepower is the power of an engine—the greater the horsepower, the greater the power. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. This analysis uses the CalEEMod default load factors for off-road equipment.

Operation of the proposed project is anticipated to first occur in 2025. In the absence of a detailed construction schedule for Scenario 2, the CalEEMod generated default construction schedule was utilized to characterize construction of the proposed project. This utilizes an assumed start date of January 1, 2024 for demolition and a start date of January 27, 2024, for site preparation phases. The emissions are determined by the number of days of active construction for each phase as outlined in Table 7 with the corresponding construction equipment assignments and usage. The assignment of specific dates allows the model to determine the age of the equipment and regulatory requirements for on and off-source vehicle emissions but is not otherwise specific to modeling run results. If a project was to be built dates other than these specified dates but in the same year, results would be identical. If the project was built in a later year than specified in the default schedule, these results

would be conservative overestimates because of the phase-in of cleaner equipment and increasingly stringent regulations on exhaust emissions that would occur in future years.

Utilizing available information from the Applicant, an estimated 90,465 square feet of building space and 277,617 square feet of pavement could be demolished and removed from the site during project construction. As such, a total of 14,595 tons of demolition debris is anticipated to be hauled off the project site. Refer to the Demolition Debris Calculations sheet contained in Attachment A for more information. CalEEMod default values for trip lengths and vehicle fleets associated with demolition debris hauling trips were used for this analysis.

Approximately 255,773 cubic yards of soil would be exported during grading activities to make room for the parking garages being considered. Based on available information and reasonable assumptions, it is assumed that a small amount of soils (approximately 1,210 cubic yards of impacted, non-hazardous waste) would be excavated during grading activities and would therefore need to be hauled to an accepting facility. The nearest facility which accepts Class II non-hazardous wastes is the Keller Canyon Landfill, which is located approximately 14 miles away, at 901 Bailey Road, Pittsburg.

Table 7: Construction Off-site Trips

Construction Activity	Worker (Trips per day)	Vendor (Trips per day)	Haul (Total Trips)
Nonresidential Construction			
Demolition	15	0	1,443
Site Preparation	18	0	0
Grading	15	0	31,972
Building Construction	777	310	0
Paving	15	0	0
Architectural Coating	155	0	0
Residential Construction			
Site Preparation	8	0	0
Grading	10	0	0
Building Construction	95	14	0
Paving	13	0	0
Architectural Coating	19	0	0
Source: CalEEMod Output (Attachment A).			

As demonstrated in Table 8, all soil and demolition debris hauling activities were included in the nonresidential construction models to keep the emission results associated with the development of residential land uses separate from all other emission results. For the sake of appropriately distributing off-site emissions among Sites A, B, C, D, or E in the air dispersion modeling, emissions

generated from soil and demolition debris hauling were separated from the emission results associated with the development of nonresidential land uses and recalculated to match the activity which would occur on a specific site (i.e., Site A, B, C, D, or E). As shown in Table 8, emissions generated from soil hauling activities were assigned to the development of the specific site (i.e., Site A, B, C, D, or E) which would experience that proportion of soil off-haul, and emissions generated from demolition debris hauling activities were assigned to the development of the specific site (i.e., Site A, B, C, D, or E) which would experience that proportion of demolition debris off-haul.

Table 8: Construction Soil Export and Demolition Debris Assignments

Project Site	Soil Export (Cubic Yards)	Soil Export Emissions (Tons of $PM_{2.5}$ Exhaust)	Demolition Debris (Tons of Debris)	Off-Site Demolition Emissions (Tons of $PM_{2.5}$ Exhaust)
Site A	199,248	0.0093	7,026	0.00037
Site B	39,835	0.0019	2,540	0.00013
Site C	16,690	0.00078	1,160	0.00006
Site D	–	–	2,448	0.00013
Site E	–	–	1,421	0.00007
Totals	255,773	0.00119	14,595	0.00076
Source: Attachment A.				

For each modeling run, residences on Site A, Site B or Site C, emissions were determined from soil and debris hauling for the balance of the buildout activities outside of the selected residential site. For example, the soil hauling emissions associated with "Residences on Site A" in Table 8 are the combined soil hauling emissions associated with Sites B-E in Table 8.

Table 9: Soil and Demolition Debris Hauling Distribution by Modeling Run

Modeling Run	Off-Site Soil Hauling Emissions (Tons of $PM_{2.5}$ Exhaust)	Off-Site Demolition Debris Hauling Emissions (Tons of $PM_{2.5}$ Exhaust)	Total Off-Site Hauling Emissions(Tons of $PM_{2.5}$ Exhaust)
Residences on Site A	0.00263	0.00039	0.00302
Residences on Site B	0.01005	0.00063	0.01068
Residences on Site C	0.01112	0.00070	0.01182
Source: Attachment A.			

3.3.2 - Estimation of Diesel Particulate Matter

As previously discussed, construction DPM emissions—represented as $PM_{2.5}$ exhaust—were estimated using CalEEMod, Version 2020.4.0. On-site construction emissions for the proposed project were assumed to be distributed over the project site with a working schedule of 8 hours per

day, 5 days per week, while off-site construction emissions (e.g., hauling emissions) were assumed to be distributed over the nearby roadway network within 1,000 feet of the project site. The HRA considered both the impact of the project on the community or off-site receptors as well as the project's residential building(s) as receptors to nonresidential construction of other sites within the project. The residential and nonresidential land uses were modeled in CalEEMod separately to isolate the impact of the project construction on on-site residents, as described below.

Since residential land uses could be developed on Sites A, B, or C, three separate modeling runs were prepared and analyzed to identify the Maximally Impacted Sensitive Receptor (MIR) for each receptor type during unmitigated project construction. Each modeling run conservatively assumes that the future residences would be the first land uses constructed and would be operational when the balance of the project (or nonresidential) land uses are constructed. The residential construction is assumed to occur on one of the possible sites (Sites A, B, or C) first, followed by subsequent nonresidential construction. If Site A is selected for the Residential run, then Nonresidential refers to the buildout of all nonresidential land uses on Sites B, C, D, and E. If Site B is selected, the nonresidential construction would occur across all other sites (i.e., Sites A, C, D, and E), with the exception of Site B. Similarly, if Site C is selected for residential construction, the nonresidential buildout, in short notation, would be "not Site C."

Table 10 contains the on-site and off-site DPM emissions for each of the three modeling runs (Scenario 2 with Residences on Sites A, B or C) utilized in the air dispersion modeling for this HRA. Off-site DPM emissions have been adjusted to reflect only a portion of the emissions occurring within 1,000 feet of the project site. Emission estimates shown in Table 10 contain residential and nonresidential CalEEMod modeling results individually in order to separate the emissions and impact from the initial construction of residences from the buildout of the subsequent nonresidential construction, which would potentially impact the on-site receptors.

The surrounding community and sensitive receptors would be subject to the sum of the residential and nonresidential construction and haul activities or the entire buildout of all Sites A, B, C, D, and E. The emission distribution between Sites A-E depends on the modeling runs, and which site (Site A, B, or C) is selected for residential development. The emissions assigned to each site for each modeling run are detailed in Attachment B.

Table 10: Project DPM Construction Emissions

Modeling Run	On-site DPM—Area (tons)[1]	Off-site DPM—Road Segments (tons)[1, 2]	Total Local DPM Emissions (tons)[1]
Residences on Site A			
Nonresidential Build (Site B, C, D, E)	0.091270	0.00374	0.09502
Residential Build (Site A)	0.046390	0.001547	0.047935
Total Buildout	0.13766	0.005287	0.142955

Modeling Run	On-site DPM—Area (tons)[1]	Off-site DPM—Road Segments (tons)[1, 2]	Total Local DPM Emissions (tons)[1]
Residences on Site B			
Nonresidential Build (Site A, C, D, E)	0.091270	0.00483	0.91753
Residential Build (Site B)	0.046390	0.00046	0.04685
Total Buildout	0.13766	0.00529	0.138603
Residences on Site C			
Nonresidential Build (Site A,B,D,E)	0.091270	0.00501	0.09628
Residential Build (Site C)	0.046390	0.00031	0.04670
Total Buildout	0.13766	0.00532	0.14298

Notes:
DPM = diesel particulate matter
[1] Emissions herein do not reflect the application of any construction mitigation measures.
[2] The off-site emissions are adjusted to represent construction vehicle travel routes from within approximately 1,000 feet of the project site. Off-site emissions shown here reflect the 1,000-foot adjustment.
Source: Attachment A; Attachment B.

3.3.3 - Air Dispersion Modeling

The BAAQMD has developed a set of guidelines[5] that recommends using the American Meteorological Society and EPA Regulatory Model (AERMOD) air dispersion model to estimate emission concentrations for use in identifying the cancer risk and hazard index associated with sensitive receptor exposure to project construction emissions. The following modeling parameters were employed using AERMOD, Version 21112, to estimate DPM emission concentrations that were used in the associated cancer risk and hazard calculations.

1. Sensitive receptors (e.g., schools, daycare facilities, hospitals, care facilities, residences) in the immediate project vicinity are represented in the model with discrete Cartesian receptor at a height of 1.5 meters for ground level receptors, at breathing height. For schools and large residential developments, a boundary of discrete receptors was placed around the perimeter of that land use to identify potential impacts at the closest point to the project site, including outdoor play areas for schools. For each modeling run, the site which would host the proposed future residences, a boundary of discrete Cartesian receptors were placed on that site in the corresponding nonresidential air dispersion model.

   The closest sensitive receptors to the project site, in all directions, include the following:

   - Multi-family apartments approximately 130 feet southeast of Site C of the project site.
   - Multi-family apartments approximately 700 feet south of Site A of the project site.

[5] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. December. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed April 13, 2021.

- Multi-family apartments approximately 1,550 feet southwest of Site A of the project site.
- Future Academy, a school which teaches grades 6 through 12, approximately 1,790 feet southwest of Site A of the project site.
- Multi-family apartments approximately 850 feet west of Site A of the project site.
- Multi-family apartments approximately 525 feet west of Site E of the project site.
- Multi-family apartments/condos approximately 800 feet north of Site E of the project site.
- Multi-family apartments/condos approximately 680 feet north of Site B of the project site.
- Multi-family apartments/condos approximately 500 feet east of Site B of the project site.
- Walnut Creek Intermediate School, a school which teaches grades K through 8, approximately 760 feet east of Site B of the project site.

2. A nested Cartesian grid was placed in AERMOD with the following spacing parameters:
   - 20 meters spacing within the project site and up to 200 meters from the project site
   - 50 meters spacing between 200 meters and 500 meters from the project site; and
   - 100 meters spacing between 500 meters and 1,000 meters from the project site

3. The Urban dispersion coefficient was used as greater than 50 percent of the surrounding three kilometers is developed.

4. Emissions were characterized in the model using various polygon area and line volume sources to represent different activities. On-site construction activities are represented with one polygon area source for each of the Sites A, B, C, D, and E. The proportional emissions generated on each of those sites corresponds with the proportional acreage of that site. Off-site construction hauling and vendor truck operation during project construction is represented with line volume sources along North Broadway Avenue, North Main Street, Civic Drive, Parkside Drive, and Ygnacio Valley Way.

   Off-site emissions were adjusted to account for off-site emissions that would occur within 1,000 feet roadway network in the vicinity of the project site (see Project Construction Emissions calculation sheets in Attachment B). Each line volume source (roadway link) was assigned an emission rate equal to its proportion of the off-site emissions based on the length of the roadway segment in the 1,000 feet area divided by the combined length of all roadway lengths in this area (2.0 miles).

5. Meteorological data from the Livermore Airport Air Monitoring Station was used. This station was selected as it is the closest representation of nearby geological characteristics and elevation generally representative of the project site. This Air Monitoring Station provides preprocessed meteorological data covering the years 2009-2014. All air dispersion models used all years of available meteorological data.

3.3.4 - Estimation of Risk and Hazards

The BAAQMD has developed a set of guidelines for estimating cancer risks resulting from exposure to TACs.[6,7] These guidelines recommend the use of Hotspots Analysis and Reporting Program (HARP2) software to identify the cancer risk associated with DPM generated during project construction. HARP2 assesses exposure in yearly increments.

Two different runs were evaluated for the HRA: 1) the project as a source of emissions and the impact on the surrounding off-site community and sensitive receptors (schools and residences identified in item 1 in Section 3.3.3 above) and 2) the project as a receptor to itself with on-site residential buildings (on Sites A, B or C) as a receptor to subsequent nonresidential construction from the other four sites. Exposure durations were selected consistent with CalEEMod construction defaults and conservative with respect to the California Office of Environmental Health Hazard Assessment (OEHHA) risk assessment methodology.

Project as a Source (Off-site Receptors)

Scenario 2 was modeled to assess the impact of the full-buildout of all land uses (residential and nonresidential) of Sites A, B, C, D and E on the off-site community receptors including residences and schools as sensitive receptors.

The default construction operations for the residential and nonresidential CalEEMod construction modeling runs were 226 and 320 workdays, respectively, with default 5-day work weeks. This corresponds to a total of 546 workdays and the equivalent 764 Calendar days (2.1 years). For DPM exposure and the use of HARP2 to conduct the HRA, it was assumed that all buildout occurs over 2 years and one trimester, with the exposure assessment starting at age -0.25 and extending to an age exposure of 2 years (2.25 years total). This exposure period aligns with the duration of the infant age bin (ages third trimester and infant 0–2 years age bin) for which the OEHHA risk assessment methods assume increased age sensitivity and increased risk due to early-life exposure assumptions. The HRA results using this approach would be conservative for longer construction durations extending beyond 2.25 years, since in these modeling runs, the exposure would be spread out over a longer time and the exposure would not be concentrated in the infant exposure years (0-2) where the age sensitivity factors multiply the risk by a factor of 10.

Project as a Receptor (On-site Receptors)

A 1-year plus one trimester exposure duration was selected for exposure of the on-site residential receptors to the subsequent nonresidential project development (320 work day, 448 calendar days or 1.23 years. This assessment for the project as a receptor is also conservative and because it starts with the third trimester infant (0–2 year) age-bin with increased sensitivity where risks are multiplied by an age sensitivity factor of 10.

[6] Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines. December. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en. Accessed January 24, 2022.

[7] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. December. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en. Accessed January 24, 2022.

The specific HARP2 risk scenario inputs used are outlined below. Following BAAQMD guidance, the residential cancer risk was assessed using the Risk Management Policy (RMP) – Inhalation only method for residential exposure. Sensitive receptors such as schools were also evaluated conservatively based on residential exposure parameters, but with adjustments for the specific age populations at those locations.

Off-Site Residential Receptors (Community Risk–Project as a Source)

1. Analysis Type: Cancer Risk
2. Receptor Type: Individual Resident
3. Exposure Start Age: Third Trimester
4. Residential Exposure Duration: User Defined (Tier 2)–2 Year
5. Intake Rate Percentile: Risk Management Policy (RMP)–*Inhalation Only*

Preschool Receptors

1. Analysis Type: Cancer Risk
2. Receptor Type: Individual Resident
3. Exposure Start Age: 3 Years Old
4. Residential Exposure Duration: User Defined (Tier 2) – 2 Year
5. Intake Rate Percentile: Risk Management Policy (RMP)–*Inhalation Only*

Elementary School Receptors

1. Analysis Type: Cancer Risk
2. Receptor Type: Individual Resident
3. Exposure Start Age: 5 Years Old
4. Residential Exposure Duration: User Defined (Tier 2) – 2 Year
5. Intake Rate Percentile: Risk Management Policy (RMP)–*Inhalation Only*

Middle School Receptors

1. Analysis Type: Cancer Risk
2. Receptor Type: Individual Resident
3. Exposure Start Age: 11 Years Old
4. Residential Exposure Duration: User Defined (Tier 2) – 2 Year
5. Intake Rate Percentile: Risk Management Policy (RMP)–*Inhalation Only*

Residential On-Site Receptors (Project Sites A, B or C as a Receptor)

1. Analysis Type: Cancer Risk
2. Receptor Type: Individual Resident
3. Exposure Start Age: Third Trimester
4. Residential Exposure Duration: User Defined (Tier 2)–1 Year
5. Intake Rate Percentile: Risk Management Policy (RMP)–*Inhalation Only*

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted using HARP2 using the OEHHA Derived method for all off-site receptors, including nearby workers. Adverse health effects are evaluated by comparing the annual receptor concentration of each

chemical compound with the appropriate reference exposure limit. Available reference exposure limits promulgated by the OEHHA were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a Hazard Index. The Hazard Index is a ratio of the predicted concentration of the project's emissions to a concentration considered acceptable to public health professionals, termed the reference exposure limit. 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 Reference Exposure Level (REL). For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a reference exposure limit of 5 micrograms per cubic meter ($\mu g/m^3$). The principal toxicological endpoint assumed in this assessment was through inhalation.

SECTION 4: HEALTH RISK ASSESSMENT

This section assesses the cancer risk and chronic health indices for DPM to determine the health impact significance of the proposed project's construction emissions on nearby receptors. The methodology follows the BAAQMD CEQA Air Quality and Health Risk Assessment Protocols and Guidelines, which set forth recommended thresholds of significance and analysis methodologies and provide guidance on mitigating significant impacts.

4.1 - Significance Thresholds

4.1.1 - Project Community Risk and Hazards

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with DPM because emissions of these pollutants can have significant health impacts at the local level.

Project-level emissions of DPM from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic, or acute) hazard index greater than 1.0 would be a significant cumulatively considerable contribution.
- An incremental increase of greater than 0.3 µg/m^3 annual average $PM_{2.5}$ from a single source would be a significant cumulatively considerable contribution.

4.1.2 - Cumulative Community Risk and Hazards

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a considerable cumulative impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the proposed project, meets any of these conditions:

- Has excess cancer risk levels of more than 100 in one million or a chronic non-cancer hazard index (from all local sources) greater than 10.0.
- Exceeds 0.8 µg/m^3 annual average $PM_{2.5}$.

In February 2015, the OEHHA adopted new health risk assessment guidance that includes several efforts to be more protective of children's health. These updated procedures, which are incorporated in HARP2 and this analysis, include age sensitivity factors to account for the higher

sensitivity of infants and young children to cancer-causing chemicals and age-specific breathing rates.[8]

4.2 - Health Impact Analysis

4.2.1 - Maximally Impacted Receptor Identification

Table 11 provides the coordinates and maximum DPM concentrations for each residential receptor type (on- and off-site) as well as for the maximum exposed off-site worker for each modeling run. Residences experience the highest health risks of all sensitive receptors due to the longest exposure durations and the possibility of exposure starting in infancy. All other sensitive receptors will have risks the same or less than a resident, due to shorter exposure durations and populations that are not in the infant/early-life sensitivity category.

As shown in Table 10, the maximum concentrations or impacts are for the run where residences would be constructed on Site C for all three types of receptors analyzed: the on-site resident, the off-site resident and the off-site worker. HARP2 was used to calculate the flagpole breathing height concentrations as well as the cancer and chronic health risks corresponding to these concentrations.

Table 11: Receptor DPM Concentrations by Modeling Run

Modeling Run	MIR Label (From AERMOD)	MIR Coordinates (x, y meters; UTM)	Total DPM Concentration (µg/m³)
Residences on Site A			
On-site A Residential MIR	SiteA-015	582342, 4196162	0.138
Off-site Residential MIR	Res-327	582626, 4196098	0.042
Off-Site Worker MIR	Grid 2734	582583, 4196152	0.270
Preschool MIR	PS-001	581887, 4195456	0.0004
Elementary School MIR	ES-158	582789, 4196170	0.0124
Middle School MIR	MS-001	581849, 4195647	0.0010
Residences on Site B			
On-site B Residential MIR	SiteB-004	582384, 4196095	0.107
Off-site Residential MIR	Res-327	582626, 4196098	0.033
Off-Site Worker MIR	Grid 2731	582563, 4196213	0.203
Preschool MIR	PS-010	581896, 4195456	0.0004
Elementary School MIR	ES-383	582788, 4196175	0.0123
Middle School MIR	MS-010	581849, 4195647	0.0010

[8] California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments. February. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed January 24, 2022.

Modeling Run	MIR Label (From AERMOD)	MIR Coordinates (x, y meters; UTM)	Total DPM Concentration (µg/m³)
Residences on Site C			
On-site A Residential MIR	Site C-014	582512, 4196132	0.192
Off-site Residential MIR	Res-327	582626, 4196098	0.066
Off-site Worker MIR	Grid 2734	582583, 4196152	0.27
Preschool MIR	PS-001	581887, 4195456	0.0004
Elementary School MIR	ES-158	582789, 4196170	0.0130
Middle School MIR	MS-001	581849, 4195647	0.0010

Notes:
AERMOD = American Meteorological Society/EPA Regulatory Model
DPM = diesel particulate matter
MIR = Maximally Impacted Sensitive Receptor
UTM = Universal Transverse Mercator
Source: Attachment A; Attachment B.

4.2.2 - Project Community Risk and Hazard Impacts

Table 12 summarizes the unmitigated construction cancer risk and hazard index results for the MIRs considering all modeling runs, identified above.

Table 12: Unmitigated Cancer Risks and Chronic Non-cancer Hazards

Impact Run	Maximum Cancer Risk[1] (risk per million)	Maximum Chronic Non-cancer Hazard Index[2]
On-site Residential MIR Impact (Project as a receptor)		
Residences on Site A	24.6	0.028
Residences on Site B	19.0	0.021
Residences on Site C	34.2	0.038
Thresholds of Significance	**10**	**1**
Exceeds Individual Source Threshold?	**Yes**	**No**
Off-site Residential MIR Impact (Project as a Source)		
Residences on Site A Run	14.4	0.008
Residences on Site B Run	11.4	0.007
Residences on Site C Run	22.5	0.013
Thresholds of Significance	**10**	**1**
Exceeds Individual Source Threshold?	**Yes**	**No**
School Sensitive Receptors (Residences on Site C Run Only)		
Preschool MIR	0.034	0.0001

Impact Run	Maximum Cancer Risk[1] (risk per million)	Maximum Chronic Non-cancer Hazard Index[2]
Elementary School MIR	1.01	0.0026
Middle School MIR	0.07	0.0002
Thresholds of Significance	**10**	**1**
Exceeds Individual Source Threshold?	**No**	**No**

Notes:
MIR = Maximally Impacted Sensitive Receptor
REL = Reference Exposure Level
TAC = toxic air contaminant
No DPM mitigation is applied in this run.
The only mitigation considered is BAAQMD's fugitive dust best management practices, which only affects emissions of fugitive dust and not vehicle exhaust or DPM emissions.

As shown in Table 12, construction of the proposed project would emit DPM emissions that would result in cancer risk above the BAAQMD's recommended threshold for both existing off-site and future on-site residential MIRs for all three runs where residences are developed on-site. The maximum on-site cancer risk was predicted for the run were residences on Site C were exposed to subsequent nonresidential construction emissions from the balance of the project. As such, Measure AQ-1 is recommended to reduce potential cancer risk impacts at the off-site and future on-site residential MIRs to less than significant. Measure AQ-1 would require the use of construction equipment which meets or exceeds the ARB's and EPA's Tier 4 Final emission standards for engines greater than 50 horsepower during project construction.

Mitigated construction health impacts are shown in Table 13 to demonstrate the efficacy of Measure AQ-1 on reducing cancer risk impacts at the identified MIRs which would exceed BAAQMD significance thresholds. Since Site C was demonstrated to have the worst potential for health impacts, the mitigated results were calculated only for this buildout. For any run where residences were built on Sites A or B, the impacts to residential on and off-site receptors would be less than those calculated for Site C Residential run.

The following lists the MIR identified during mitigated project construction for each receptor type, for Scenario 2 with Residences Constructed on Site C.

- Off-site Residential MIR: Multi-family residential development, approximately 130 feet southeast of Site C.
- Off-Site Chronic Worker MIR – located at the boundary of the southeast corner of Site C.
- Preschool MIR: Walnut Creek Presbyterian Church, approximately 2,240 feet southwest of Site A.
- Elementary School MIR: Walnut Creek Intermediate School, approximately 670 feet east of Site C.

- Middle School MIR: Futures Academy, approximately 1,810 feet southwest of Site A .

As shown in the table, implementation of Measure AQ-1 would reduce potential cancer risk impacts at the off-site and future on-site residential MIRs during the Residences on Site C run to less than significant levels. Cancer risk and chronic health effects at other sensitive receptors, such as schools would also be less than significant and are listed here only for the school type with the highest, but less than significant, impact.

Table 13: Mitigated Cancer Risks and Chronic Non-cancer Hazards

Impact Run	MIR Label (From AERMOD)	Cancer Risk[1] (risk per million)	Chronic Non-cancer Hazard Index[2]	TAC Concentration[3] (µg/m³)
On-Site Residential MIR Impact				
On-Site Residential MIR	Site C-013	5.06	0.006	0.03
Thresholds of Significance	**—**	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**—**	**No**	**No**	**No**
Off-Site Residential MIR Impact				
Off-Site Residential	Res-327	6.93	0.004	0.02
Off-Site Chronic MIR	Grid 2735	—	0.017	0.09
Walnut Creek Presbyterian Church (Preschool)	PS-001	0.009	0.00002	0.0001
Walnut Creek Intermediate School (Elementary School)	ES-158	0.15	0.0007	0.0036
Futures Academy (Middle School)-5	MS-005	0.018	0.00005	0.00027
Thresholds of Significance	**—**	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**—**	**No**	**No**	**No**

Notes:
MIR = Maximally Impacted Receptor
TAC = toxic air contaminant
µg/m³ = micrograms per cubic meter
[1] Cancer risk is identified by multiplying the risk sum from HARP2 by 1,000,000.
[2] Chronic non-cancer hazard index was calculated by HARP2.
[3] DPM GLC concentrations were calculated in HARP2.
[4] Emission Concentration Source: Attachment B.
Thresholds Source: Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May.

While the health impacts experienced at existing off-site and future on-site residential MIR would be reduced to less than significance levels after incorporation of Measure AQ-1, there are some

limitations of this analysis based on its assumptions. The construction of nonresidential land uses after residences are constructed on the same site (i.e., a residence is built on Site C and then a nonresidential land use is built on Site C) would present new potential impacts to future on-site residential receptors beyond what is identified in this HRA.

To maintain the effectiveness of Measure AQ-1 to reduce potential human health impacts to sensitive receptors to less than significant levels, Measure AQ-2 is recommended to prevent nonresidential land uses from being constructed on the same site where future on-site residences are located. Measure AQ-2 would require the Applicant to conduct an additional HRA for this on-site receptor before any subsequent construction was conducted impacting residents on the same Site. With the incorporation of Measures AQ-1 and AQ-2, the proposed project would result in less than significant impacts to nearby existing and future sensitive receptors in accordance with the BAAQMD's project-level significance threshold.

4.2.3 - Cumulative Community Risk and Hazard Impacts

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. For a project-level analysis, BAAQMD provides several tools for use in screening potential sources of TACs. The BAAQMD-provided tools used to assess the potential cumulative impacts from TACs are described below:

- **Health Risks for Local Roadways.** The BAAQMD precalculated concentrations and the associated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For certain areas, the BAAQMD also includes local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a Geographic Information System (GIS) raster file.
- **Freeway Screening Analysis Tool**. The BAAQMD prepared a GIS tool that contains pre-estimated cancer risk and $PM_{2.5}$ concentration increases for highways within the Bay Area. The closest highway to the project site in Highway 680, as close as 920 feet west of the project site.
- **Stationary Source Risk and Hazard Screening Tools**. The BAAQMD prepared a web-based tool[9] with the location of permitted stationary sources. For each emissions source, the BAAQMD provides conservative estimates of cancer risk and $PM_{2.5}$ concentrations. Based on information from the web-based tool, 12 BAAQMD-permitted stationary source exist within 1,000 feet of the project site.
- **Rail Screening Tools.** The BAAQMD prepared GIS tools that contains estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin. The closest rail line to the project site is operated by Bay Area Rapid Transit (BART), approximately 165 feet west of the project site.

[9] Bay Area Air Quality Management District (BAAQMD). 2018. Permitted Stationary Sources Risk and Hazards. Permitted Stationary Sources Risk and Hazards. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed January 24, 2022.

A cumulative HRA was performed that examined the cumulative impacts of the project's emissions and existing sources of TAC emissions principally within 1,000 feet of the project site. The cumulative health risk results, including health risks from the existing stationary sources and mitigated project construction, are summarized in Table 14. Cumulative health risk results shown therein are representative of the health risks to the off-site residential MIR, which would experience the greatest health impact of all identified MIRs.

Table 14: Summary of the Cumulative Health Impacts at the MIR during Construction

Source/Impact Run	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic Hazard Index	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Maximum Project MIR					
Project Construction	Diesel Construction Equipment and Vehicles	0	5.06	0.006	0.03
Existing Stationary Sources (BAAQMD Facility Number)[2]					
Mike Rose's Auto Body of Walnut Creek (Facility ID 11281)	Auto Body Coating Operation	1,245	0.00	<0.001	0.000
Mike Rose's Auto Body Inc. (Facility ID 12341)	Auto Body Coating Operation	155	0.00	0.000	0.000
E-Tech Collision (Facility ID 13578)	Auto Body Coating Operation	585	0.00	<0.001	0.000
Mt Diablo Plaza (Facility ID 17659)	Generators	1,400	0.15	<0.001	0.000
555 YVR LLC (Facility ID 19323)	Generators	960	0.42	0.000	<0.001
I&G Ygnacio III (Facility ID 19859)	Generators	1,520	0.11	0.000	<0.001
SPUS8 California, LP c/o CBRE Inc. (Facility ID 23785)	Generator, Boiler	1,385	0.83	0.001	0.001
Caliber Collision Center (Facility ID 24395)	Auto Body Coating Operation, Distillation Process	810	<0.01	<0.001	0.001
Xtra Oil Company (Facility ID 101716)	Gas Dispensing Facility	1,205	1.07	0.005	0.000
K Ygnacio Valley Service (Facility ID 109298)	Gas Dispensing Facility	830	0.46	0.002	0.000
Walnut Creek Valero (Facility ID 110512)	Gas Dispensing Facility	885	0.86	0.004	0.000
Main Street Chevron (Facility ID 112050)	Gas Dispensing Facility	1,575	0.44	0.002	0.000

Source/Impact Run	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic Hazard Index	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Roadways					
Existing Local Roadway Network		230	14.22	N/A	0.256
Rail					
Existing Rail Lines		1,200	0.27	N/A	<0.001
Freeways					
Existing Freeways		2,000	21.56	N/A	0.422
Cumulative Health Risks					
Cumulative Maximum at MIR	45.45	0.021		0.71	
BAAQMD's Cumulative Thresholds of Significance	**100**	**10**		**0.8**	
Threshold Exceedance?	**No**	**No**		**No**	

Notes:
BAAQMD = Bay Area Air Quality Management District
HARP2 = Hotspots Analysis and Reporting Program
MIR = Maximally Impacted Sensitive Receptor
ND = no data available
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
$\mu g/m^3$ = micrograms per cubic meter
[1] The MIR represents the MIR which experienced the greatest cancer risk impact among all project MIRs, an off-site residence located 130 feet to the southeast of Site C
Source: Attachment B.

As noted in Table 14, the cumulative impacts from implementation of the proposed project and existing sources of TACs would be less than the BAAQMD's cumulative thresholds of significance with the incorporation of Measures AQ-1 and AQ-2. Thus, the cumulative health risk impacts from project construction would be less than significant after mitigation.

SECTION 5: CONCLUSION AND RECOMMENDED MEASURES

5.1 - Conclusion

As previously discussed, the proposed project would result in potentially significant human health impacts at existing off-site and future on-site residences during project construction. Implementation of Measure AQ-1 would reduce the potential impacts to less than significant levels, and Measure AQ-2 would prevent alternative development conditions from occurring which may present a greater human health impact to existing and planned sensitive receptors than those identified in this HRA.

The following presents measures which have been recommended in the above analysis to ensure that impacts resulting from implementation of the proposed project would be less than significant under CEQA Guidelines.

5.2 - Recommended Measures

5.2.1 - Measure AQ-1: Tier 4 Engines During Project Construction

Prior to the issuance of any demolition, grading, or building permits (whichever occurs earliest), the Applicant and/or construction contractor for a specific individual development proposal shall provide documentation to the City, for City review and approval, which demonstrates the use of construction equipment that meets or exceeds EPA or ARB Tier 4 Final off-road emission standards for all off-road equipment with engines greater than 50 horsepower. This requirement shall be included as construction notes on all relevant construction plans and permits (e.g., grading plan, building permit) for the proposed project. The construction contractor shall maintain records concerning its efforts to comply with this requirement during construction, including equipment rental lists. Off-road equipment records maintained for purposes of this requirement shall include the engine certification (Tier rating) and may include, but are not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, horsepower, and engine serial number. The relevant Applicant and/or construction contractor shall submit the initial construction equipment documentation and records of compliance to the City of Walnut Creek.

5.2.2 - Measure AQ-2: Limited Co-Development of Sites

This mitigation measure is intended to prevent subsequent construction occurring on the same site (i.e., Sites A, B or C) within the project site once there are occupied residences on that same site, except in the case of a new HRA documenting specific performance standards will be met, as specified herein. To avoid these circumstances, prior to the issuance of certificate of occupancy for any residential units on a specific site (i.e., Sites A, B or C) within the project site, the relevant Applicant shall provide site-specific construction phasing documentation to the City that demonstrates that no construction would occur on the same subject Site (i.e., Site A, B, or C) following the issuance of certificate of occupancy for the subject residences on that same subject Site. The relevant construction phasing documentation shall be reviewed and approved by the City prior to the issuance of the first certificate of occupancy for residential uses on the same subject Site

(i.e., Sites A, B, or C). Notwithstanding anything to the contrary in the foregoing, there shall be no such construction restrictions with respect to the residences for which certificates of occupancy have been issued that are located on different Site(s).

As an alternative to the foregoing measure, if the Applicant for a specific individual development proposal for a specific Site (i.e., Sites A, B or C) seeks to phase development such that on-site residences would be occupied during construction of additional uses, then said Applicant may, in its discretion, cause to be prepared by a qualified air quality consultant an updated HRA. If said HRA documents that emissions from all construction equipment during construction that occurs on that same site (i.e., Sites A, B or C) would not result in a carcinogenic health risk to those on-site residences of more than 10 in 1 million, an increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 micrograms per cubic meter ($\mu g/m^3$), then the Applicant shall be permitted to proceed with its construction on that same Site (i.e., Sites A, B or C), and no further mitigation shall be required.

Attachment A:
CalEEMod Outputs and Supporting Calculations

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Attachment A: CalEEMod Outputs and Supporting Calculations

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Toyota Walnut Creek CalEEMod Notes

Note 1

Land uses and sizes associated with development of the proposed project are drawn from Applicant provided information provided October 1, 2021, and updated information provided in October 2022. Land uses in the model represent the following:

Operational Model

Commercial > General Office Building > 13.515 x 1,000 sqft = Proposed Office Buildings. Lot acreage was assumed to constitute one-third of the gross building square footage since the office building(s) is assumed to be 3 stories at 35 feet tall.

Residential > Apartments Mid Rise > 132 x Dwelling Unit = Proposed residential apartments. Gross building square footage utilizes model defaults. Lot acreage was assumed to constitute one-third of the gross building square footage since the apartment building(s) is assumed to be 3 stories at 35 feet tall. Assuming an average of 2.18 persons per household in Contra Costa County (see Section 3.12, Population and Housing), Scenario 2 is anticipated to generate an estimated 288 new residents.

Recreational > Hotel > 723 x Room = Proposed Hotel. Gross building square footage utilizes model defaults. Lot acreage was assumed to constitute one-fifth of the gross building square footage since the hotel is assumed to be 5 stories at 50 feet tall.

Retail > Automobile Care Center > 142.094 x 1,000 sqft = Auto Sales Center.

Industrial > User Defined Industrial > 1 User defined metric = Placeholder land use to account for the Auto Dealership HHD Fleet mix and travel distance to the Port of Richmond.

Parking > Enclosed Parking with Elevator > 1,650 x Parking Stall = Proposed parking structures being considered as part of the proposed project. Gross building square footage utilizes model default values. Lot acreage is reduced to zero as the parking garages would be located beneath proposed building footprints already considered.

Construction Models

Construction models were separated into residential and nonresidential land uses for purposes of the construction HRA. All demolition and import/export material volumes for project construction are included in the nonresidential model.

Existing Land Uses Model

Retail > Automobile Care Center > 50.407 x 1,000 sqft = Existing auto sales center uses across all sites.

Parking > Parking Lot > 277.617 x 1,000 sqft = Existing parking areas across all sites.

Note 2

Utilizing the Existing ASCM Uses Within Sites A, B, C, D, and E plan set, dated July 21, 2021, which illustrates existing buildings on the project site, an estimated 90,465 square feet of building space and 277,617 square feet of pavement is anticipated to be demolished and removed from the site during

project construction. As such, a total of 14,595 tons of demolition debris is anticipated to be hauled off-site, as calculated in the Demolition Debris Calculations sheet contained in this Appendix.

According to the Kier+Wright TWC Earthwork Draft plan set for 2087-2200 North Broadway, dated October 2021, and an analysis by ENGEO Incorporated, dated August 31, 2022, approximately 255,773 cubic yards of soil would be exported during grading activities to make room for the parking garages being considered. Of that soil export amount, approximately 1,210 cubic yards of impacted, nonhazardous soil may be present at the site, which would be eligible for disposal at a Class II waste disposal facility. The project applicant indicated that all exported soil would be transported to the Keller Canyon Landfill at 901 Bailey Road in unincorporated Contra Costa County. As this landfill is located between 11 to 13.8 miles from the proposed project site, depending on the route taken, the default CalEEMod trip length for soil off-hauling during grading activities was adjusted to be 14 miles.

Note 3

The HHD vehicle class was removed from the Automobile Care Center land use fleet mix. In response to this adjustment, the remainder of the vehicle classes in the fleet mix were adjusted to reflect their proportional make-up without the HHD vehicle class. To account for all freight activities associated with vehicle deliveries to and from the project site, the fleet mix for the User Defined Industrial land use in the model was adjusted to be 100% HHD vehicle class with an average vehicle trip distance of approximately 25 miles, the travel distance between the project site and the Port of Richmond. The trip generation associated with each land use reflects the data presented in the Transportation Analysis prepared for the proposed project. Please refer to the Fleet Mix Adjustments.

Note 4

According to the BAAQMD's Regulation 6, Rule 3, new residential developments are prohibited from installing wood-burning stoves and fireplaces. As a result, the model was adjusted to remove the inclusion of wood-burning devices.

Note 5

BAAQMD *Basic Construction Mitigation Measures Recommended For All Proposed Projects* was applied to this project, which includes watering exposed areas at minimum twice per day and limiting construction vehicle speeds to 15 miles per hour on unpaved roads.

Note 6

As the project's residential land uses would be contained in buildings no greater than 35 feet tall, it is assumed that all residential buildings proposed as part of the project would be no greater than 3 stories tall. According to the California Code of Regulations, Title 24, Part 6, Subchapter 8 – Low-Rise Residential Building – Performance and Prescriptive Compliance Approaches, Section 150.1(c)14, "[a]ll low-rise residential buildings shall have a photovoltaic (PV) system meeting the minimum qualification requirements as specified in Joint Appendix JA11, with annual electrical output equal or greater than the dwelling's annual electrical usage as determined by Equation 150.1-C:"

Equation 150.1-C Annual Photovoltaic Electrical Output

kWPV = (CFA x A)/1,000 + (NDwell x B)

Where:

kWPV = kWdc size of the PV system

CFA = conditioned floor area

NDwell = number of dwelling units

A = Adjustment factor from Table 150.1-C

B = Dwelling adjustment factor from Table 150.1-C

As the project is located in climate zone 4, the A adjustment factor mentioned above is identified as 0.586 and the B adjustment factor mentioned above is identified as 1.21. The conditioned floor area is based on the building square footage.

Therefore:

kWPV = (132,000 x 0.586)/1,000 + (132 x 1.21) = 237.07 kWPV

While this accounts for the entire project's kW PV system, it does not provide the annual production rate that would be generated by this size of system. Therefore, the total kW PV system was reduced to a per-dwelling-unit kW PV system to determine the expected annual production rate. 237.07 kW PV divided by 132 dwelling units results in an average 1.8 kW PV system per dwelling unit.

According to TheEcoExperts.com,[1] a 2 kW PV system has an average annual production rate of 1,700 kWh/year. The below equation proportionally applies the same average annual production rate to the calculated 1.8 kW system per each dwelling unit.

Therefore:

(1.8/2) * 1,700 kWh/year = 1,530 kWh/year

Therefore, the proposed project is expected to result in an average on-site electricity generation rate of 1,530 kWh per dwelling unit per year. The following equation converts this to total annual on-site electricity generation. As such, after multiplying by 132 dwelling units, the proposed project would generate an estimated 201,960 kWh annually.

Note 7

For the 2030 operational models, PG&E's 2030 CO_2 intensity factor is based on the applicants commitment to use carbon-free electricity.. Any additional electricity demand beyond that satisfied by the on-site generation system would be supplied with 100 percent carbon -free electricity sources, such as from PG&E's 100 Percent Solar Choice electricity service option or MCE's Deep Green 100 percent renewable electricity service option.

Note 8

[1] Theecoexperts.com. 2016. Solar Panel Output. Website: http://www.theecoexperts.com/solar-panel-output/. Accessed January 31, 2022.

Applicant has committed to all electric building design for residential and commercial. There will be no natural gas usage in any of the buildings.

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Non Residential Construction

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	40.55	1000sqft	0.31	40,546.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	1,650.00	Space	0.00	660,000.00	0
Hotel	723.00	Room	4.82	1,049,796.00	0
Automobile Care Center	142.09	1000sqft	3.26	142,090.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Trips and VMT - Note 2

Demolition - Note 2

Grading - Note 2

Vehicle Trips - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.88	0.00
tblEnergyUse	LightingElect	2.35	0.00
tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	7.84	0.00
tblEnergyUse	NT24E	3.22	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24E	1.32	0.00
tblEnergyUse	T24E	3.50	0.00
tblEnergyUse	T24E	5.45	0.00
tblEnergyUse	T24E	1.83	0.00
tblEnergyUse	T24NG	19.51	0.00
tblEnergyUse	T24NG	16.14	0.00

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	T24NG	39.16	0.00
tblGrading	MaterialExported	0.00	255,773.00
tblLandUse	LandUseSquareFeet	40,550.00	40,546.00
tblLandUse	LotAcreage	0.93	0.31
tblLandUse	LotAcreage	14.85	0.00
tblLandUse	LotAcreage	24.10	4.82
tblSolidWaste	SolidWasteGenerationRate	542.78	0.00
tblSolidWaste	SolidWasteGenerationRate	37.71	0.00
tblSolidWaste	SolidWasteGenerationRate	395.84	0.00
tblTripsAndVMT	HaulingTripLength	20.00	14.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	13,367,984.56	0.00
tblWater	IndoorWaterUseRate	7,207,103.48	0.00
tblWater	IndoorWaterUseRate	18,340,174.71	0.00
tblWater	OutdoorWaterUseRate	8,193,280.86	0.00
tblWater	OutdoorWaterUseRate	4,417,256.97	0.00
tblWater	OutdoorWaterUseRate	2,037,797.19	0.00

2.0 Emissions Summary

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2024	0.4760	5.2286	4.7908	0.0230	1.4145	0.1131	1.5276	0.4033	0.1063	0.5096	0.0000	2,176.2742	2,176.2742	0.1316	0.2198	2,245.0590
2025	6.6101	0.3458	0.5174	1.6000e-003	0.0873	0.0105	0.0978	0.0236	9.8300e-003	0.0335	0.0000	147.8211	147.8211	0.0139	9.1300e-003	150.8893
Maximum	**6.6101**	**5.2286**	**4.7908**	**0.0230**	**1.4145**	**0.1131**	**1.5276**	**0.4033**	**0.1063**	**0.5096**	**0.0000**	**2,176.2742**	**2,176.2742**	**0.1316**	**0.2198**	**2,245.0590**

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					
2024	0.4760	5.2286	4.7908	0.0230	1.2276	0.1131	1.3407	0.3424	0.1063	0.4487	0.0000	2,176.2738	2,176.2738	0.1316	0.2198	2,245.0586
2025	6.6101	0.3458	0.5174	1.6000e-003	0.0873	0.0105	0.0978	0.0236	9.8300e-003	0.0335	0.0000	147.8210	147.8210	0.0139	9.1300e-003	150.8893
Maximum	**6.6101**	**5.2286**	**4.7908**	**0.0230**	**1.2276**	**0.1131**	**1.3407**	**0.3424**	**0.1063**	**0.4487**	**0.0000**	**2,176.2738**	**2,176.2738**	**0.1316**	**0.2198**	**2,245.0586**

	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

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**12.44**	**0.00**	**11.50**	**14.25**	**0.00**	**11.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	2.5669	2.5669
2	**4-1-2024**	**6-30-2024**	1.0336	1.0336
3	**7-1-2024**	**9-30-2024**	1.0450	1.0450
4	**10-1-2024**	**12-31-2024**	1.0769	1.0769
5	**1-1-2025**	**3-31-2025**	6.9478	6.9478
		Highest	6.9478	6.9478

2.2 Overall Operational

Unmitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	1/1/2024	1/26/2024	5	20	
2	Site Preparation	Site Preparation	1/27/2024	2/9/2024	5	10	
3	Grading	Grading	2/10/2024	3/8/2024	5	20	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/9/2024	1/24/2025	5	230	
5	Paving	Paving	1/25/2025	2/21/2025	5	20	
6	Architectural Coating	Architectural Coating	2/22/2025	3/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,848,648; Non-Residential Outdoor: 616,216; Striped Parking Area: 39,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	1,443.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	31,972.00	10.80	7.30	14.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	777.00	310.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	155.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					0.1562	0.0000	0.1562	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.1562**	**9.6000e-003**	**0.1658**	**0.0236**	**8.9200e-003**	**0.0326**	**0.0000**	**33.9961**	**33.9961**	**9.5100e-003**	**0.0000**	**34.2338**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0703	0.0000	0.0703	0.0106	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.0703**	**9.6000e-003**	**0.0799**	**0.0106**	**8.9200e-003**	**0.0196**	**0.0000**	**33.9960**	**33.9960**	**9.5100e-003**	**0.0000**	**34.2338**

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2024

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6600e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6500e-003	5.6500e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0442**	**6.1500e-003**	**0.0504**	**0.0227**	**5.6500e-003**	**0.0284**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

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					0.0853	0.0000	0.0853	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1703	0.1476	3.0000e-004		7.2400e-003	7.2400e-003		6.6600e-003	6.6600e-003	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2747
Total	**0.0166**	**0.1703**	**0.1476**	**3.0000e-004**	**0.0853**	**7.2400e-003**	**0.0925**	**0.0364**	**6.6600e-003**	**0.0431**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2747**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0384	0.0000	0.0384	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1703	0.1476	3.0000e-004		7.2400e-003	7.2400e-003		6.6600e-003	6.6600e-003	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2746
Total	**0.0166**	**0.1703**	**0.1476**	**3.0000e-004**	**0.0384**	**7.2400e-003**	**0.0456**	**0.0164**	**6.6600e-003**	**0.0231**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2746**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.1560	1.4250	1.7137	2.8600e-003		0.0650	0.0650		0.0612	0.0612	0.0000	245.7601	245.7601	0.0581	0.0000	247.2129
Total	**0.1560**	**1.4250**	**1.7137**	**2.8600e-003**		**0.0650**	**0.0650**		**0.0612**	**0.0612**	**0.0000**	**245.7601**	**245.7601**	**0.0581**	**0.0000**	**247.2129**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1560	1.4250	1.7137	2.8600e-003		0.0650	0.0650		0.0612	0.0612	0.0000	245.7598	245.7598	0.0581	0.0000	247.2126
Total	**0.1560**	**1.4250**	**1.7137**	**2.8600e-003**		**0.0650**	**0.0650**		**0.0612**	**0.0612**	**0.0000**	**245.7598**	**245.7598**	**0.0581**	**0.0000**	**247.2126**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1122	0.1448	2.4000e-004		4.7500e-003	4.7500e-003		4.4700e-003	4.4700e-003	0.0000	20.8728	20.8728	4.9100e-003	0.0000	20.9954
Total	**0.0123**	**0.1122**	**0.1448**	**2.4000e-004**		**4.7500e-003**	**4.7500e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**20.8728**	**20.8728**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0123	0.1122	0.1448	2.4000e-004		4.7500e-003	4.7500e-003		4.4700e-003	4.4700e-003	0.0000	20.8727	20.8727	4.9100e-003	0.0000	20.9954
Total	**0.0123**	**0.1122**	**0.1448**	**2.4000e-004**		**4.7500e-003**	**4.7500e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**20.8727**	**20.8727**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
General Office Building	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Hotel	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
User Defined Industrial	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

NaturalGas Unmitigated	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Appendix C																

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Unmitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Residential Construction

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	132.00	Dwelling Unit	1.01	132,000.00	378

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Construction activity start dates fixed to occur concurrently with nonresidential development.

Vehicle Trips - Construction Only

Fleet Mix -

Woodstoves - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	1/2/2024	1/30/2024
tblConstructionPhase	PhaseEndDate	1/8/2024	2/15/2024
tblConstructionPhase	PhaseEndDate	10/14/2024	12/13/2024
tblConstructionPhase	PhaseEndDate	10/28/2024	2/7/2025
tblConstructionPhase	PhaseEndDate	11/11/2024	3/7/2025
tblConstructionPhase	PhaseStartDate	1/1/2024	1/27/2024
tblConstructionPhase	PhaseStartDate	1/3/2024	2/10/2024
tblConstructionPhase	PhaseStartDate	1/9/2024	3/9/2024
tblConstructionPhase	PhaseStartDate	10/15/2024	1/25/2025
tblConstructionPhase	PhaseStartDate	10/29/2024	2/22/2025
tblConsumerProducts	ROG_EF	2.14E-05	1E-20
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	1E-20
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	1E-20
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	70.89	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	LotAcreage	3.47	1.01
tblSolidWaste	SolidWasteGenerationRate	60.72	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	8,600,331.38	0.00
tblWater	OutdoorWaterUseRate	5,421,948.05	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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					
2024	0.1705	1.2235	1.4947	3.1700e-003	0.1052	0.0474	0.1526	0.0326	0.0457	0.0783	0.0000	271.2692	271.2692	0.0341	5.5400e-003	273.7716
2025	0.9333	0.0326	0.0562	9.0000e-005	1.2700e-003	1.5000e-003	2.7600e-003	3.4000e-004	1.4000e-003	1.7400e-003	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1422
Maximum	**0.9333**	**1.2235**	**1.4947**	**3.1700e-003**	**0.1052**	**0.0474**	**0.1526**	**0.0326**	**0.0457**	**0.0783**	**0.0000**	**271.2692**	**271.2692**	**0.0341**	**5.5400e-003**	**273.7716**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2024	0.1705	1.2235	1.4947	3.1700e-003	0.0940	0.0474	0.1414	0.0272	0.0457	0.0729	0.0000	271.2690	271.2690	0.0341	5.5400e-003	273.7714
2025	0.9333	0.0326	0.0562	9.0000e-005	1.2700e-003	1.5000e-003	2.7600e-003	3.4000e-004	1.4000e-003	1.7400e-003	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1421
Maximum	**0.9333**	**1.2235**	**1.4947**	**3.1700e-003**	**0.0940**	**0.0474**	**0.1414**	**0.0272**	**0.0457**	**0.0729**	**0.0000**	**271.2690**	**271.2690**	**0.0341**	**5.5400e-003**	**273.7714**

	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**	**10.55**	**0.00**	**7.23**	**16.42**	**0.00**	**6.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	0.1624	0.1624
2	**4-1-2024**	**6-30-2024**	0.4385	0.4385
3	**7-1-2024**	**9-30-2024**	0.4433	0.4433
4	**10-1-2024**	**12-31-2024**	0.3582	0.3582
5	**1-1-2025**	**3-31-2025**	0.9659	0.9659
		Highest	0.9659	0.9659

2.2 Overall Operational

Unmitigated Operational

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	Site Preparation	Site Preparation	1/27/2024	1/30/2024	5	2	
2	Grading	Grading	2/10/2024	2/15/2024	5	4	
3	Building Construction	Building Construction	3/9/2024	12/13/2024	5	200	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	1/25/2025	2/7/2025	5	10	
5	Architectural Coating	Architectural Coating	2/22/2025	3/7/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 267,300; Residential Outdoor: 89,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	95.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.1100e-003**	**0.0118**	**6.6300e-003**	**2.0000e-005**	**6.2700e-003**	**4.8000e-004**	**6.7500e-003**	**3.0000e-003**	**4.4000e-004**	**3.4400e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

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					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.1100e-003**	**0.0118**	**6.6300e-003**	**2.0000e-005**	**2.8200e-003**	**4.8000e-004**	**3.3000e-003**	**1.3500e-003**	**4.4000e-004**	**1.7900e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

3.3 Grading - 2024

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**2.6000e-003**	**0.0276**	**0.0174**	**4.0000e-005**	**0.0142**	**1.1400e-003**	**0.0153**	**6.8500e-003**	**1.0500e-003**	**7.9000e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**2.6000e-003**	**0.0276**	**0.0174**	**4.0000e-005**	**6.3700e-003**	**1.1400e-003**	**7.5100e-003**	**3.0800e-003**	**1.0500e-003**	**4.1300e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

3.4 Building Construction - 2024

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	0.1420	1.1064	1.2517	2.2100e-003		0.0451	0.0451		0.0435	0.0435	0.0000	181.6113	181.6113	0.0302	0.0000	182.3674
Total	**0.1420**	**1.1064**	**1.2517**	**2.2100e-003**		**0.0451**	**0.0451**		**0.0435**	**0.0435**	**0.0000**	**181.6113**	**181.6113**	**0.0302**	**0.0000**	**182.3674**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

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	0.1420	1.1064	1.2517	2.2100e-003		0.0451	0.0451		0.0435	0.0435	0.0000	181.6110	181.6110	0.0302	0.0000	182.3672
Total	**0.1420**	**1.1064**	**1.2517**	**2.2100e-003**		**0.0451**	**0.0451**		**0.0435**	**0.0435**	**0.0000**	**181.6110**	**181.6110**	**0.0302**	**0.0000**	**182.3672**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

3.5 Paving - 2025

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

3.6 Architectural Coating - 2025

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9301**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9301**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Unmitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Scenario 2 Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Non Residential Construction

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	40.55	1000sqft	0.31	40,546.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0
Enclosed Parking with Elevator	1,650.00	Space	0.00	660,000.00	0
Hotel	723.00	Room	4.82	1,049,796.00	0
Automobile Care Center	142.09	1000sqft	3.26	142,090.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Trips and VMT - Note 2

Demolition - Note 2

Grading - Note 2

Vehicle Trips - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5; Tier 4 Final Engines for Off-road Equip > 50 bhp

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.88	0.00
tblEnergyUse	LightingElect	2.35	0.00
tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	7.84	0.00
tblEnergyUse	NT24E	3.22	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24E	1.32	0.00
tblEnergyUse	T24E	3.50	0.00
tblEnergyUse	T24E	5.45	0.00
tblEnergyUse	T24E	1.83	0.00
tblEnergyUse	T24NG	19.51	0.00
tblEnergyUse	T24NG	16.14	0.00
tblEnergyUse	T24NG	39.16	0.00
tblGrading	MaterialExported	0.00	255,773.00
tblLandUse	LandUseSquareFeet	40,550.00	40,546.00
tblLandUse	LotAcreage	0.93	0.31
tblLandUse	LotAcreage	14.85	0.00
tblLandUse	LotAcreage	24.10	4.82
tblSolidWaste	SolidWasteGenerationRate	542.78	0.00
tblSolidWaste	SolidWasteGenerationRate	37.71	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblSolidWaste	SolidWasteGenerationRate	395.84	0.00
tblTripsAndVMT	HaulingTripLength	20.00	14.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	13,367,984.56	0.00
tblWater	IndoorWaterUseRate	7,207,103.48	0.00
tblWater	IndoorWaterUseRate	18,340,174.71	0.00
tblWater	OutdoorWaterUseRate	8,193,280.86	0.00
tblWater	OutdoorWaterUseRate	4,417,256.97	0.00
tblWater	OutdoorWaterUseRate	2,037,797.19	0.00

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					
2024	0.4760	5.2286	4.7908	0.0230	1.4145	0.1131	1.5276	0.4033	0.1063	0.5096	0.0000	2,176.2742	2,176.2742	0.1316	0.2198	2,245.0590

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2025	6.6101	0.3458	0.5174	1.6000e-003	0.0873	0.0105	0.0978	0.0236	9.8300e-003	0.0335	0.0000	147.8211	147.8211	0.0139	9.1300e-003	150.8893
Maximum	**6.6101**	**5.2286**	**4.7908**	**0.0230**	**1.4145**	**0.1131**	**1.5276**	**0.4033**	**0.1063**	**0.5096**	**0.0000**	**2,176.2742**	**2,176.2742**	**0.1316**	**0.2198**	**2,245.0590**

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					
2024	0.3359	3.6327	5.0219	0.0230	1.2276	0.0366	1.2642	0.3424	0.0354	0.3778	0.0000	2,176.2738	2,176.2738	0.1316	0.2198	2,245.0586
2025	6.5960	0.1831	0.5584	1.6000e-003	0.0873	2.6500e-003	0.0900	0.0236	2.5900e-003	0.0262	0.0000	147.8210	147.8210	0.0139	9.1300e-003	150.8893
Maximum	**6.5960**	**3.6327**	**5.0219**	**0.0230**	**1.2276**	**0.0366**	**1.2642**	**0.3424**	**0.0354**	**0.3778**	**0.0000**	**2,176.2738**	**2,176.2738**	**0.1316**	**0.2198**	**2,245.0586**

	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

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**2.18**	**31.55**	**-5.12**	**0.00**	**12.44**	**68.27**	**16.69**	**14.25**	**67.31**	**25.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	2.5669	1.9962
2	**4-1-2024**	**6-30-2024**	1.0336	0.6506
3	**7-1-2024**	**9-30-2024**	1.0450	0.6578
4	**10-1-2024**	**12-31-2024**	1.0769	0.6897
5	**1-1-2025**	**3-31-2025**	6.9478	6.7756
		Highest	6.9478	6.7756

2.2 Overall Operational

Unmitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	1/1/2024	1/26/2024	5	20	
2	Site Preparation	Site Preparation	1/27/2024	2/9/2024	5	10	
3	Grading	Grading	2/10/2024	3/8/2024	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/9/2024	1/24/2025	5	230	
5	Paving	Paving	1/25/2025	2/21/2025	5	20	
6	Architectural Coating	Architectural Coating	2/22/2025	3/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,848,648; Non-Residential Outdoor: 616,216; Striped Parking Area: 39,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	1,443.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	31,972.00	10.80	7.30	14.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	777.00	310.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	155.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					0.1562	0.0000	0.1562	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.1562**	**9.6000e-003**	**0.1658**	**0.0236**	**8.9200e-003**	**0.0326**	**0.0000**	**33.9961**	**33.9961**	**9.5100e-003**	**0.0000**	**34.2338**

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0703	0.0000	0.0703	0.0106	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1300e-003	0.0415	0.2307	3.9000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	**7.1300e-003**	**0.0415**	**0.2307**	**3.9000e-004**	**0.0703**	**1.6400e-003**	**0.0719**	**0.0106**	**1.6400e-003**	**0.0123**	**0.0000**	**33.9960**	**33.9960**	**9.5100e-003**	**0.0000**	**34.2338**

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	1.4900e-003	0.0973	0.0229	4.3000e-004	0.0122	8.0000e-004	0.0130	3.3700e-003	7.6000e-004	4.1300e-003	0.0000	42.3504	42.3504	1.3900e-003	6.7100e-003	44.3859
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**1.8600e-003**	**0.0976**	**0.0260**	**4.4000e-004**	**0.0134**	**8.1000e-004**	**0.0142**	**3.6900e-003**	**7.7000e-004**	**4.4500e-003**	**0.0000**	**43.2455**	**43.2455**	**1.4200e-003**	**6.7300e-003**	**45.2889**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2024

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6600e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**2.3300e-003**	**0.0101**	**0.1043**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	2.2000e-004	1.4000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5371	0.5371	2.0000e-005	1.0000e-005	0.5418
Total	**2.2000e-004**	**1.4000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5371**	**0.5371**	**2.0000e-005**	**1.0000e-005**	**0.5418**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

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					0.0853	0.0000	0.0853	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.1703	0.1476	3.0000e-004		7.2400e-003	7.2400e-003		6.6600e-003	6.6600e-003	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2747
Total	**0.0166**	**0.1703**	**0.1476**	**3.0000e-004**	**0.0853**	**7.2400e-003**	**0.0925**	**0.0364**	**6.6600e-003**	**0.0431**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2747**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					0.0384	0.0000	0.0384	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0157	0.1775	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0639	26.0639	8.4300e-003	0.0000	26.2746
Total	**3.6300e-003**	**0.0157**	**0.1775**	**3.0000e-004**	**0.0384**	**4.8000e-004**	**0.0389**	**0.0164**	**4.8000e-004**	**0.0169**	**0.0000**	**26.0639**	**26.0639**	**8.4300e-003**	**0.0000**	**26.2746**

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	0.0276	1.5933	0.4219	6.7500e-003	0.1899	0.0124	0.2024	0.0522	0.0119	0.0641	0.0000	668.1557	668.1557	0.0218	0.1059	700.2652
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	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**0.0280**	**1.5936**	**0.4250**	**6.7600e-003**	**0.1911**	**0.0125**	**0.2036**	**0.0526**	**0.0119**	**0.0645**	**0.0000**	**669.0509**	**669.0509**	**0.0218**	**0.1059**	**701.1682**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	0.1560	1.4250	1.7137	2.8600e-003		0.0650	0.0650		0.0612	0.0612	0.0000	245.7601	245.7601	0.0581	0.0000	247.2129
Total	**0.1560**	**1.4250**	**1.7137**	**2.8600e-003**		**0.0650**	**0.0650**		**0.0612**	**0.0612**	**0.0000**	**245.7601**	**245.7601**	**0.0581**	**0.0000**	**247.2129**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0551	0.2768	1.8685	2.8600e-003		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003	0.0000	245.7598	245.7598	0.0581	0.0000	247.2126
Total	**0.0551**	**0.2768**	**1.8685**	**2.8600e-003**		**9.0400e-003**	**9.0400e-003**		**9.0400e-003**	**9.0400e-003**	**0.0000**	**245.7598**	**245.7598**	**0.0581**	**0.0000**	**247.2126**

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	0.0366	1.4656	0.4676	6.6800e-003	0.2162	8.7100e-003	0.2250	0.0625	8.3300e-003	0.0709	0.0000	649.3955	649.3955	0.0131	0.0937	677.6461
Worker	0.2011	0.1317	1.7203	5.3600e-003	0.6532	3.1300e-003	0.6564	0.1737	2.8800e-003	0.1766	0.0000	491.4967	491.4967	0.0138	0.0134	495.8288
Total	**0.2377**	**1.5973**	**2.1879**	**0.0120**	**0.8695**	**0.0118**	**0.8813**	**0.2363**	**0.0112**	**0.2475**	**0.0000**	**1,140.8922**	**1,140.8922**	**0.0269**	**0.1071**	**1,173.4749**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1122	0.1448	2.4000e-004		4.7500e-003	4.7500e-003		4.4700e-003	4.4700e-003	0.0000	20.8728	20.8728	4.9100e-003	0.0000	20.9954
Total	**0.0123**	**0.1122**	**0.1448**	**2.4000e-004**		**4.7500e-003**	**4.7500e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**20.8728**	**20.8728**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.5300e-003	0.0232	0.1585	2.4000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	20.8727	20.8727	4.9100e-003	0.0000	20.9954
Total	**4.5300e-003**	**0.0232**	**0.1585**	**2.4000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**20.8727**	**20.8727**	**4.9100e-003**	**0.0000**	**20.9954**

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	3.0200e-003	0.1239	0.0389	5.6000e-004	0.0184	7.4000e-004	0.0191	5.3100e-003	7.1000e-004	6.0100e-003	0.0000	54.2556	54.2556	1.0900e-003	7.8000e-003	56.6084
Worker	0.0160	0.0101	0.1367	4.4000e-004	0.0555	2.5000e-004	0.0557	0.0148	2.3000e-004	0.0150	0.0000	40.3187	40.3187	1.0600e-003	1.0600e-003	40.6626
Total	**0.0190**	**0.1339**	**0.1756**	**1.0000e-003**	**0.0738**	**9.9000e-004**	**0.0748**	**0.0201**	**9.4000e-004**	**0.0210**	**0.0000**	**94.5743**	**94.5743**	**2.1500e-003**	**8.8600e-003**	**97.2710**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8648	0.8648	2.0000e-005	2.0000e-005	0.8722
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8648**	**0.8648**	**2.0000e-005**	**2.0000e-005**	**0.8722**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	6.5640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**6.5657**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	3.5500e-003	2.2300e-003	0.0303	1.0000e-004	0.0123	6.0000e-005	0.0124	3.2700e-003	5.0000e-005	3.3200e-003	0.0000	8.9367	8.9367	2.4000e-004	2.4000e-004	9.0129
Total	**3.5500e-003**	**2.2300e-003**	**0.0303**	**1.0000e-004**	**0.0123**	**6.0000e-005**	**0.0124**	**3.2700e-003**	**5.0000e-005**	**3.3200e-003**	**0.0000**	**8.9367**	**8.9367**	**2.4000e-004**	**2.4000e-004**	**9.0129**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Enclosed Parking with Elevator	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
General Office Building	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
Hotel	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271
User Defined Industrial	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	0	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
Enclosed Parking with Elevator	0	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
General Office Building	0	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
Hotel	0	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
User Defined Industrial	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Appendix C																

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Unmitigated	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1600e-003	2.1000e-004	0.0234	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0457	0.0457	1.2000e-004	0.0000	0.0487
Total	**2.1600e-003**	**2.1000e-004**	**0.0234**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0457**	**0.0457**	**1.2000e-004**	**0.0000**	**0.0487**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0 / 0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0		0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	0		0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0		0.0000	0.0000	0.0000	0.0000
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Hotel	0		0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

Scenario 2 Non Residential Construction - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Scenario 2 Residential Construction - Mitigated

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	132.00	Dwelling Unit	1.01	132,000.00	378

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Construction activity start dates fixed to occur concurrently with nonresidential development.

Vehicle Trips - Construction Only

Woodstoves - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Energy Use - Construction Only

Water And Wastewater - Construction Only

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - Note 5; Tier 4 Final Engines for Off-road Equip > 50 bhp

Fleet Mix -

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	70.89	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblLandUse	LotAcreage	3.47	1.01
tblSolidWaste	SolidWasteGenerationRate	60.72	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	8,600,331.38	0.00
tblWater	OutdoorWaterUseRate	5,421,948.05	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

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					
2024	0.1705	1.2235	1.4947	3.1700e-003	0.1052	0.0474	0.1526	0.0326	0.0457	0.0783	0.0000	271.2692	271.2692	0.0341	5.5400e-003	273.7716
2025	0.9333	0.0326	0.0562	9.0000e-005	1.2700e-003	1.5000e-003	2.7600e-003	3.4000e-004	1.4000e-003	1.7400e-003	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1422

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Maximum	**0.9333**	**1.2235**	**1.4947**	**3.1700e-003**	**0.1052**	**0.0474**	**0.1526**	**0.0326**	**0.0457**	**0.0783**	**0.0000**	**271.2692**	**271.2692**	**0.0341**	**5.5400e-003**	**273.7716**

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					
2024	0.1125	0.5650	1.6119	3.1700e-003	0.0940	0.0172	0.1112	0.0272	0.0172	0.0444	0.0000	271.2690	271.2690	0.0341	5.5400e-003	273.7714
2025	0.9307	5.7200e-003	0.0627	9.0000e-005	1.2700e-003	1.9000e-004	1.4500e-003	3.4000e-004	1.9000e-004	5.2000e-004	0.0000	8.0859	8.0859	1.9600e-003	2.0000e-005	8.1421
Maximum	**0.9307**	**0.5650**	**1.6119**	**3.1700e-003**	**0.0940**	**0.0172**	**0.1112**	**0.0272**	**0.0172**	**0.0444**	**0.0000**	**271.2690**	**271.2690**	**0.0341**	**5.5400e-003**	**273.7714**

	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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	**5.49**	**54.56**	**-7.98**	**0.00**	**10.55**	**64.41**	**27.50**	**16.42**	**63.09**	**43.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	0.1624	0.0603
2	**4-1-2024**	**6-30-2024**	0.4385	0.2184
3	**7-1-2024**	**9-30-2024**	0.4433	0.2208
4	**10-1-2024**	**12-31-2024**	0.3582	0.1792
5	**1-1-2025**	**3-31-2025**	0.9659	0.9365
		Highest	0.9659	0.9365

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Operational

	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					
Area	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	Site Preparation	Site Preparation	1/27/2024	1/30/2024	5	2	
2	Grading	Grading	2/10/2024	2/15/2024	5	4	
3	Building Construction	Building Construction	3/9/2024	12/13/2024	5	200	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	1/25/2025	2/7/2025	5	10	
5	Architectural Coating	Architectural Coating	2/22/2025	3/7/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 267,300; Residential Outdoor: 89,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	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	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	95.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	0.0118	6.6300e-003	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**1.1100e-003**	**0.0118**	**6.6300e-003**	**2.0000e-005**	**6.2700e-003**	**4.8000e-004**	**6.7500e-003**	**3.0000e-003**	**4.4000e-004**	**3.4400e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

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					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	9.1000e-004	8.6700e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5113	1.5113	4.9000e-004	0.0000	1.5235
Total	**2.1000e-004**	**9.1000e-004**	**8.6700e-003**	**2.0000e-005**	**2.8200e-003**	**3.0000e-005**	**2.8500e-003**	**1.3500e-003**	**3.0000e-005**	**1.3800e-003**	**0.0000**	**1.5113**	**1.5113**	**4.9000e-004**	**0.0000**	**1.5235**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0477	0.0477	0.0000	0.0000	0.0482
Total	**2.0000e-005**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0477**	**0.0477**	**0.0000**	**0.0000**	**0.0482**

3.3 Grading - 2024

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0276	0.0174	4.0000e-005		1.1400e-003	1.1400e-003		1.0500e-003	1.0500e-003	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**2.6000e-003**	**0.0276**	**0.0174**	**4.0000e-005**	**0.0142**	**1.1400e-003**	**0.0153**	**6.8500e-003**	**1.0500e-003**	**7.9000e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6207	3.6207	1.1700e-003	0.0000	3.6500
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6207**	**3.6207**	**1.1700e-003**	**0.0000**	**3.6500**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	5.0000e-005	3.0000e-005	4.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1194	0.1194	0.0000	0.0000	0.1204
Total	**5.0000e-005**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1194**	**0.1194**	**0.0000**	**0.0000**	**0.1204**

3.4 Building Construction - 2024

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	0.1420	1.1064	1.2517	2.2100e-003		0.0451	0.0451		0.0435	0.0435	0.0000	181.6113	181.6113	0.0302	0.0000	182.3674
Total	**0.1420**	**1.1064**	**1.2517**	**2.2100e-003**		**0.0451**	**0.0451**		**0.0435**	**0.0435**	**0.0000**	**181.6113**	**181.6113**	**0.0302**	**0.0000**	**182.3674**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

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	0.0869	0.4842	1.3625	2.2100e-003		0.0164	0.0164		0.0164	0.0164	0.0000	181.6110	181.6110	0.0302	0.0000	182.3672
Total	**0.0869**	**0.4842**	**1.3625**	**2.2100e-003**		**0.0164**	**0.0164**		**0.0164**	**0.0164**	**0.0000**	**181.6110**	**181.6110**	**0.0302**	**0.0000**	**182.3672**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5600e-003	0.0624	0.0199	2.8000e-004	9.2100e-003	3.7000e-004	9.5800e-003	2.6600e-003	3.5000e-004	3.0200e-003	0.0000	27.6675	27.6675	5.6000e-004	3.9900e-003	28.8711
Worker	0.0232	0.0152	0.1984	6.2000e-004	0.0754	3.6000e-004	0.0757	0.0200	3.3000e-004	0.0204	0.0000	56.6914	56.6914	1.5900e-003	1.5400e-003	57.1911
Total	**0.0248**	**0.0776**	**0.2184**	**9.0000e-004**	**0.0846**	**7.3000e-004**	**0.0853**	**0.0227**	**6.8000e-004**	**0.0234**	**0.0000**	**84.3589**	**84.3589**	**2.1500e-003**	**5.5300e-003**	**86.0622**

3.5 Paving - 2025

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	2.8700e-003	0.0266	0.0440	7.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8700e-003**	**0.0266**	**0.0440**	**7.0000e-005**		**1.2300e-003**	**1.2300e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

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	1.0200e-003	4.8400e-003	0.0504	7.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	5.8868	5.8868	1.8700e-003	0.0000	5.9334
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0200e-003**	**4.8400e-003**	**0.0504**	**7.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**5.8868**	**5.8868**	**1.8700e-003**	**0.0000**	**5.9334**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5000e-004	9.0000e-005	1.2700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3748	0.3748	1.0000e-005	1.0000e-005	0.3780
Total	**1.5000e-004**	**9.0000e-005**	**1.2700e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.3748**	**0.3748**	**1.0000e-005**	**1.0000e-005**	**0.3780**

3.6 Architectural Coating - 2025

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9301**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

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	0.9292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.9294**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.2000e-004	1.4000e-004	1.8600e-003	1.0000e-005	7.5000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5477	0.5477	1.0000e-005	1.0000e-005	0.5524
Total	**2.2000e-004**	**1.4000e-004**	**1.8600e-003**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**7.6000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5477**	**0.5477**	**1.0000e-005**	**1.0000e-005**	**0.5524**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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					
Mitigated	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.565095	0.055953	0.178712	0.125673	0.023431	0.005517	0.007231	0.007159	0.000545	0.000331	0.025692	0.001390	0.003271

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					
Mitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Unmitigated	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393

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6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0294	0.0113	0.9792	5.0000e-005		5.4300e-003	5.4300e-003		5.4300e-003	5.4300e-003	0.0000	1.6010	1.6010	1.5300e-003	0.0000	1.6393
Total	**0.0294**	**0.0113**	**0.9792**	**5.0000e-005**		**5.4300e-003**	**5.4300e-003**		**5.4300e-003**	**5.4300e-003**	**0.0000**	**1.6010**	**1.6010**	**1.5300e-003**	**0.0000**	**1.6393**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Scenario 2 Residential Construction - Mitigated - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment B:
Health Risk Assessment Supporting Information

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Attachment B: Health Risk Assessment Supporting Information

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Construction HRA Soil Export and Demolition Debris Assignments

Project Site	Soil Export[1] (Cubic Yards)	Soil Export (Proportion)	Off-Site Grading Emissions[2] (Tons)	Demo Debris Off-Haul[3] (Tons)	Demo Debris Off-Haul (Proportion)	Off-Site Demolition Emissions[2] (Tons)
Site A	199,248	77.90%	0.00927	7,026	48.14%	0.00037
Site B	39,835	15.57%	0.00185	2,540	17.40%	0.00013
Site C	16,690	6.53%	0.00078	1,160	7.95%	0.00006
Site D	-	0.00%	-	2,448	16.77%	0.00013
Site E	-	0.00%	-	1,421	9.74%	0.00007
Totals	**255,773**	**100.00%**	**0.0119**	**14,595**	**100.00%**	**7.6000e-004**

Residential Scenario	Site Area (Acres)	Off-Site Soil Hauling Emissions (Tons)	Demo Debris Hauling Emissions (Tons)	Total Off-Site Hauling Emissions (Tons)
Res. on Site A	4.09	0.00263	0.00039	0.00302
Res. on Site B	1.40	0.01005	0.00063	0.01067
Res. on Site C	0.70	0.01112	0.00070	0.01182

Notes/Sources:

[1] Kier+Wright. 2021. TWC Earthwork Draft 2087-2200 North Broadway. October.
Engeo. 2022. Considerations for Construction-Related Greenhouse Gas Emissions Generated During Transport of Contaminated Soil From Earthwork Activities. August 31.

[2] CalEEMod Modeling Outputs; Appendix A.

[3] 2021. Existing ASCM Uses Within Sites A, B, C, D, and E. July 21, 2021.

Scenario 2 - Unmitigated Emissions - Construction HRA
($PM_{2.5}$ Exhaust Emissions in lbs)

	site acres	4.09	1.4	0.7	1.42	0.82
Commercial (Non-Residential) Build Distribution						
Residential Development is on	**Residential Build %**	**% on A**	**% on B**	**% on C**	**% on D**	**% on E**
Site A	100% on A	0%	32%	16%	33%	19%
Site B	100% on B	58%	0%	10%	20%	12%
Site C	100% on C	53%	18%	0%	18%	11%

Residential Development on	**% Debris Haul Res Construction**	**% Soil Haul Res Construction**	**% Debris Haul Non-Res Construction**	**% Soil Haul during Non-Res Construction**
A	48%	77.90%	52%	22.10%
B	17%	15.57%	83%	84.43%
C	8%	6.53%	92%	93.47%

		Construction Area Breakouts				Road DPM	Construction Area DPM				
Detail Section	**Scenario - Residential Build first**	**Construction Areas**	**Debris Export**	**Soil Haul**	**Vendor Delivery**	Roadway*	**Site A**	**Site B**	**Site C**	**Site D**	**Site E**
2.1	Scenario 2A.1 (year 1)= 3rd trimester to 1 year	A	0.07	2.65	0.37	3.09	92.78				
2.2	Scenario 2.A.2 (year 2)	B C D E	0.08	0.75	6.66	7.49	-	58.88	29.44	59.73	34.49
2			**0.15**	**3.40**	**7.03**	**10.58**	**92.78**	**58.88**	**29.44**	**59.73**	**34.49**

Vendor and Soil/Debris Hauling Emissions only include 2 mile of roadway network inside 1000 ft radius

Emissions Scenario - Residential Build-out occurs first - such that residential receptors on-site exposed to subsequent Commerical Buildout (Worst-Case Exposure)

		Construction Area Breakouts				Road DPM	Construction Area DPM				
Detail Section	**Scenario - Residential Build first**	**Construction Areas**	**Debris Export**	**Soil Haul**	**Vendor Delivery**	Roadway*		**Site B**	**Site C**	**Site D**	**Site E**
3.1	Scenario 2B.1 (year 1) = 3rd trimester to 1 year	Site B	0.03	0.53	0.37	0.93	-	92.78			
3.2	Scenario 2B.2 (year 2)	A and C,D,E	0.13	2.87	6.66	9.65	106.20	-	18.18	36.87	21.29
3			**0.15**	**3.40**	**7.03**	**10.58**	**106.20**	**92.78**	**18.18**	**36.87**	**21.29**

Vendor and Soil/Debris Hauling Emissions only include 2 mile of roadway network inside 1000 ft radius

Emissions Scenario - Residential Build-out occurs first - such that residential receptors on-site exposed to subsequent Commerical Buildout (Worst-Case Exposure)

		Construction Area Breakouts				Road DPM	Construction Area DPM				
Detail Section	**Scenario - Residential Build first**	**Construction Areas**	**Debris Export**	**Soil Haul**	**Vendor Delivery**	Roadway*	**Site A**	**Site B**	**Site C**	**Site D**	**Site E**
4.1	Scenario 2C.1 (year 1) = 3rd trimester to 1 year	Site C	0.01	0.22	0.37	0.61			92.78		
4.2	Scenario 2C.1 (year 2)	A,B and D,E	0.14	3.18	6.66	9.98	96.58	33.06	-	33.53	19.36
4			**0.15**	**3.40**	**7.03**	**10.58**	**96.58**	**33.06**	**92.78**	**33.53**	**19.36**

Vendor and Soil/Debris Hauling Emissions only include 2 mile of roadway network inside 1000 ft radius

Emissions Scenario - Residential Build-out occurs first - such that residential receptors on-site exposed to subsequent Commerical Buildout (Worst-Case Exposure)

UNMITIGATED Residential Construction Emissions (tons) (as taken from CalEEMod)

	$PM_{2.5}$ tons (Exhaust)		$PM_{2.5}$ lbs (Exhaust)	
Construction Activity	On-Site Const Eqpt	Offsite (Vendor/worker)	On-Site Const Eqpt	Offsite (Vendor)
Site Preparation	4.40E-04	0.00	0.88	0.00
Grading	1.05E-03	0	2.10	0.00
Building Construction	0.04	6.80E-04	87.00	1.36
Paving	0.00	0	2.28	0.00
Architectural Coating	0.00		0.52	0.00
	4.64E-02	0.00068	92.78	1.36

Vendor Haul Distance = 7.3 miles

UNMITIGATED Non-Residential (Commercial) Construction Emissions (tons) (as taken from CalEEMod)						
	$PM_{2.5}$(Exhaust) tons			$PM_{2.5}$(Exhaust) lbs		
Construction Activity	On-Site Const Eqpt	Offsite (Vendor/worker)	Offsite (Haul)	On-Site Const Eqpt	Offsite (Vendor/worker)	Offsite HHDT Haul
Demolition	8.92E-03	0.00001	7.60E-04	17.8	0.0	1.5
Site Preparation	5.65E-03	0	0	11.3	0.0	0.0
Grading	6.66E-03	0.00001	0.01190	13.3	0.0	23.8
Building Construction	6.57E-02	1.22E-02	0	131.3	24.3	0.0
Paving	3.85E-03	0.00001	0	7.7	0.0	0.0
Architectural Coating	5.20E-04	0.00005	0	1.0	0.1	0.0
Totals	0.091	0.01223	1.27E-02	182.5	24.5	25.3

Demolition Haul Distance in CalEEMod	20	miles
Soil Haul Distance in CalEEMod	14	miles
Vendor Delivery Distance in CalEEMod	7.3	miles

Project Site	Soil Export[1] (Cubic Yards)	Soil Export (Proportion)	Demo Debris Off-Haul[3] (Tons)	Demo Debris Off-Haul (Proportion)
Site A	199,248	77.9%	7,026	48.1%
Site B	39,835	15.6%	2,540	17.4%
Site C	16,690	6.5%	1,160	7.9%
Site D	-	0.0%	2,448	16.8%
Site E	-	0.0%	1,421	9.7%
Totals	**255,773**	**100%**	**14,595**	**100%**

Scenario 2 - Mitigated Emissions - Construction HRA
($PM_{2.5}$ Exhaust Emissions in lbs)

	site acres	4.09	1.4	0.7	1.42	0.82
	Commercial (Non-Residential) Build Distribution					
Residential Development is on	**Residential Build %**	**% on A**	**% on B**	**% on C**	**% on D**	**% on E**
Site A	100% on A	0%	32%	16%	33%	19%
Site B	100% on B	58%	0%	10%	20%	12%
Site C	100% on C	53%	18%	0%	18%	11%

Residential Development on	**% Debris Haul during Res Construction**	**% Soil Haul during Res Construction**	**% Debris Haul during NonRes Construction**	**% Soil Haul during Non-Res Construction**
A	48.1%	77.9%	51.9%	22.1%
B	17.4%	15.6%	82.6%	84.4%
C	7.9%	6.5%	92.1%	93.5%

	Construction Area Breakouts					**Road DPM**	**Construction Area DPM**				
Detail Section	**Scenario - Residential Build first**	**Construction Areas**	**Debris Export**	**Soil Haul**	**Vendor Delivery**	Roadway*	**Site A**	**Site B**	**Site C**	**Site D**	**Site E**
NA	Scenario 2A.1 (year 1)= 3rd trimester to 1 year	A	0.07	2.65	0.37	3.09	33.84				
NA	Scenario 2.A.2 (year 2)	B C D E	0.08	0.75	6.66	7.49	0.00	8.43	4.22	8.55	4.94
NA	Scenario 2A		**0.15**	**3.40**	**7.03**	**10.6**	**33.84**	**8.43**	**4.22**	**8.55**	**4.94**

Vendor and Soil/Debris Hauling Emissions only include 2 mile of roadway network inside 1000 ft radius
Emissions Scenario - Residential Build-out occurs first - such that residential receptors on-site exposed to subsequent Commerical Buildout (Worst-Case Exposure)

	Construction Area Breakouts					**Road DPM**	**Construction Area DPM**				
Detail Section	**Scenario - Residential Build first**	**Construction Areas**	**Debris Export**	**Soil Haul**	**Vendor Delivery**	Roadway*	**Site A**	**Site B**	**Site C**	**Site D**	**Site E**
NA	Scenario 2B.1 (year 1) = 3rd trimester to 1 year	Site B	0.03	0.53	0.37	0.93		33.84			
NA	Scenario 2B.2 (year 2)		0.13	2.87	6.66	9.65	15.21	0.00	2.60	5.28	3.05
NA	Scenario 2B		**0.15**	**3.40**	**7.03**	**10.6**	**15.21**	**33.84**	**2.60**	**5.28**	**3.05**

Vendor and Soil/Debris Hauling Emissions only include 2 mile of roadway network inside 1000 ft radius
Emissions Scenario - Residential Build-out occurs first - such that residential receptors on-site exposed to subsequent Commerical Buildout (Worst-Case Exposure)

	Construction Area Breakouts					**Road DPM**	**Construction Area DPM**				
Detail Section	**Scenario - Residential Build first**	**Construction Areas**	**Debris Export**	**Soil Haul**	**Vendor Delivery**	Roadway*	**Site A**	**Site B**	**Site C**	**Site D**	**Site E**
5.1	Scenario 2C.1 (year 1) = 3rd trimester to 1 year	Site C	0.01	0.22	0.37	0.61			33.84		
5.2	Scenario 2C.2 (year 2)		0.14	3.18	6.66	10.0	13.83	4.73	0.00	4.80	2.77
	Scenario 2C		**0.15**	**3.40**	**7.03**	**10.6**	**13.83**	**4.73**	**33.84**	**4.80**	**2.77**

Vendor and Soil/Debris Hauling Emissions only include 2 mile of roadway network inside 1000 ft radius
Emissions Scenario - Residential Build-out occurs first - such that residential receptors on-site exposed to subsequent Commerical Buildout (Worst-Case Exposure)

MITIGATED Residential Construction Emissions (tons) (as taken from CalEEMod)

	$PM_{2.5}$ tons (Exhaust)		$PM_{2.5}$ lbs (Exhaust)	
Construction Activity	On-Site Const Eqpt	Offsite (Vendor /Worker)	On-Site Const Eqpt	Offsite (Vendor /Worker)
Site Preparation	3.00E-05	0.00	0.06	0.04
Grading	7.00E-05	0.00004	0.14	0.08
Building Construction	0.0164	6.80E-04	32.80	1.36
Paving	1.60E-04	0	0.32	0.00
Architectural Coating	2.6000e-004	0	0.52	0.00
	1.67E-02	0.00074	33.84	1.48

MITIGATEDNon-Residential Construction Emissions (tons) (as taken from CalEEMod)

Emissions (tons) (as taken from CalEEMod)						
	$PM_{2.5}$(Exhaust) tons			lbs		
Construction Activity	On-Site Const Eqpt	Offsite (Vendor+worker)	Offsite (Haul)	On-Site Const Eqpt	Offsite (Vendor)	Offsite HHDT Haul
Demolition	1.64E-03	0.00001	7.60E-04	3.3	0.0	1.5
Site Preparation	3.10E-04	0.00000	0	0.6	0.0	0.0
Grading	4.80E-04	0.00001	0.0119	1.0	0.0	23.8
Building Construction	9.75E-03	1.215E-02	0	19.5	24.3	0.0
Paving	3.70E-04	0.00001	0	0.7	0.0	0.0
Architectural Coating	5.20E-04	0.00005	0	1.0	0.1	0.0
Totals	0.013	0.01223	7.60E-04	26.1	24.5	25.3

Demolition Haul Distance in CalEEMod	20	miles
Soil Haul Distance in CalEEMod	14	miles
Vendor Delivery Distance in CalEEMod	7.3	miles

Project Site	Soil Export[1] (Cubic Yards)	Soil Export (Proportion)	Demo Debris Off-Haul[3] (Tons)	Demo Debris Off-Haul (Proportion)
Site A	199,248	77.9%	7,026	48.1%
Site B	39,835	15.6%	2,540	17.4%
Site C	16,690	6.5%	1,160	7.9%
Site D	-	0.0%	2,448	16.8%
Site E	-	0.0%	1,421	9.7%
Totals	**255,773**	**100%**	**14,595**	**100%**

Residential Project Construction Emissions
(Residential Land Uses on Site A)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	0.00000
Offsite (demo hauling)	0.00037
Offsite (worker and vendor)	0.00000
Demolition (2024)	**0.00037**
Onsite	0.00044
Offsite	0.00000
Site Preparation (2024)	**0.00044**
Onsite	0.00105
Offsite (soil hauling)	0.00927
Offsite (worker and vendor)	0.00000
Grading (2024)	**0.01032**
Onsite	**0.04350**
Offsite (worker +vendor)	0.00068
Building Construction (2024)	**0.04418**
Onsite	0.00114
Offsite	0.00000
Paving (2025)	**0.00114**
Onsite	0.00026
Offsite	0.00000
Architectural Coating (2025)	**0.00026**
Total Onsite	**4.64E-02**
Demo Off-Site	**3.66E-04**
Soil Off-Site	**9.27E-03**
Vendor+Worker Off-Site	**6.80E-04**
Total Offsite	**1.03E-02**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**
Variable Factor	**4.20**	
On-Site Emissions	**92.78**	**pounds**
Off-Site Emissions	**20.63**	**lbs**
Off-Site (in 1000 ft)	**3.09**	**lbs**

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of the proposed residential land uses on Site A. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) lbs
Broadway Avenue	0.4	20.00%	**0.62**
North Main Street	0.5	25.00%	**0.77**
Civic Drive	0.4	20.00%	**0.62**
Parkside Drive	0.3	15.00%	**0.46**
Ygnacio Valley Way	0.4	20.00%	**0.62**
Totals	*2.0*	*100.00%*	*3.094E+00*

Notes:

[1] Conversion factor of 453.592 grams/pound was used to convert daily emissions expressed in pounds to daily emissions expressed in grams.

[2] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Nonresidential Project Construction Emissions
(Residential Land Uses on Site A)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	0.00892
Offsite (demo hauling)	0.00039
Offsite (worker and vendor)	0.00001
Demolition (2024)	**0.00932**
Onsite	0.00565
Offsite	0.00000
Site Preparation (2024)	**0.00565**
Onsite	0.00666
Offsite (soil hauling)	0.00263
Offsite (worker and vendor)	0.00001
Grading (2024)	**0.00930**
Onsite	0.06567
Offsite (worker and vendor)	0.01215
Building Construction (2024-2025)	**0.07782**
Onsite	0.00385
Offsite	0.00001
Paving (2025)	**0.00386**
Onsite	0.00052
Offsite	0.00005
Architectural Coating (2025)	**0.00057**
Total Onsite	**9.13E-02**
Demo Off-Site	**3.94E-04**
Soil Off-Site	**2.63E-03**
Vendor Off-Site	**1.22E-02**
Total Offsite	**1.52E-02**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**	
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**	
Variable Factor	**4.20**		
Construction Emissions (other sites)	**182.54**	**pounds**	
Site B (1.40 acres)	**58.88**	**lbs**	Site B Only
Site C (0.70 acre)	**29.44**	**lbs**	Site C Only
Site D (1.42 acres)	**59.73**	**lbs**	Site D Only
Site E (0.82 acre)	**34.49**	**lbs**	Site E Only
Off-Site Emissions	**31.14**	**lbs**	
Off-Site (within 1,000 ft)	**7.49**	**lbs**	

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of sites other than Site A. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ Emissions (lbs)
Broadway Avenue	0.4	20.00%	**1.50**
North Main Street	0.5	25.00%	**1.87**
Civic Drive	0.4	20.00%	**1.50**
Parkside Drive	0.3	15.00%	**1.12**
Ygnacio Valley Way	0.4	20.00%	**1.50**
Totals	*2.0*	*100.00%*	*7.49*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Residential Project Construction Emissions
(Residential Land Uses on Site B)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	0.00000
Offsite (demo hauling)	0.00013
Offsite (worker and vendor)	0.00000
Demolition (2024)	**0.00013**
Onsite	0.00044
Offsite	0.00000
Site Preparation (2024)	**0.00044**
Onsite	0.00105
Offsite (soil hauling)	0.00185
Offsite (worker and vendor)	0.00000
Grading (2024)	**0.00290**
Onsite	0.04350
Offsite (vendor)	0.00068
Building Construction (2024-2025)	**0.04418**
Onsite	0.00114
Offsite	0.00000
Paving (2025)	**0.00114**
Onsite	0.00026
Offsite	0.00000
Architectural Coating (2025)	**0.00026**
Total Onsite	**4.64E-02**
Demo Off-Site	**1.32E-04**
Soil Off-Site	**1.85E-03**
Vendor + Worker Off-Site	**6.80E-04**
Total Offsite	**2.67E-03**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**
Variable Factor	**4.20**	
On-Site Emissions	**92.78**	**lbs**
Off-Site Emissions	**5.33**	**pounds**
Off-Site (within 1,000 ft)	**0.93**	**lbs**

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of the proposed residential land uses on Site B. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emissions (lb)
Broadway Avenue	0.4	20.00%	**0.19**
North Main Street	0.5	25.00%	**0.23**
Civic Drive	0.4	20.00%	**0.19**
Parkside Drive	0.3	15.00%	**0.14**
Ygnacio Valley Way	0.4	20.00%	**0.19**
Totals	*2.0*	*100.00%*	*0.93*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Nonresidential Project Construction Emissions
(Residential Land Uses on Site B)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	0.00892
Offsite (demo hauling)	0.00063
Offsite (worker and vendor)	0.00001
Demolition (2024)	**0.00956**
Onsite	0.00565
Offsite	0.00000
Site Preparation (2024)	**0.00565**
Onsite	0.00666
Offsite (soil hauling)	0.01005
Offsite (worker and vendor)	0.00001
Grading (2024)	**0.01672**
Onsite	0.06567
Offsite (vendor)	0.01215
Building Construction (2024-2025)	**0.07782**
Onsite	0.00385
Offsite	0.00001
Paving (2025)	**0.00386**
Onsite	0.00052
Offsite	0.00005
Architectural Coating (2025)	**0.00057**
Total Onsite	**9.13E-02**
Demo Off-Site	**6.28E-04**
Soil Off-Site	**1.00E-02**
Vendor + Worker Off-Site	**1.22E-02**
Total Offsite	**2.29E-02**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**	
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**	
Variable Factor	**4.20**		
Construction Emissions (other sites)	**182.54**	**pounds**	
Site A (4.09 acres)	**106.20**	**lbs**	Site A Only
Site C (0.70 acre)	**18.18**	**lbs**	Site C Only
Site D (1.42 acres)	**36.87**	**lbs**	Site D Only
Site E (0.82 acre)	**21.29**	**lbs**	Site E Only
Off-Site Emissions	**45.81**	**lbs**	
Off-Site (within 1,000 ft)	**9.65**	**lbs**	

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of sites other than Site B. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emissions (lbs)
Broadway Avenue	0.4	20.00%	**1.93**
North Main Street	0.5	25.00%	**2.41**
Civic Drive	0.4	20.00%	**1.93**
Parkside Drive	0.3	15.00%	**1.45**
Ygnacio Valley Way	0.4	20.00%	**1.93**
Totals	*2.0*	*100.00%*	*9.65*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Residential Project Construction Emissions
(Residential Land Uses on Site C)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	
Onsite	
Offsite (demo hauling)	0.00006
Offsite (worker and vendor)	0.00000
Demolition (2024)	
Onsite	0.00044
Offsite	0.00000
Site Preparation (2024)	
Onsite	0.00105
Offsite (soil hauling)	0.00078
Offsite (worker and vendor)	0.00000
Grading (2024)	
Onsite	0.04350
Offsite	0.00068
Building Construction (2024-2025)	
Onsite	0.00114
Offsite	0.00000
Paving (2025)	
Onsite	0.00026
Offsite	0.00000
Architectural Coating (2025)	
Total Onsite	**4.64E-02**
Demo Off-Site	**6.04E-05**
Soil Off-Site	**7.76E-04**
Vendor + Worker Off-Site	**6.80E-04**
Total Offsite	**1.52E-03**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**
Variable Factor	**4.20**	
On-Site Emissions	**92.78**	**lbs**
Off-Site Emissions	**3.03**	**pounds**
Off-Site (within 1,000 ft)	**0.61**	**lbs**

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of the proposed residential land uses on Site C. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emissions (lb)
Broadway Avenue	0.4	20.00%	**0.12**
North Main Street	0.5	25.00%	**0.15**
Civic Drive	0.4	20.00%	**0.12**
Parkside Drive	0.3	15.00%	**0.09**
Ygnacio Valley Way	0.4	20.00%	**0.12**
Totals	*2.0*	*100.00%*	*0.61*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Nonresidential Project Construction Emissions
(Residential Land Uses on Site C)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	0.00892
Offsite (demo hauling)	0.00070
Offsite (worker and vendor)	0.00000
Demolition (2024)	**0.00962**
Onsite	0.00565
Offsite	0.00000
Site Preparation (2024)	**0.00565**
Onsite	0.00666
Offsite (soil hauling)	0.01112
Offsite (worker and vendor)	0.00001
Grading (2024)	**0.01779**
Onsite	0.06567
Offsite (vendor)	0.01215
Building Construction (2024-2025)	**0.07782**
Onsite	0.00385
Offsite	0.00001
Paving (2025)	**0.00386**
Onsite	0.00052
Offsite	0.00005
Architectural Coating (2025)	**0.00057**
Total Onsite	**9.13E-02**
Demo Off-Site	**7.00E-04**
Soil Off-Site	**1.11E-02**
Vendor + Worker Off-Site	**1.22E-02**
Total Offsite	**2.40E-02**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**	
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**	
Variable Factor	**4.20**		
Construction Emissio (other sites)	**182.54**	**pounds**	
Site A (4.09 acres)	**96.58**	**lbs**	Site A Only
Site B (1.40 acres)	**33.06**	**lbs**	Site C Only
Site D (1.42 acres)	**33.53**	**lbs**	Site D Only
Site E (0.82 acre)	**19.36**	**lbs**	Site E Only
Off-Site Emissions	**48.09**	**lbs**	
Off-Site (within 1,000	**10.01**	**lbs**	

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of sites other than Site C. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emissions (lb)
Broadway Avenue	0.4	20.00%	**2.00**
North Main Street	0.5	25.00%	**2.50**
Civic Drive	0.4	20.00%	**2.00**
Parkside Drive	0.3	15.00%	**1.50**
Ygnacio Valley Way	0.4	20.00%	**2.00**
Totals	*2.0*	*100.00%*	*10.01*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Residential Project Construction Emissions (Residential Land Uses on Site C)

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	0.00000
Offsite (demo hauling)	0.00006
Offsite (worker and vendor)	0.00000
Demolition (2024)	
Onsite	0.00003
Offsite	0.00000
Site Preparation (2024)	
Onsite	0.0000700
Offsite (soil hauling)	0.00078
Offsite (worker and vendor)	0.00000
Grading (2024)	
Onsite	0.01640
Offsite (vendor)	0.00068
Building Construction (2024-2025)	
Onsite	0.00016
Offsite	0.00000
Paving (2025)	
Onsite	0.00026
Offsite	0.00000
Architectural Coating (2025)	
Total Onsite	**1.69E-02**
Demo Off-Site	**6.04E-05**
Soil Off-Site	**7.76E-04**
Vendor + Worker Off-Site	**6.80E-04**
Total Offsite	**1.52E-03**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**
Variable Factor	**4.20**	
On-Site Emissions	**33.84**	**pounds**
Off-Site Emissions	**3.03**	**lbs**
Off-Site (within 1,000 ft)	**0.61**	**lbs**

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.
MM AIR-2	Tier 4 Final for engines >50 HP

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of the proposed residential land uses on Site C. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emissions (lb)
Broadway Avenue	0.4	20.00%	**0.12**
North Main Street	0.5	25.00%	**0.15**
Civic Drive	0.4	20.00%	**0.12**
Parkside Drive	0.3	15.00%	**0.09**
Ygnacio Valley Way	0.4	20.00%	**0.12**
Totals	*2.0*	*100.00%*	*0.61*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7 miles for vendor/worker trips.

Nonresidential Project Construction Emissions
(Residential Land Uses on Site C)
Mitigated Construction

Annual Construction Emissions (tons)
(as taken from CalEEMod)

Construction Activity	$PM_{2.5}$ (Exhaust)
Onsite	1.64E-03
Offsite (demo hauling)	7.00E-04
Offsite (worker and vendor)	1.00E-05
Demolition (2024)	
Onsite	3.10E-04
Offsite	0.00E+00
Site Preparation (2024)	
Onsite	4.80E-04
Offsite (soil hauling)	0.01112
Offsite (worker and vendor)	0.00001
Grading (2024)	
Onsite	0.00975
Offsite (vendor)	0.01215
Building Construction (2024-2025)	
Onsite	0.00037
Offsite	0.00001
Paving (2025)	
Onsite	0.00052
Offsite	0.00005
Architectural Coating (2025)	
Total Onsite	**1.31E-02**
Demo Off-Site	**7.00E-04**
Soil Off-Site	**1.11E-02**
Vendor + Worker Off-Site	**1.223E-02**
Total Offsite	**2.41E-02**

Exhaust $PM_{2.5}$ AERMOD Inputs

Construction Hours	**2,560.00**	**(8 hours/day, 320 workdays)**	
Elapsed Hours	**10,752.00**	**(24 hours/day, 448 calendar days)**	
Variable Factor	**4.20**		
Construction Emissions (other sites)	**26.14**	**pounds**	
Site A (4.09 acres)	**13.83**	**lbs**	Site A Only
Site B (1.40 acres)	**4.73**	**lbs**	Site B Only
Site D (1.42 acres)	**4.80**	**lbs**	Site D Only
Site E (0.82 acre)	**2.77**	**lbs**	Site E Only
Off-Site Emissions	**48.11**	**LBS**	
Off-Site (within 1,000 ft)	**10.02**	**LBS**	

Mitigation Applied	Mitigation Description
NSPD EIR AIR-1	BAAQMD Dust Control BMPs.
MM AIR-2	Tier 4 Final for engines >50 HP

Note: Off-site emissions generated during demolition debris off-hauling and soil off-hauling reflects those emissions which would be generated from the development of sites other than Site C. Please refer to the Soil Hauling and Demolition Debris Assignment calculation sheet contained in this Appendix for more information.

Off-Site AERMOD Input Adjustments

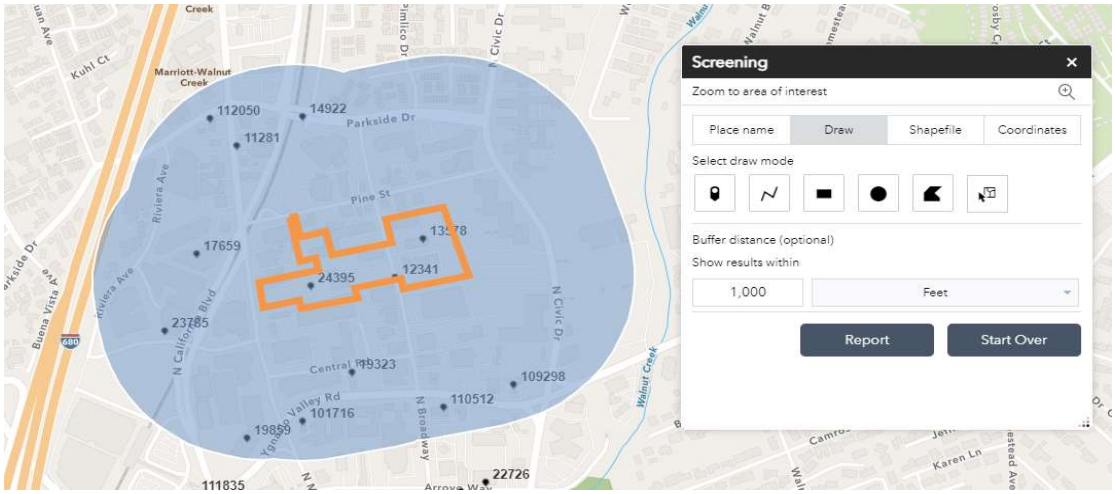
Roadway Segment	Length (Miles)	Proportion of Total	$PM_{2.5}$ (Exhaust) Emissions (lb)
Broadway Avenue	0.4	20.00%	**2.00**
North Main Street	0.5	25.00%	**2.50**
Civic Drive	0.4	20.00%	**2.00**
Parkside Drive	0.3	15.00%	**1.50**
Ygnacio Valley Way	0.4	20.00%	**2.00**
Totals	*2.0*	*100.00%*	*10.02*

Notes:

[1] Off-site emissions used in the AERMOD air dispersion model were reduced to account for the proportion of emissions occurring within 1,000 feet of the project site. Calculated based on 2.0 miles of roadway wihin 1,000 ft and 20 miles demo haul 14 miles soil haul and 7.3 miles for vendor/worker trips.

Existing Stationary Sources within 1,000 Feet of the Project

Lat, Long Project Site: 37.944467°, -122.501547°



Permitted Stationary Sources within 1,000 feet of the Project Site:

1	11281	Mike Rose's Auto Body, 2288 N Main St
2	12341	Mike Rose's Auto Body, 2140 N Broadway
3	13578	E-Tech Collision, 2141 N Broadway
4	14922	WC Walnut Creek, 2085 Jones Road
5	17659	Mt. Diablo Plaza, 2175 & 2185 N California Blvd
6	19323	555 YVR LLC, 555 Ygnacio Valley Road
7	19859	I&G Ygnacio, 2001 N Main St
8	23785	SPUS8 California Plaza, LP c/o CBRE Inc, 2121 N California Blvd
9	24395	Caliber Collision, 1414 Pine Street
10	101716	Xtra Oil Company, 1980 N Main St
11	109298	K Ygnacio Valley Service, 690 Ygnacio Valley Rd
12	110512	Walnut Creek Valero, 605 Ygnacio Valley Rd
13	112050	Main Street Chevron, 2329 N Main St

Notes: Facility 19422 is misrepresented in the image above and is located outside of 1,000 feet of the project site.

Mike Rose's Auto Body of Walnut Creek

Facility ID	11281
Name	Mike Rose's Auto Body of Walnut Creek
Address	2288 N Main St
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	0.000
Hazard	0.000
PM_2.5 (ug/m3)	0.000
Type	Contact BAAQMD

Zoom to •••

Mike Rose's Auto Body of Walnut Creek
Facility ID 11281

Distance from MIR: 1,245 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	0.000	Cancer Risk	0.000
Hazard	0.002	Hazard	<0.001
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Auto Body Coating Operation		

Generic Case

Distance (meters)	Distance (feet)	Multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
295	967.8	0.136		0		0
300	984.3	0.132	0.002	0.000263493		0

Mike Rose's Auto Body Inc

Facility ID	12341
Name	Mike Rose's Auto Body Inc
Address	2140 N Broadway
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	0.000
Hazard	0.000
PM_2.5 (ug/m3)	0.000
Type	Contact BAAQMD
Latitude	37.909

Mike Rose's Auto Body Inc
Facility ID 12341

Distance from MIR: 155 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	0.000	Cancer Risk	0.000
Hazard	0.000	Hazard	0.000
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Auto Body Coating Operation		

E-Tech Collision

Facility ID	13578
Name	E-Tech Collision
Address	2141 N Broadway
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	0.000
Hazard	0.000
PM_2.5 (ug/m3)	0.000
Type	Contact BAAQMD
Latitude	37.909
Longitude	-122.061

E-Tech Collision
Facility ID 13578

Distance from MIR: 585 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	0.000	Cancer Risk	0.000
Hazard	<0.001	Hazard	<0.001
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Auto Body Coating Operation		

Mt Diablo Plaza

Facility ID	17659
Name	Mt Diablo Plaza
Address	2175th & 2185 N Californa Blvd
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	9.900
Hazard	0.020
PM_2.5 (ug/m3)	0.010
Type	Generators
Latitude	37.909

Mt Diablo Plaza
Facility ID 17659

Distance from MIR: 1,400 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	3.770	Cancer Risk	0.151
Hazard	0.010	Hazard	<0.001
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Generators		

Diesel Backup Generator						
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
280	918.6	0.04	3.77	0.1508		0
280	918.6	0.04	0.01	0.0004		0

555 YVR LLC

Facility ID	19323
Name	555 YVR LLC
Address	555 Ygnacio Valley Road
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	10.520
Hazard	0.000
PM_2.5 (ug/m3)	0.010
Type	Generators
Latitude	37.907

555 YVR LLC
Facility ID 19323

Distance from MIR: 960 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	10.520	Cancer Risk	0.421
Hazard	0.000	Hazard	0.000
PM2.5 (ug/m3)	0.010	PM2.5 (ug/m3)	<0.001
Source Type	Generators		

Diesel Backup Generator						
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
280	918.6	0.04	10.52	0.4208	0.01	0.0004

I&G Ygnacio III

Facility ID	19859
Name	I&G Ygnacio III
Address	2001 N Main Street
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	2.670
Hazard	0.000
PM_2.5 (ug/m3)	0.010
Type	Generators
Latitude	37.906
Longitude	-122.065

I&G Ygnacio III
Facility ID 19859

Distance from MIR: 1,520 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	2.670	Cancer Risk	0.107
Hazard	0.000	Hazard	0.000
PM2.5 (ug/m3)	0.010	PM2.5 (ug/m3)	<0.001
Source Type	Generators		

Diesel Backup Generator						
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
280	918.6	0.04	2.67	0.1068	0.01	0.0004

SPUS8 California Plaza, LP c/o CBRE Inc

Facility ID	23785
Name	SPUS8 California Plaza, LP c/o CBRE Inc
Address	2121 N California Blvd
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	20.730
Hazard	0.030
PM_2.5 (ug/m3)	0.020
Type	Contact BAAQMD

SPUS8 California, LP c/o CBRE Inc
Facility ID 23785

Distance from MIR: 1,385 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	20.728	Cancer Risk	0.829
Hazard	0.032	Hazard	0.001
PM2.5 (ug/m3)	0.023	PM2.5 (ug/m3)	0.001
Source Type	Generator, Boiler		

Diesel Backup Generator						
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
280	918.6	0.04	20.728	0.82912	0.023	0.00092
280	918.6	0.04	0.032	0.00128		0

Caliber Collision Center

Facility ID	24395
Name	Caliber Collision Center
Address	1414 Pine Street
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	0.000
Hazard	0.000
PM_2.5 (ug/m3)	0.010
Type	Contact BAAQMD
Latitude	37.909

Caliber Collision Center
Facility ID 24395

Distance from MIR: 810 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	0.004	Cancer Risk	0.001
Hazard	0.002	Hazard	<0.001
PM2.5 (ug/m3)	0.007	PM2.5 (ug/m3)	0.001
Source Type	Auto Body Coating Operation, Distillation Process		

Generic Case

Distance (meters)	Distance (feet)	Multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
245	803.8	0.189	0.004	0.00075602	0.007	0.001323034
245	803.8	0.189	0.002	0.00037801		0

Xtra Oil Company

Facility ID	101716
Name	Xtra Oil Company
Address	1980 N Main St
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	71.820
Hazard	0.320
PM_2.5 (ug/m3)	0.000
Type	Gas Dispensing Facility
Latitude	37.906
Longitude	-122.064

Xtra Oil Company
Facility ID 101716

Distance from MIR: 1,205 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	71.820	Cancer Risk	1.075
Hazard	0.320	Hazard	0.005
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Gas Dispensing Facility		

Gas Station

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard
0	0.0	1.000		0.0000
300	984.3	0.015	71.82	1.0748
300	984.3	0.015	0.32	0.0048

K Ygnacio Valley Service

Facility ID	109298
Name	K Ygnacio Valley Service
Address	690 Ygnacio Valley Rd
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	22.680
Hazard	0.100
PM_2.5 (ug/m3)	0.000
Type	Gas Dispensing Facility
Latitude	37.907

K Ygnacio Valley Service
Facility ID 109298

Distance from MIR: 830 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	22.680	Cancer Risk	0.457
Hazard	0.100	Hazard	0.002
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Gas Dispensing Facility		

Gas Station

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard
0	0.0	1.000		0.0000
250	820.2	0.020	22.68	0.4568
250	820.2	0.020	0.1	0.0020

Walnut Creek Valero	
Facility ID	110512
Name	Walnut Creek Valero
Address	605 Ygnacio Valley Rd
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	48.090
Hazard	0.210
PM_2.5 (ug/m3)	0.000
Type	Gas Dispensing Facility
Latitude	37.906
Longitude	-122.061

Walnut Creek Valero
Facility ID 110512

Distance from MIR: 885 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	48.090	Cancer Risk	0.855
Hazard	0.210	Hazard	0.004
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Gas Dispensing Facility		

Gas Station				
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard
0	0.0	1.000		0.0000
270	885.8	0.018	48.09	0.8546
270	885.8	0.018	0.21	0.0037

Main Street Chevron	
Facility ID	112050
Name	Main Street Chevron
Address	2329 N Main St
City	Walnut Creek
St	CA
Zip	94596
County	Contra Costa
Cancer (per million)	29.160
Hazard	0.130
PM_2.5 (ug/m3)	0.000
Type	Gas Dispensing Facility
Latitude	37.912
Longitude	-122.066

Main Street Chevron
Facility ID 112050

Distance from MIR: 1,575 feet

Data provided by BAAQMD:		**Data adjusted for distance to MIR:**	
Cancer Risk	29.160	Cancer Risk	0.436
Hazard	0.130	Hazard	0.002
PM2.5 (ug/m3)	0.000	PM2.5 (ug/m3)	0.000
Source Type	Gas Dispensing Facility		

Gas Station				
Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard
0	0.0	1.000		0.0000
300	984.3	0.015	29.16	0.4364
300	984.3	0.015	0.13	0.0019

TWC2.2 Unmitigated Non-Residential Buildout of B,C,D and E - On-Site A

HARP Project Summary Report 12/6/2022 2:12:32 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC2.2
Project Output Directory: C:\HARP2\PROJECTS\TWC2.2
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	0	0	1
SITE_B	9901	DieselExhPM	1	58.88	0	1
SITE_C	9901	DieselExhPM	1	29.44	0	1
SITE_D	9901	DieselExhPM	1	59.73	0	1
SITE_E	9901	DieselExhPM	1	34.49	0	1
BDWY	9901	DieselExhPM	1	1.5	0	1
MAIN	9901	DieselExhPM	1	1.87	0	1
CIVIC	9901	DieselExhPM	1	1.5	0	1
YGNO	9901	DieselExhPM	1	1.5	0	1
PARK	9901	DieselExhPM	1	1.12	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

```
HARP2 - HRACalc (dated 22118) 12/2/2022 7:55:58 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

**********
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\HARP2\PROJECTS\TWC2.2\hra\TWC2.2_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC2.2\hra\TWC2.2_CANCER_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/2/2022 7:56:58 AM
RISK SCENARIO: NCChronic

LINE	REC	TYPE	X	Y	CANCER RISK
1	15	ALL	582342	4196162	2.4613000e-05
2	16	ALL	582347	4196163	2.4430000e-05
3	14	ALL	582337	4196161	2.4009000e-05
4	13	ALL	582333	4196160	2.3232000e-05
5	17	ALL	582352	4196164	2.2969000e-05
6	12	ALL	582328	4196159	2.2408000e-05
7	45	ALL	582448	4196130	2.2352000e-05
8	46	ALL	582450	4196125	2.2192000e-05
9	44	ALL	582447	4196134	2.2151000e-05
10	11	ALL	582323	4196157	2.1941000e-05

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/2/2022 7:57:42 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	15	ALL	582342	4196162	2.7679000e-02
2	16	ALL	582347	4196163	2.7473000e-02
3	14	ALL	582337	4196161	2.7000000e-02
4	13	ALL	582333	4196160	2.6126000e-02
5	17	ALL	582352	4196164	2.5831000e-02
6	12	ALL	582328	4196159	2.5199000e-02
7	45	ALL	582448	4196130	2.5137000e-02
8	46	ALL	582450	4196125	2.4956000e-02
9	44	ALL	582447	4196134	2.4911000e-02
10	11	ALL	582323	4196157	2.4674000e-02

* MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN
* PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 142 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
582318.03000	4196156.28000	1.2162310e-01	49.31	49.43	1.50	PERIOD	ALL	00043872	
582434.62000	4196184.27000	1.0003490e-01	50.47	50.47	1.50	PERIOD	ALL	00043872	
582452.96000	4196111.52000	1.1265010e-01	49.74	49.74	1.50	PERIOD	ALL	00043872	
582383.80000	4196094.54000	4.2654720e-02	51.13	51.13	1.50	PERIOD	ALL	00043872	
582388.38000	4196074.72000	3.4875830e-02	51.07	51.07	1.50	PERIOD	ALL	00043872	
582282.45000	4196052.16000	1.5393990e-02	50.01	192.37	1.50	PERIOD	ALL	00043872	
582279.51000	4196069.38000	1.6933230e-02	48.26	192.37	1.50	PERIOD	ALL	00043872	
582214.32000	4196055.42000	1.3369040e-02	45.50	198.92	1.50	PERIOD	ALL	00043872	
582204.80000	4196106.51000	1.9440120e-02	45.14	198.92	1.50	PERIOD	ALL	00043872	
582323.00000	4196133.54000	4.3456980e-02	50.35	50.35	1.50	PERIOD	ALL	00043872	
582322.89000	4196157.45000	1.2336910e-01	49.61	49.61	1.50	PERIOD	ALL	00043872	
582327.75000	4196158.61000	1.2599630e-01	49.79	49.79	1.50	PERIOD	ALL	00043872	
582332.60000	4196159.78000	1.3062930e-01	49.78	50.27	1.50	PERIOD	ALL	00043872	
582337.46000	4196160.95000	1.3500030e-01	49.82	49.82	1.50	PERIOD	ALL	00043872	
582342.32000	4196162.11000	1.3839550e-01	49.94	49.94	1.50	PERIOD	ALL	00043872	
582347.18000	4196163.28000	1.3736620e-01	50.12	50.12	1.50	PERIOD	ALL	00043872	
582352.04000	4196164.44000	1.2915360e-01	50.31	50.31	1.50	PERIOD	ALL	00043872	
582356.89000	4196165.61000	1.2078820e-01	50.32	50.32	1.50	PERIOD	ALL	00043872	
582361.75000	4196166.78000	1.1243260e-01	50.31	50.31	1.50	PERIOD	ALL	00043872	
582366.61000	4196167.94000	1.0501830e-01	50.26	50.26	1.50	PERIOD	ALL	00043872	
582371.47000	4196169.11000	9.8516930e-02	50.24	50.24	1.50	PERIOD	ALL	00043872	
582376.32000	4196170.28000	9.3086120e-02	50.23	50.23	1.50	PERIOD	ALL	00043872	
582381.18000	4196171.44000	8.8693430e-02	50.22	50.22	1.50	PERIOD	ALL	00043872	
582386.04000	4196172.61000	8.5235980e-02	50.24	50.24	1.50	PERIOD	ALL	00043872	
582390.90000	4196173.77000	8.2718450e-02	50.27	50.27	1.50	PERIOD	ALL	00043872	
582395.76000	4196174.94000	8.1080540e-02	50.32	50.32	1.50	PERIOD	ALL	00043872	
582400.61000	4196176.11000	8.0342260e-02	50.36	50.36	1.50	PERIOD	ALL	00043872	
582405.47000	4196177.27000	8.0521000e-02	50.36	50.36	1.50	PERIOD	ALL	00043872	
582410.33000	4196178.44000	8.1551350e-02	50.37	50.37	1.50	PERIOD	ALL	00043872	
582415.19000	4196179.61000	8.3458270e-02	50.39	50.39	1.50	PERIOD	ALL	00043872	
582420.05000	4196180.77000	8.6277050e-02	50.42	50.42	1.50	PERIOD	ALL	00043872	
582424.90000	4196181.94000	9.0082480e-02	50.45	50.45	1.50	PERIOD	ALL	00043872	
582429.76000	4196183.10000	9.4535460e-02	50.48	50.48	1.50	PERIOD	ALL	00043872	
582435.77000	4196179.72000	9.3251910e-02	50.49	50.49	1.50	PERIOD	ALL	00043872	
582436.91000	4196175.18000	8.7086980e-02	50.50	50.50	1.50	PERIOD	ALL	00043872	
582438.06000	4196170.63000	8.3262120e-02	50.50	50.50	1.50	PERIOD	ALL	00043872	
582439.20000	4196166.08000	8.2393330e-02	50.49	50.49	1.50	PERIOD	ALL	00043872	
582440.35000	4196161.54000	8.5175040e-02	50.49	50.49	1.50	PERIOD	ALL	00043872	
582441.50000	4196156.99000	9.2465800e-02	50.48	50.48	1.50	PERIOD	ALL	00043872	
582442.64000	4196152.44000	1.0147250e-01	50.49	50.49	1.50	PERIOD	ALL	00043872	
582443.79000	4196147.89000	1.1019660e-01	50.48	50.48	1.50	PERIOD	ALL	00043872	
582444.94000	4196143.35000	1.1705300e-01	50.45	50.45	1.50	PERIOD	ALL	00043872	
582446.08000	4196138.80000	1.2167610e-01	50.41	50.41	1.50	PERIOD	ALL	00043872	
582447.23000	4196134.25000	1.2455340e-01	50.33	50.33	1.50	PERIOD	ALL	00043872	
582448.38000	4196129.71000	1.2568260e-01	50.21	50.21	1.50	PERIOD	ALL	00043872	
582449.52000	4196125.16000	1.2478240e-01	50.10	50.10	1.50	PERIOD	ALL	00043872	
582450.67000	4196120.61000	1.2194240e-01	49.98	49.98	1.50	PERIOD	ALL	00043872	
582451.81000	4196116.07000	1.1749880e-01	49.85	49.85	1.50	PERIOD	ALL	00043872	
582448.35000	4196110.39000	1.0455220e-01	49.82	49.82	1.50	PERIOD	ALL	00043872	
582443.74000	4196109.26000	9.7386850e-02	49.92	49.92	1.50	PERIOD	ALL	00043872	
582439.13000	4196108.12000	9.0219030e-02	50.02	50.02	1.50	PERIOD	ALL	00043872	
582434.52000	4196106.99000	8.3832320e-02	50.11	50.11	1.50	PERIOD	ALL	00043872	
582429.91000	4196105.86000	7.8088400e-02	50.23	50.23	1.50	PERIOD	ALL	00043872	
582425.30000	4196104.73000	7.2959260e-02	50.35	50.35	1.50	PERIOD	ALL	00043872	
582420.69000	4196103.60000	6.8351670e-02	50.47	50.47	1.50	PERIOD	ALL	00043872	
582416.07000	4196102.46000	6.4174380e-02	50.58	50.58	1.50	PERIOD	ALL	00043872	
582411.46000	4196101.33000	6.0393190e-02	50.67	50.67	1.50	PERIOD	ALL	00043872	
582406.85000	4196100.20000	5.6909840e-02	50.76	50.76	1.50	PERIOD	ALL	00043872	
582402.24000	4196099.07000	5.3670800e-02	50.86	50.86	1.50	PERIOD	ALL	00043872	
582397.63000	4196097.94000	5.0643610e-02	50.96	50.96	1.50	PERIOD	ALL	00043872	

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582393.02000 4196096.80000 4.7794650e-02    51.06    51.06     1.50  PERIOD  ALL       00043872
582388.41000 4196095.67000 4.5156510e-02    51.09    51.09     1.50  PERIOD  ALL       00043872
582384.72000 4196090.58000 4.1148050e-02    51.15    51.15     1.50  PERIOD  ALL       00043872
582385.63000 4196086.61000 3.9614060e-02    51.16    51.16     1.50  PERIOD  ALL       00043872
582386.55000 4196082.65000 3.8064970e-02    51.15    51.15     1.50  PERIOD  ALL       00043872
582387.46000 4196078.68000 3.6484340e-02    51.11    51.11     1.50  PERIOD  ALL       00043872
582383.56000 4196073.70000 3.3126420e-02    51.16    51.16     1.50  PERIOD  ALL       00043872
582378.75000 4196072.67000 3.1500420e-02    51.20    51.20     1.50  PERIOD  ALL       00043872
582373.94000 4196071.64000 2.9977660e-02    51.24    51.24     1.50  PERIOD  ALL       00043872
582369.12000 4196070.62000 2.8561280e-02    51.27    51.27     1.50  PERIOD  ALL       00043872
582364.31000 4196069.59000 2.7248980e-02    51.28    51.28     1.50  PERIOD  ALL       00043872
582359.49000 4196068.57000 2.6038990e-02    51.27    51.27     1.50  PERIOD  ALL       00043872
582354.68000 4196067.54000 2.4927330e-02    51.23    51.23     1.50  PERIOD  ALL       00043872
582349.86000 4196066.52000 2.3907280e-02    51.17    51.17     1.50  PERIOD  ALL       00043872
582345.05000 4196065.49000 2.2969260e-02    51.10    51.10     1.50  PERIOD  ALL       00043872
582340.23000 4196064.46000 2.2102260e-02    51.04    51.04     1.50  PERIOD  ALL       00043872
582335.42000 4196063.44000 2.1304830e-02    50.99    50.99     1.50  PERIOD  ALL       00043872
582330.60000 4196062.42000 2.0561080e-02    50.98    50.98     1.50  PERIOD  ALL       00043872
582325.79000 4196061.39000 1.9874070e-02    50.96    50.96     1.50  PERIOD  ALL       00043872
582320.97000 4196060.36000 1.9233050e-02    50.95    50.95     1.50  PERIOD  ALL       00043872
582316.16000 4196059.34000 1.8641120e-02    50.91    50.91     1.50  PERIOD  ALL       00043872
582311.34000 4196058.31000 1.8082210e-02    50.88    50.88     1.50  PERIOD  ALL       00043872
582306.53000 4196057.29000 1.7558940e-02    50.84   192.37     1.50  PERIOD  ALL       00043872
582301.71000 4196056.26000 1.7062620e-02    50.80   192.37     1.50  PERIOD  ALL       00043872
582296.90000 4196055.24000 1.6596690e-02    50.74   192.37     1.50  PERIOD  ALL       00043872
582292.08000 4196054.21000 1.6167920e-02    50.55   192.37     1.50  PERIOD  ALL       00043872
582287.27000 4196053.18000 1.5768490e-02    50.30   192.37     1.50  PERIOD  ALL       00043872
582281.71000 4196056.46000 1.5772500e-02    49.57   192.37     1.50  PERIOD  ALL       00043872
582280.98000 4196060.77000 1.6155870e-02    49.11   192.37     1.50  PERIOD  ALL       00043872
582280.24000 4196065.08000 1.6542180e-02    48.67   192.37     1.50  PERIOD  ALL       00043872
582274.85000 4196068.38000 1.6588460e-02    48.03   192.37     1.50  PERIOD  ALL       00043872
582270.20000 4196067.39000 1.6227050e-02    47.89   192.37     1.50  PERIOD  ALL       00043872
582265.54000 4196066.39000 1.5885940e-02    47.83   192.37     1.50  PERIOD  ALL       00043872
582260.88000 4196065.39000 1.5571310e-02    47.77   192.37     1.50  PERIOD  ALL       00043872
582256.23000 4196064.39000 1.5282740e-02    47.70   198.92     1.50  PERIOD  ALL       00043872
582251.57000 4196063.40000 1.5023520e-02    47.56   198.92     1.50  PERIOD  ALL       00043872
582246.92000 4196062.40000 1.4789330e-02    47.39   198.92     1.50  PERIOD  ALL       00043872
582242.26000 4196061.40000 1.4584550e-02    47.14   198.92     1.50  PERIOD  ALL       00043872
582237.60000 4196060.41000 1.4406940e-02    46.90   198.92     1.50  PERIOD  ALL       00043872
582232.95000 4196059.41000 1.4264390e-02    46.57   198.92     1.50  PERIOD  ALL       00043872
582228.29000 4196058.41000 1.4156310e-02    46.24   198.92     1.50  PERIOD  ALL       00043872
582223.63000 4196057.41000 1.4087500e-02    45.91   198.92     1.50  PERIOD  ALL       00043872
582218.98000 4196056.42000 1.3539350e-02    45.68   198.92     1.50  PERIOD  ALL       00043872
582213.45000 4196060.07000 1.3328380e-02    45.39   198.92     1.50  PERIOD  ALL       00043872
582212.59000 4196064.71000 1.3763990e-02    45.34   198.92     1.50  PERIOD  ALL       00043872
582211.72000 4196069.35000 1.4594020e-02    45.29   198.92     1.50  PERIOD  ALL       00043872
582210.86000 4196074.00000 1.5129380e-02    45.25   198.92     1.50  PERIOD  ALL       00043872
582209.99000 4196078.64000 1.5211260e-02    45.22   198.92     1.50  PERIOD  ALL       00043872
582209.13000 4196083.29000 1.5811940e-02    45.19   198.92     1.50  PERIOD  ALL       00043872
582208.26000 4196087.93000 1.6790810e-02    45.18   198.92     1.50  PERIOD  ALL       00043872
582207.40000 4196092.58000 1.7040480e-02    45.17   198.92     1.50  PERIOD  ALL       00043872
582206.53000 4196097.22000 1.7691520e-02    45.16   198.92     1.50  PERIOD  ALL       00043872
582205.67000 4196101.87000 1.8786670e-02    45.15   198.92     1.50  PERIOD  ALL       00043872
582209.53000 4196107.59000 2.0128170e-02    45.22   198.92     1.50  PERIOD  ALL       00043872
582214.26000 4196108.67000 2.1238600e-02    45.33   198.92     1.50  PERIOD  ALL       00043872
582218.98000 4196109.75000 2.1864940e-02    45.45   198.92     1.50  PERIOD  ALL       00043872
582223.71000 4196110.83000 2.2558350e-02    45.53   198.92     1.50  PERIOD  ALL       00043872
582228.44000 4196111.92000 2.3312990e-02    45.57   198.92     1.50  PERIOD  ALL       00043872
582233.17000 4196113.00000 2.4114330e-02    45.58   198.92     1.50  PERIOD  ALL       00043872
582237.90000 4196114.08000 2.4951370e-02    45.59   198.92     1.50  PERIOD  ALL       00043872
582242.62000 4196115.16000 2.5811800e-02    45.60   198.92     1.50  PERIOD  ALL       00043872
582247.35000 4196116.24000 2.6684320e-02    45.61   198.92     1.50  PERIOD  ALL       00043872
582252.08000 4196117.32000 2.7555230e-02    45.63   198.92     1.50  PERIOD  ALL       00043872
582256.81000 4196118.40000 2.8396870e-02    45.67   198.92     1.50  PERIOD  ALL       00043872
582261.54000 4196119.48000 2.9186220e-02    45.74   192.37     1.50  PERIOD  ALL       00043872
582266.26000 4196120.57000 2.9891030e-02    45.88   192.37     1.50  PERIOD  ALL       00043872
582270.99000 4196121.65000 3.0474240e-02    46.08   192.37     1.50  PERIOD  ALL       00043872
582275.72000 4196122.73000 3.0834210e-02    46.49   192.37     1.50  PERIOD  ALL       00043872
582280.45000 4196123.81000 3.0950920e-02    47.11   192.37     1.50  PERIOD  ALL       00043872
```

```
582285.18000 4196124.89000 3.0900050e-02    47.88   192.37     1.50  PERIOD  ALL       00043872
582289.90000 4196125.97000 3.0121940e-02    48.32   192.37     1.50  PERIOD  ALL       00043872
582294.63000 4196127.05000 3.0453510e-02    48.63   192.37     1.50  PERIOD  ALL       00043872
582299.36000 4196128.13000 3.1252460e-02    48.84    50.71     1.50  PERIOD  ALL       00043872
582304.09000 4196129.21000 3.2655660e-02    49.05    50.71     1.50  PERIOD  ALL       00043872
582308.82000 4196130.30000 3.4760290e-02    49.28    50.60     1.50  PERIOD  ALL       00043872
582313.54000 4196131.38000 3.7361320e-02    49.59    50.60     1.50  PERIOD  ALL       00043872
582318.27000 4196132.46000 4.0264230e-02    49.98    49.98     1.50  PERIOD  ALL       00043872
582322.01000 4196138.09000 5.0955450e-02    50.11    50.70     1.50  PERIOD  ALL       00043872
582321.01000 4196142.64000 6.1851190e-02    49.88    49.88     1.50  PERIOD  ALL       00043872
582320.02000 4196147.18000 7.7550780e-02    49.68    50.44     1.50  PERIOD  ALL       00043872
582319.02000 4196151.73000 9.8809350e-02    49.51    49.51     1.50  PERIOD  ALL       00043872
582969.53000 4195797.56000 2.6754810e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on A - Non-Residential on B,C,D,E - Offsite Max Residence

HARP Project Summary Report 12/6/2022 3:07:22 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC2_RES
Project Output Directory: C:\HARP2\PROJECTS\TWC2_RES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	46.39	0	1
SITE_B	9901	DieselExhPM	1	29.44	0	1
SITE_C	9901	DieselExhPM	1	14.72	0	1
SITE_D	9901	DieselExhPM	1	29.86	0	1
SITE_E	9901	DieselExhPM	1	17.24	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/1/2022 12:53:26 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC2_RES\hra\TWC2_RES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC2_RES\hra\TWC2_RES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 12:53:58 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	327	ALL	582626	4196098	1.4429000e-05
2	415	ALL	582631	4196098	1.3880000e-05
3	414	ALL	582626	4196094	1.3627000e-05
4	416	ALL	582636	4196099	1.3343000e-05
5	413	ALL	582627	4196091	1.2867000e-05
6	417	ALL	582640	4196099	1.2826000e-05
7	418	ALL	582645	4196099	1.2326000e-05
8	412	ALL	582627	4196087	1.2145000e-05
9	419	ALL	582650	4196099	1.1846000e-05
10	326	ALL	582627	4196083	1.1464000e-05

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/1/2022 5:48:50 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	327	ALL	582626	4196098	8.4359000e-03
2	415	ALL	582631	4196098	8.1146000e-03
3	414	ALL	582626	4196094	7.9667000e-03
4	416	ALL	582636	4196099	7.8011000e-03
5	413	ALL	582627	4196091	7.5226000e-03
6	417	ALL	582640	4196099	7.4984000e-03
7	418	ALL	582645	4196099	7.2062000e-03
8	412	ALL	582627	4196087	7.1006000e-03
9	419	ALL	582650	4196099	6.9255000e-03
10	326	ALL	582627	4196083	6.7022000e-03

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/01/22
* AERMET ( 14134):                                                                        00:53:09
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   644 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ ____________ _____________ _______ _______ _______ _______ _________ ________ ________
  582033.26000 4196289.55000 9.5811790e-04   44.86   239.60     1.50  PERIOD  ALL       00043872
  582098.16000 4196263.48000 1.5368950e-03   50.22   198.92     1.50  PERIOD  ALL       00043872
  582100.26000 4196247.28000 1.7687640e-03   50.77   198.92     1.50  PERIOD  ALL       00043872
  582096.16000 4196234.19000 1.9588580e-03   50.61   198.92     1.50  PERIOD  ALL       00043872
  582034.59000 4196258.60000 1.1925330e-03   46.16   239.60     1.50  PERIOD  ALL       00043872
  582037.90000 4196287.69000 9.8878480e-04   45.36   239.60     1.50  PERIOD  ALL       00043872
  582042.53000 4196285.83000 1.0187550e-03   46.24   239.60     1.50  PERIOD  ALL       00043872
  582047.17000 4196283.96000 1.0472900e-03   47.79   239.60     1.50  PERIOD  ALL       00043872
  582051.80000 4196282.10000 1.0706750e-03   48.91   198.92     1.50  PERIOD  ALL       00043872
  582056.44000 4196280.24000 1.0963850e-03   49.85   198.92     1.50  PERIOD  ALL       00043872
  582061.07000 4196278.38000 1.1299130e-03   50.18   198.92     1.50  PERIOD  ALL       00043872
  582065.71000 4196276.51000 1.1674550e-03   50.40   198.92     1.50  PERIOD  ALL       00043872
  582070.35000 4196274.65000 1.2089950e-03   50.50   198.92     1.50  PERIOD  ALL       00043872
  582074.98000 4196272.79000 1.2531930e-03   50.58   198.92     1.50  PERIOD  ALL       00043872
  582079.62000 4196270.93000 1.2996350e-03   50.68   198.92     1.50  PERIOD  ALL       00043872
  582084.25000 4196269.07000 1.3511870e-03   50.66   198.92     1.50  PERIOD  ALL       00043872
  582088.89000 4196267.20000 1.4057810e-03   50.66   198.92     1.50  PERIOD  ALL       00043872
  582093.52000 4196265.34000 1.4684460e-03   50.46   198.92     1.50  PERIOD  ALL       00043872
  582098.69000 4196259.43000 1.5855730e-03   50.48   198.92     1.50  PERIOD  ALL       00043872
  582099.21000 4196255.38000 1.6389400e-03   50.70   198.92     1.50  PERIOD  ALL       00043872
  582099.73000 4196251.33000 1.7019030e-03   50.72   198.92     1.50  PERIOD  ALL       00043872
  582098.89000 4196242.92000 1.8257800e-03   50.78   198.92     1.50  PERIOD  ALL       00043872
  582097.53000 4196238.55000 1.8897590e-03   50.71   198.92     1.50  PERIOD  ALL       00043872
  582091.76000 4196235.93000 1.8682570e-03   50.82   198.92     1.50  PERIOD  ALL       00043872
  582087.36000 4196237.68000 1.7874630e-03   50.90   198.92     1.50  PERIOD  ALL       00043872
  582082.97000 4196239.42000 1.7135480e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582078.57000 4196241.16000 1.6449040e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582074.17000 4196242.91000 1.5803270e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582069.77000 4196244.65000 1.5208140e-03   50.88   198.92     1.50  PERIOD  ALL       00043872
  582065.38000 4196246.39000 1.4647890e-03   50.83   198.92     1.50  PERIOD  ALL       00043872
  582060.98000 4196248.14000 1.4138570e-03   50.67   198.92     1.50  PERIOD  ALL       00043872
  582056.58000 4196249.88000 1.3666890e-03   50.46   198.92     1.50  PERIOD  ALL       00043872
  582052.18000 4196251.63000 1.3315460e-03   49.73   198.92     1.50  PERIOD  ALL       00043872
  582047.78000 4196253.37000 1.2989420e-03   48.78   198.92     1.50  PERIOD  ALL       00043872
  582043.39000 4196255.11000 1.2712550e-03   47.48   239.60     1.50  PERIOD  ALL       00043872
  582038.99000 4196256.86000 1.2319370e-03   46.60   239.60     1.50  PERIOD  ALL       00043872
  582034.40000 4196263.02000 1.1520310e-03   46.03   239.60     1.50  PERIOD  ALL       00043872
  582034.21000 4196267.44000 1.1141910e-03   45.87   239.60     1.50  PERIOD  ALL       00043872
  582034.02000 4196271.86000 1.0789250e-03   45.67   239.60     1.50  PERIOD  ALL       00043872
  582033.83000 4196276.29000 1.0458740e-03   45.46   239.60     1.50  PERIOD  ALL       00043872
  582033.64000 4196280.71000 1.0148650e-03   45.23   239.60     1.50  PERIOD  ALL       00043872
  582033.45000 4196285.13000 9.8566800e-04   45.01   239.60     1.50  PERIOD  ALL       00043872
  581942.98000 4196183.33000 1.4417680e-03   51.77   239.60     1.50  PERIOD  ALL       00043872
  581945.42000 4196182.66000 1.4735120e-03   51.19   239.60     1.50  PERIOD  ALL       00043872
  581956.94000 4196148.43000 2.0612040e-03   50.82   239.60     1.50  PERIOD  ALL       00043872
  581952.97000 4196130.72000 2.3074810e-03   50.79   239.60     1.50  PERIOD  ALL       00043872
  581943.39000 4196122.05000 2.3196490e-03   51.57   239.60     1.50  PERIOD  ALL       00043872
  581941.58000 4196113.92000 2.4255780e-03   51.51   239.60     1.50  PERIOD  ALL       00043872
  581919.00000 4196090.07000 2.4373160e-03   53.63   239.60     1.50  PERIOD  ALL       00043872
  581946.86000 4196178.38000 1.5383560e-03   51.06   239.60     1.50  PERIOD  ALL       00043872
  581948.30000 4196174.10000 1.6056420e-03   50.96   239.60     1.50  PERIOD  ALL       00043872
  581949.74000 4196169.82000 1.6748880e-03   50.92   239.60     1.50  PERIOD  ALL       00043872
  581951.18000 4196165.54000 1.7466350e-03   50.90   239.60     1.50  PERIOD  ALL       00043872
  581952.62000 4196161.27000 1.8210410e-03   50.88   239.60     1.50  PERIOD  ALL       00043872
  581954.06000 4196156.99000 1.8978310e-03   50.89   239.60     1.50  PERIOD  ALL       00043872
  581955.50000 4196152.71000 1.9775520e-03   50.89   239.60     1.50  PERIOD  ALL       00043872
  581955.95000 4196144.00000 2.1240620e-03   50.74   239.60     1.50  PERIOD  ALL       00043872
  581954.95000 4196139.58000 2.1860990e-03   50.70   239.60     1.50  PERIOD  ALL       00043872
  581953.96000 4196135.15000 2.2471680e-03   50.73   239.60     1.50  PERIOD  ALL       00043872
  581949.78000 4196127.83000 2.3111050e-03   51.11   239.60     1.50  PERIOD  ALL       00043872
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581946.58000 4196124.94000 2.3147350e-03    51.39   239.60     1.50  PERIOD  ALL       00043872
581942.48000 4196117.99000 2.3723490e-03    51.56   239.60     1.50  PERIOD  ALL       00043872
581938.35000 4196110.51000 2.4387100e-03    51.47   239.60     1.50  PERIOD  ALL       00043872
581935.13000 4196107.11000 2.4459270e-03    51.69   239.60     1.50  PERIOD  ALL       00043872
581931.90000 4196103.70000 2.4509420e-03    51.97   239.60     1.50  PERIOD  ALL       00043872
581928.68000 4196100.29000 2.4564380e-03    52.17   239.60     1.50  PERIOD  ALL       00043872
581925.45000 4196096.88000 2.4551310e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581922.23000 4196093.48000 2.4454380e-03    53.01   239.60     1.50  PERIOD  ALL       00043872
581920.20000 4196094.73000 2.3940490e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581921.40000 4196099.40000 2.3445110e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581922.60000 4196104.06000 2.2915950e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581923.80000 4196108.72000 2.2401550e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581924.99000 4196113.38000 2.1878450e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581926.19000 4196118.05000 2.1359830e-03    53.46   239.60     1.50  PERIOD  ALL       00043872
581927.39000 4196122.71000 2.0885020e-03    53.31   239.60     1.50  PERIOD  ALL       00043872
581928.59000 4196127.37000 2.0365470e-03    53.22   239.60     1.50  PERIOD  ALL       00043872
581929.79000 4196132.04000 1.9799220e-03    53.34   239.60     1.50  PERIOD  ALL       00043872
581930.99000 4196136.70000 1.9215040e-03    53.41   239.60     1.50  PERIOD  ALL       00043872
581932.19000 4196141.36000 1.8712160e-03    53.36   239.60     1.50  PERIOD  ALL       00043872
581933.39000 4196146.03000 1.8188290e-03    53.27   239.60     1.50  PERIOD  ALL       00043872
581934.59000 4196150.69000 1.7694840e-03    53.04   239.60     1.50  PERIOD  ALL       00043872
581935.79000 4196155.35000 1.7343840e-03    52.75   239.60     1.50  PERIOD  ALL       00043872
581936.98000 4196160.01000 1.6823260e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581938.18000 4196164.68000 1.6299870e-03    52.65   239.60     1.50  PERIOD  ALL       00043872
581939.38000 4196169.34000 1.5797820e-03    52.55   239.60     1.50  PERIOD  ALL       00043872
581940.58000 4196174.00000 1.5318460e-03    52.36   239.60     1.50  PERIOD  ALL       00043872
581941.78000 4196178.67000 1.4854740e-03    52.12   239.60     1.50  PERIOD  ALL       00043872
581947.23000 4195600.07000 7.1703570e-04    52.07   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195619.11000 7.5675800e-04    49.42   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195615.12000 7.4004170e-04    49.69   198.92     1.50  PERIOD  ALL       00043872
582029.86000 4195628.63000 7.6297180e-04    48.73   198.92     1.50  PERIOD  ALL       00043872
582030.17000 4195545.08000 4.9947680e-04    48.40   198.92     1.50  PERIOD  ALL       00043872
581948.92000 4195544.31000 5.3973930e-04    52.82   198.92     1.50  PERIOD  ALL       00043872
581948.30000 4195553.07000 5.6197520e-04    53.14   198.92     1.50  PERIOD  ALL       00043872
581931.10000 4195560.75000 5.9474320e-04    53.84   198.92     1.50  PERIOD  ALL       00043872
581947.84000 4195596.69000 7.0394990e-04    52.28   198.92     1.50  PERIOD  ALL       00043872
581951.47000 4195601.80000 7.2046770e-04    51.82   198.92     1.50  PERIOD  ALL       00043872
581955.72000 4195603.53000 7.2408120e-04    51.53   198.92     1.50  PERIOD  ALL       00043872
581959.96000 4195605.26000 7.2754600e-04    51.29   198.92     1.50  PERIOD  ALL       00043872
581964.21000 4195606.99000 7.3101230e-04    51.06   198.92     1.50  PERIOD  ALL       00043872
581968.45000 4195608.72000 7.3446440e-04    50.85   198.92     1.50  PERIOD  ALL       00043872
581972.70000 4195610.46000 7.3796800e-04    50.64   198.92     1.50  PERIOD  ALL       00043872
581976.94000 4195612.19000 7.4167970e-04    50.38   198.92     1.50  PERIOD  ALL       00043872
581981.19000 4195613.92000 7.4542970e-04    50.12   198.92     1.50  PERIOD  ALL       00043872
581985.43000 4195615.65000 7.4929370e-04    49.85   198.92     1.50  PERIOD  ALL       00043872
581989.68000 4195617.38000 7.5323570e-04    49.58   198.92     1.50  PERIOD  ALL       00043872
581998.41000 4195616.81000 7.4333450e-04    49.47   198.92     1.50  PERIOD  ALL       00043872
582002.91000 4195618.50000 7.4628440e-04    49.29   198.92     1.50  PERIOD  ALL       00043872
582007.40000 4195620.19000 7.4908800e-04    49.16   198.92     1.50  PERIOD  ALL       00043872
582011.89000 4195621.88000 7.5200870e-04    49.01   198.92     1.50  PERIOD  ALL       00043872
582016.38000 4195623.56000 7.5487220e-04    48.88   198.92     1.50  PERIOD  ALL       00043872
582020.88000 4195625.25000 7.5763230e-04    48.79   198.92     1.50  PERIOD  ALL       00043872
582025.37000 4195626.94000 7.6031250e-04    48.75   198.92     1.50  PERIOD  ALL       00043872
582029.88000 4195623.71000 7.4281790e-04    48.77   198.92     1.50  PERIOD  ALL       00043872
582029.90000 4195618.80000 7.2335010e-04    48.81   198.92     1.50  PERIOD  ALL       00043872
582029.91000 4195613.89000 7.0455370e-04    48.84   198.92     1.50  PERIOD  ALL       00043872
582029.93000 4195608.97000 6.8635600e-04    48.86   198.92     1.50  PERIOD  ALL       00043872
582029.95000 4195604.06000 6.6845600e-04    48.98   198.92     1.50  PERIOD  ALL       00043872
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582393.47000 4196480.96000 2.6351570e-03    45.34    45.34     1.50  PERIOD  ALL       00043872
582387.74000 4196467.00000 2.9628680e-03    45.33    45.33     1.50  PERIOD  ALL       00043872
582421.89000 4196489.43000 2.7238660e-03    44.07    44.07     1.50  PERIOD  ALL       00043872
582424.63000 4196473.48000 3.1922790e-03    44.16    44.16     1.50  PERIOD  ALL       00043872
582437.84000 4196503.39000 2.5781170e-03    42.57    43.89     1.50  PERIOD  ALL       00043872
582445.32000 4196504.89000 2.6146120e-03    42.18    43.53     1.50  PERIOD  ALL       00043872
582443.07000 4196481.46000 3.1567660e-03    43.50    43.50     1.50  PERIOD  ALL       00043872
582450.30000 4196483.20000 3.1858210e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
582465.26000 4196500.90000 2.8815940e-03    42.12    42.12     1.50  PERIOD  ALL       00043872
582468.75000 4196486.19000 3.2972720e-03    42.28    42.28     1.50  PERIOD  ALL       00043872
582509.37000 4196522.58000 2.7939010e-03    38.62    38.62     1.50  PERIOD  ALL       00043872
582526.82000 4196521.59000 2.9478710e-03    38.60    38.60     1.50  PERIOD  ALL       00043872
582512.61000 4196503.89000 3.2321600e-03    39.04    39.04     1.50  PERIOD  ALL       00043872
582513.86000 4196494.92000 3.4847470e-03    39.11    39.11     1.50  PERIOD  ALL       00043872
582535.05000 4196503.64000 3.4321330e-03    38.60    38.60     1.50  PERIOD  ALL       00043872
582535.05000 4196495.17000 3.6723220e-03    38.62    38.62     1.50  PERIOD  ALL       00043872
582519.84000 4196476.47000 4.2023440e-03    38.85    49.84     1.50  PERIOD  ALL       00043872
582540.78000 4196477.22000 4.3880350e-03    38.79    49.84     1.50  PERIOD  ALL       00043872
582580.75000 4196518.21000 3.3946910e-03    36.98    36.98     1.50  PERIOD  ALL       00043872
582597.50000 4196518.93000 3.5214840e-03    36.97    36.97     1.50  PERIOD  ALL       00043872
582576.07000 4196499.48000 3.8704420e-03    36.72    36.72     1.50  PERIOD  ALL       00043872
582575.71000 4196493.00000 4.0710740e-03    36.67    36.67     1.50  PERIOD  ALL       00043872
582599.12000 4196500.02000 4.1041150e-03    37.22    37.22     1.50  PERIOD  ALL       00043872
582599.84000 4196490.84000 4.4152440e-03    37.24    37.24     1.50  PERIOD  ALL       00043872
582574.99000 4196473.73000 4.8161820e-03    36.97    49.84     1.50  PERIOD  ALL       00043872
582591.74000 4196474.27000 4.9467700e-03    36.99    36.99     1.50  PERIOD  ALL       00043872
582344.44000 4196558.03000 1.3007470e-03    40.16    44.94     1.50  PERIOD  ALL       00043872
582344.73000 4196572.40000 1.2037930e-03    40.12    40.12     1.50  PERIOD  ALL       00043872
582343.56000 4196589.70000 1.0959370e-03    39.87    39.87     1.50  PERIOD  ALL       00043872
582363.21000 4196570.64000 1.2958200e-03    40.35    40.35     1.50  PERIOD  ALL       00043872
582371.13000 4196570.64000 1.3320940e-03    40.38    40.38     1.50  PERIOD  ALL       00043872
582363.79000 4196593.81000 1.1488320e-03    39.52    39.52     1.50  PERIOD  ALL       00043872
582372.01000 4196593.22000 1.1856840e-03    39.63    39.63     1.50  PERIOD  ALL       00043872
582388.43000 4196597.04000 1.2326950e-03    40.07    40.07     1.50  PERIOD  ALL       00043872
582390.19000 4196586.18000 1.3108350e-03    40.18    40.18     1.50  PERIOD  ALL       00043872
582389.31000 4196575.04000 1.3858800e-03    40.28    43.25     1.50  PERIOD  ALL       00043872
582427.14000 4196577.97000 1.5562430e-03    40.69    40.69     1.50  PERIOD  ALL       00043872
582443.27000 4196577.39000 1.6473630e-03    40.69    40.69     1.50  PERIOD  ALL       00043872
582425.09000 4196560.96000 1.6975940e-03    40.71    40.71     1.50  PERIOD  ALL       00043872
582427.14000 4196552.46000 1.7953740e-03    40.73    43.10     1.50  PERIOD  ALL       00043872
582444.44000 4196555.39000 1.8701080e-03    40.47    40.47     1.50  PERIOD  ALL       00043872
582453.24000 4196556.27000 1.9145340e-03    40.32    40.32     1.50  PERIOD  ALL       00043872
582489.33000 4196555.69000 2.1365500e-03    38.28    38.28     1.50  PERIOD  ALL       00043872
582484.65000 4196569.19000 1.9502090e-03    38.39    38.39     1.50  PERIOD  ALL       00043872
582496.71000 4196570.63000 2.0027370e-03    38.32    38.32     1.50  PERIOD  ALL       00043872
582506.98000 4196569.91000 2.0685160e-03    38.27    38.27     1.50  PERIOD  ALL       00043872
582518.87000 4196567.93000 2.1579650e-03    38.19    38.19     1.50  PERIOD  ALL       00043872
582516.53000 4196556.41000 2.2938120e-03    38.13    38.13     1.50  PERIOD  ALL       00043872
582535.80000 4196557.31000 2.3844750e-03    36.96    36.96     1.50  PERIOD  ALL       00043872
582530.57000 4196570.27000 2.1862670e-03    37.33    37.33     1.50  PERIOD  ALL       00043872
582543.72000 4196571.36000 2.2373100e-03    36.99    36.99     1.50  PERIOD  ALL       00043872
582556.87000 4196572.08000 2.2907030e-03    36.92    36.92     1.50  PERIOD  ALL       00043872
582567.32000 4196570.09000 2.3647030e-03    36.90    36.90     1.50  PERIOD  ALL       00043872
582561.19000 4196558.21000 2.5051280e-03    36.82    36.82     1.50  PERIOD  ALL       00043872
582581.90000 4196569.91000 2.4246820e-03    36.14    36.14     1.50  PERIOD  ALL       00043872
582593.43000 4196571.17000 2.4517830e-03    36.01    36.01     1.50  PERIOD  ALL       00043872
582604.60000 4196569.19000 2.5225400e-03    36.03    36.03     1.50  PERIOD  ALL       00043872
582616.48000 4196567.75000 2.5869550e-03    35.92    35.92     1.50  PERIOD  ALL       00043872
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582579.92000 4196557.49000 2.6006340e-03    36.12    36.12     1.50  PERIOD  ALL       00043872
582607.30000 4196553.88000 2.7840960e-03    35.89    35.89     1.50  PERIOD  ALL       00043872
582667.79000 4196561.35000 2.7751590e-03    35.94    35.94     1.50  PERIOD  ALL       00043872
582689.19000 4196564.74000 2.6731200e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582712.92000 4196566.64000 2.5849200e-03    34.67    34.67     1.50  PERIOD  ALL       00043872
582690.04000 4196544.61000 2.9975010e-03    35.37    35.37     1.50  PERIOD  ALL       00043872
582665.67000 4196523.63000 3.6153130e-03    35.90    35.90     1.50  PERIOD  ALL       00043872
582691.10000 4196523.84000 3.3773070e-03    35.11    35.11     1.50  PERIOD  ALL       00043872
582709.53000 4196522.78000 3.2740910e-03    34.79    34.79     1.50  PERIOD  ALL       00043872
582731.36000 4196522.14000 3.1566350e-03    34.77    34.77     1.50  PERIOD  ALL       00043872
582750.64000 4196522.99000 3.0362730e-03    34.90    34.90     1.50  PERIOD  ALL       00043872
582771.20000 4196517.06000 3.0105220e-03    35.50    35.50     1.50  PERIOD  ALL       00043872
582691.10000 4196507.95000 3.6980880e-03    34.83    34.83     1.50  PERIOD  ALL       00043872
582688.98000 4196578.72000 2.4773410e-03    34.60    34.60     1.50  PERIOD  ALL       00043872
582749.57000 4196499.70000 3.4173140e-03    35.30    35.30     1.50  PERIOD  ALL       00043872
582750.42000 4196479.14000 3.7786720e-03    35.09    35.09     1.50  PERIOD  ALL       00043872
582731.99000 4196470.67000 4.1149500e-03    34.73    34.73     1.50  PERIOD  ALL       00043872
582713.97000 4196470.46000 4.3010180e-03    34.72    34.72     1.50  PERIOD  ALL       00043872
582691.72000 4196480.20000 4.3114170e-03    34.84    34.84     1.50  PERIOD  ALL       00043872
582691.33000 4196465.17000 4.6993740e-03    35.14    35.14     1.50  PERIOD  ALL       00043872
582655.76000 4196468.88000 5.2074420e-03    35.81    35.81     1.50  PERIOD  ALL       00043872
582673.94000 4196469.17000 4.8475640e-03    35.72    35.72     1.50  PERIOD  ALL       00043872
582658.37000 4196433.11000 6.3056740e-03    35.85    35.85     1.50  PERIOD  ALL       00043872
582674.90000 4196431.73000 5.9969990e-03    35.74    35.74     1.50  PERIOD  ALL       00043872
582692.82000 4196431.12000 5.6847830e-03    35.09    35.09     1.50  PERIOD  ALL       00043872
582745.49000 4196432.65000 4.8546000e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582724.20000 4196430.51000 5.2103550e-03    34.70    34.70     1.50  PERIOD  ALL       00043872
582726.81000 4196408.31000 5.8499900e-03    34.78    34.78     1.50  PERIOD  ALL       00043872
582739.21000 4196387.87000 6.2860130e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582714.01000 4196386.96000 6.9008380e-03    34.77    34.77     1.50  PERIOD  ALL       00043872
582693.47000 4196394.35000 7.0823510e-03    34.93    40.93     1.50  PERIOD  ALL       00043872
582668.79000 4196377.78000 8.6894450e-03    35.88    51.10     1.50  PERIOD  ALL       00043872
582690.59000 4196381.02000 7.7945710e-03    35.06    51.03     1.50  PERIOD  ALL       00043872
582691.61000 4196446.71000 5.2211790e-03    35.43    35.43     1.50  PERIOD  ALL       00043872
582693.64000 4196419.51000 6.0687840e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582681.46000 4196345.62000 1.0407050e-02    35.85    51.10     1.50  PERIOD  ALL       00043872
582694.86000 4196362.26000 8.6912250e-03    35.33    51.10     1.50  PERIOD  ALL       00043872
582695.26000 4196343.18000 9.8488330e-03    35.12    51.10     1.50  PERIOD  ALL       00043872
582730.59000 4196341.96000 8.4095960e-03    34.92    44.98     1.50  PERIOD  ALL       00043872
582712.72000 4196340.75000 9.1937330e-03    34.80    51.10     1.50  PERIOD  ALL       00043872
582694.86000 4196326.94000 1.1069900e-02    35.31    51.10     1.50  PERIOD  ALL       00043872
582844.74000 4196481.31000 2.9987740e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582893.93000 4196475.37000 2.7200140e-03    35.63    35.63     1.50  PERIOD  ALL       00043872
582962.53000 4196348.78000 3.2224870e-03    36.21    36.21     1.50  PERIOD  ALL       00043872
582984.06000 4196390.20000 2.6879690e-03    35.72    35.72     1.50  PERIOD  ALL       00043872
582990.96000 4196440.96000 2.3155080e-03    35.40    35.40     1.50  PERIOD  ALL       00043872
582948.13000 4196291.48000 3.9932950e-03    36.62    36.62     1.50  PERIOD  ALL       00043872
583008.88000 4195915.35000 3.3574630e-03    38.44    38.44     1.50  PERIOD  ALL       00043872
582977.17000 4195892.70000 3.3073860e-03    38.24    38.24     1.50  PERIOD  ALL       00043872
583020.23000 4195884.58000 2.9660330e-03    38.25    38.25     1.50  PERIOD  ALL       00043872
582962.96000 4195845.99000 2.7586950e-03    38.54    38.54     1.50  PERIOD  ALL       00043872
582931.68000 4195832.99000 2.6576210e-03    38.07    38.16     1.50  PERIOD  ALL       00043872
582904.67000 4195758.12000 1.7206190e-03    38.69    38.69     1.50  PERIOD  ALL       00043872
582929.36000 4195775.08000 1.9191170e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
582955.30000 4195782.31000 1.9979400e-03    38.82    38.82     1.50  PERIOD  ALL       00043872
582975.76000 4195804.26000 2.2241920e-03    38.64    38.64     1.50  PERIOD  ALL       00043872
581974.48000 4196230.19000 1.1392650e-03    49.44   239.60     1.50  PERIOD  ALL       00043872
582000.84000 4196240.46000 1.1852130e-03    48.02   239.60     1.50  PERIOD  ALL       00043872
581989.04000 4196219.92000 1.3256490e-03    48.96   239.60     1.50  PERIOD  ALL       00043872
581875.50000 4196239.39000 7.4048310e-04    50.50   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196330.59000 4.0988230e-04    50.54   239.60     1.50  PERIOD  ALL       00043872
581868.94000 4196334.74000 4.1421640e-04    49.83   239.60     1.50  PERIOD  ALL       00043872
581881.72000 4196337.50000 4.2627800e-04    48.90   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196297.43000 4.9197300e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581828.45000 4196325.17000 3.8525560e-04    51.70   239.60     1.50  PERIOD  ALL       00043872
581839.13000 4196330.64000 3.8616500e-04    51.27   239.60     1.50  PERIOD  ALL       00043872
581848.13000 4196290.25000 4.9484450e-04    50.57   239.60     1.50  PERIOD  ALL       00043872
581843.73000 4196366.54000 3.2961210e-04    50.95   239.60     1.50  PERIOD  ALL       00043872
581855.07000 4196368.89000 3.3727450e-04    50.44   239.60     1.50  PERIOD  ALL       00043872
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581866.14000 4196373.32000 3.4208400e-04    49.96   239.60     1.50  PERIOD  ALL       00043872
581849.14000 4196393.05000 2.9909360e-04    50.43   239.60     1.50  PERIOD  ALL       00043872
581862.79000 4196398.11000 3.0531640e-04    49.88   239.60     1.50  PERIOD  ALL       00043872
581918.46000 4196386.85000 3.8254050e-04    48.65   239.60     1.50  PERIOD  ALL       00043872
581902.26000 4196417.16000 3.2076630e-04    49.41   239.60     1.50  PERIOD  ALL       00043872
581910.45000 4196402.67000 3.4881630e-04    49.10   239.60     1.50  PERIOD  ALL       00043872
581895.74000 4196442.96000 2.8691300e-04    49.52   239.60     1.50  PERIOD  ALL       00043872
581885.31000 4196457.98000 2.6440850e-04    49.75   239.60     1.50  PERIOD  ALL       00043872
581928.85000 4196461.51000 3.0330010e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581844.07000 4196437.28000 2.4842340e-04    50.76   239.60     1.50  PERIOD  ALL       00043872
581879.44000 4196475.56000 2.4716450e-04    49.84   239.60     1.50  PERIOD  ALL       00043872
581873.88000 4196494.74000 2.3212480e-04    49.73   239.60     1.50  PERIOD  ALL       00043872
581910.07000 4196515.59000 2.5168840e-04    49.43   239.60     1.50  PERIOD  ALL       00043872
581912.06000 4196492.75000 2.6480780e-04    49.71   239.60     1.50  PERIOD  ALL       00043872
581885.94000 4196504.72000 2.3656020e-04    49.55   239.60     1.50  PERIOD  ALL       00043872
581916.78000 4196518.43000 2.5647670e-04    49.40   239.60     1.50  PERIOD  ALL       00043872
581931.94000 4196530.87000 2.6570520e-04    49.22   239.60     1.50  PERIOD  ALL       00043872
581951.60000 4196541.15000 2.8219190e-04    48.80   239.60     1.50  PERIOD  ALL       00043872
581965.85000 4196564.96000 2.8886310e-04    48.25   239.60     1.50  PERIOD  ALL       00043872
581878.20000 4196549.30000 2.1470430e-04    49.25   239.60     1.50  PERIOD  ALL       00043872
581894.45000 4196559.42000 2.2422230e-04    48.97   239.60     1.50  PERIOD  ALL       00043872
581912.85000 4196572.30000 2.3603690e-04    48.61   239.60     1.50  PERIOD  ALL       00043872
581932.02000 4196584.57000 2.4985280e-04    48.24   239.60     1.50  PERIOD  ALL       00043872
581955.28000 4196590.58000 2.6922490e-04    47.86   239.60     1.50  PERIOD  ALL       00043872
581974.26000 4196604.31000 2.8257030e-04    47.34   239.60     1.50  PERIOD  ALL       00043872
581960.52000 4196631.52000 2.6183820e-04    45.94   239.60     1.50  PERIOD  ALL       00043872
581946.79000 4196621.04000 2.5347190e-04    46.17   239.60     1.50  PERIOD  ALL       00043872
581926.07000 4196607.05000 2.3972380e-04    46.78   239.60     1.50  PERIOD  ALL       00043872
581953.78000 4196662.48000 2.4780380e-04    45.14   239.60     1.50  PERIOD  ALL       00043872
581944.04000 4196677.71000 2.3707140e-04    45.37   239.60     1.50  PERIOD  ALL       00043872
581935.31000 4196689.20000 2.2865050e-04    45.59   239.60     1.50  PERIOD  ALL       00043872
581914.58000 4196649.50000 2.2253880e-04    46.35   239.60     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on A - Non-Residential on B,C,D,E - Off-Site Preschools

HARP Project Summary Report 12/6/2022 12:23:31 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC2_PS
Project Output Directory: C:\HARP2\PROJECTS\TWC2_PS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
YGNO	0	0	9901	DieselExhPM	1	1.06	0.0002	1
SITE_E	0	0	9901	DieselExhPM	1	9.68	0.0023	1
SITE_D	0	0	9901	DieselExhPM	1	16.77	0.004	1
SITE_C	0	0	9901	DieselExhPM	1	46.39	0.0111	1
SITE_B	0	0	9901	DieselExhPM	1	16.53	0.004	1
SITE_A	0	0	9901	DieselExhPM	1	48.29	0.0116	1
PARK	0	0	9901	DieselExhPM	1	0.79	0.0002	1
MAIN	0	0	9901	DieselExhPM	1	1.32	0.0003	1
CIVIC	0	0	9901	DieselExhPM	1	1.06	0.0002	1
BDWY	0	0	9901	DieselExhPM	1	1.03	0.0002	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/6/2022 12:22:26 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
*********************************
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

*********************************
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 3
Total Exposure Duration: 2

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

*********************************
PATHWAYS ENABLED

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

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

*********************************
INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

*********************************
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC2_PS\hra\TWC2_PS_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC2_PS\hra\TWC2_PS_CANCER_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 12:23:18 PM
RISK SCENARIO: NCChronic

LINE	REC	TYPE	X	Y	CANCER RISK
1	1	ALL	581887	4195456	2.4458000e-08
2	10	ALL	581896	4195456	2.4443000e-08
3	9	ALL	581892	4195456	2.4360000e-08
4	11	ALL	581901	4195456	2.4319000e-08
5	12	ALL	581905	4195456	2.4197000e-08
6	2	ALL	581910	4195456	2.4071000e-08
7	85	ALL	581885	4195451	2.4054000e-08
8	13	ALL	581914	4195456	2.3901000e-08
9	14	ALL	581919	4195455	2.3731000e-08
10	84	ALL	581883	4195447	2.3664000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 12:22:57 PM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	1	ALL	581887	4195456	8.5745000e-05
2	10	ALL	581896	4195456	8.5690000e-05
3	9	ALL	581892	4195456	8.5401000e-05
4	11	ALL	581901	4195456	8.5257000e-05
5	12	ALL	581905	4195456	8.4827000e-05
6	2	ALL	581910	4195456	8.4387000e-05
7	85	ALL	581885	4195451	8.4328000e-05
8	13	ALL	581914	4195456	8.3792000e-05
9	14	ALL	581919	4195455	8.3196000e-05
10	84	ALL	581883	4195447	8.2959000e-05

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        12:22:15
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF    85 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y      AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE     GRP      NUM HRS   NET ID
* ______________ _____________ _____________ _______ _______ _______ _______ ________ _________ ________
  581887.28000 4195455.65000 4.2872250e-04   53.15   198.92     1.50  PERIOD  ALL       00043872
  581909.72000 4195456.02000 4.2193740e-04   52.26   198.92     1.50  PERIOD  ALL       00043872
  581923.66000 4195455.11000 4.1308080e-04   51.85   198.92     1.50  PERIOD  ALL       00043872
  581964.73000 4195436.83000 3.6421760e-04   50.37   198.92     1.50  PERIOD  ALL       00043872
  581990.43000 4195436.29000 3.5192690e-04   50.38   198.92     1.50  PERIOD  ALL       00043872
  581990.25000 4195361.56000 2.5674980e-04   54.41   198.92     1.50  PERIOD  ALL       00043872
  581873.17000 4195364.27000 2.9892170e-04   53.75   198.92     1.50  PERIOD  ALL       00043872
  581851.63000 4195376.03000 3.2294890e-04   53.50   198.92     1.50  PERIOD  ALL       00043872
  581891.77000 4195455.72000 4.2700400e-04   52.92   198.92     1.50  PERIOD  ALL       00043872
  581896.26000 4195455.80000 4.2845190e-04   52.72   198.92     1.50  PERIOD  ALL       00043872
  581900.74000 4195455.87000 4.2628550e-04   52.56   198.92     1.50  PERIOD  ALL       00043872
  581905.23000 4195455.95000 4.2413700e-04   52.41   198.92     1.50  PERIOD  ALL       00043872
  581914.37000 4195455.72000 4.1896170e-04   52.14   198.92     1.50  PERIOD  ALL       00043872
  581919.01000 4195455.41000 4.1597890e-04   52.02   198.92     1.50  PERIOD  ALL       00043872
  581928.22000 4195453.08000 4.0723100e-04   51.69   198.92     1.50  PERIOD  ALL       00043872
  581932.79000 4195451.05000 4.0142130e-04   51.54   198.92     1.50  PERIOD  ALL       00043872
  581937.35000 4195449.02000 3.9573870e-04   51.40   198.92     1.50  PERIOD  ALL       00043872
  581941.91000 4195446.99000 3.9014920e-04   51.24   198.92     1.50  PERIOD  ALL       00043872
  581946.48000 4195444.95000 3.8470890e-04   51.07   198.92     1.50  PERIOD  ALL       00043872
  581951.04000 4195442.92000 3.7940780e-04   50.89   198.92     1.50  PERIOD  ALL       00043872
  581955.60000 4195440.89000 3.7422140e-04   50.71   198.92     1.50  PERIOD  ALL       00043872
  581960.17000 4195438.86000 3.6922170e-04   50.51   198.92     1.50  PERIOD  ALL       00043872
  581969.01000 4195436.74000 3.6224180e-04   50.29   198.92     1.50  PERIOD  ALL       00043872
  581973.30000 4195436.65000 3.6018480e-04   50.27   198.92     1.50  PERIOD  ALL       00043872
  581977.58000 4195436.56000 3.5811210e-04   50.27   198.92     1.50  PERIOD  ALL       00043872
  581981.86000 4195436.47000 3.5605830e-04   50.29   198.92     1.50  PERIOD  ALL       00043872
  581986.15000 4195436.38000 3.5399490e-04   50.33   198.92     1.50  PERIOD  ALL       00043872
  581990.42000 4195431.31000 3.4479570e-04   50.51   198.92     1.50  PERIOD  ALL       00043872
  581990.41000 4195426.33000 3.3764770e-04   50.76   198.92     1.50  PERIOD  ALL       00043872
  581990.39000 4195421.34000 3.3061970e-04   51.06   198.92     1.50  PERIOD  ALL       00043872
  581990.38000 4195416.36000 3.2356510e-04   51.53   198.92     1.50  PERIOD  ALL       00043872
  581990.37000 4195411.38000 3.1674550e-04   51.99   198.92     1.50  PERIOD  ALL       00043872
  581990.36000 4195406.40000 3.1023180e-04   52.40   198.92     1.50  PERIOD  ALL       00043872
  581990.35000 4195401.42000 3.0397530e-04   52.78   198.92     1.50  PERIOD  ALL       00043872
  581990.33000 4195396.43000 2.9800050e-04   52.96   198.92     1.50  PERIOD  ALL       00043872
  581990.32000 4195391.45000 2.9242770e-04   53.13   198.92     1.50  PERIOD  ALL       00043872
  581990.31000 4195386.47000 2.8722700e-04   53.16   198.92     1.50  PERIOD  ALL       00043872
  581990.30000 4195381.49000 2.8215760e-04   53.19   198.92     1.50  PERIOD  ALL       00043872
  581990.29000 4195376.51000 2.7711360e-04   53.31   198.92     1.50  PERIOD  ALL       00043872
  581990.27000 4195371.52000 2.6837400e-04   53.44   198.92     1.50  PERIOD  ALL       00043872
  581990.26000 4195366.54000 2.6295830e-04   53.91   198.92     1.50  PERIOD  ALL       00043872
  581985.37000 4195361.67000 2.5672030e-04   54.91   198.92     1.50  PERIOD  ALL       00043872
  581980.49000 4195361.79000 2.5747360e-04   55.04   198.92     1.50  PERIOD  ALL       00043872
  581975.61000 4195361.90000 2.5849430e-04   55.06   198.92     1.50  PERIOD  ALL       00043872
  581970.74000 4195362.01000 2.5984640e-04   54.95   198.92     1.50  PERIOD  ALL       00043872
  581965.86000 4195362.13000 2.6142770e-04   54.77   198.92     1.50  PERIOD  ALL       00043872
  581960.98000 4195362.24000 2.6317930e-04   54.54   198.92     1.50  PERIOD  ALL       00043872
  581956.10000 4195362.35000 2.6497510e-04   54.33   198.92     1.50  PERIOD  ALL       00043872
  581951.22000 4195362.46000 2.6680650e-04   54.14   198.92     1.50  PERIOD  ALL       00043872
  581946.34000 4195362.58000 2.6858790e-04   54.00   198.92     1.50  PERIOD  ALL       00043872
  581941.47000 4195362.69000 2.7216930e-04   53.90   198.92     1.50  PERIOD  ALL       00043872
  581936.59000 4195362.80000 2.7393220e-04   53.84   198.92     1.50  PERIOD  ALL       00043872
  581931.71000 4195362.92000 2.7583360e-04   53.74   198.92     1.50  PERIOD  ALL       00043872
  581926.83000 4195363.03000 2.7774500e-04   53.65   198.92     1.50  PERIOD  ALL       00043872
  581921.95000 4195363.14000 2.7962700e-04   53.60   198.92     1.50  PERIOD  ALL       00043872
  581917.07000 4195363.25000 2.8143520e-04   53.60   198.92     1.50  PERIOD  ALL       00043872
  581912.20000 4195363.37000 2.8320340e-04   53.64   198.92     1.50  PERIOD  ALL       00043872
  581907.32000 4195363.48000 2.8501910e-04   53.67   198.92     1.50  PERIOD  ALL       00043872
  581902.44000 4195363.59000 2.8688720e-04   53.70   198.92     1.50  PERIOD  ALL       00043872
  581897.56000 4195363.71000 2.8883220e-04   53.70   198.92     1.50  PERIOD  ALL       00043872
  581892.68000 4195363.82000 2.9081700e-04   53.70   198.92     1.50  PERIOD  ALL       00043872
  581887.81000 4195363.93000 2.9281400e-04   53.71   198.92     1.50  PERIOD  ALL       00043872
  581882.93000 4195364.04000 2.9485380e-04   53.71   198.92     1.50  PERIOD  ALL       00043872
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581878.05000 4195364.16000 2.9693380e-04    53.71   198.92     1.50  PERIOD  ALL       00043872
581868.86000 4195366.62000 3.0375520e-04    53.60   198.92     1.50  PERIOD  ALL       00043872
581864.55000 4195368.97000 3.0869460e-04    53.43   198.92     1.50  PERIOD  ALL       00043872
581860.25000 4195371.33000 3.1550320e-04    53.32   198.92     1.50  PERIOD  ALL       00043872
581855.94000 4195373.68000 3.2003890e-04    53.31   198.92     1.50  PERIOD  ALL       00043872
581853.61000 4195380.45000 3.2947580e-04    53.26   198.92     1.50  PERIOD  ALL       00043872
581855.59000 4195384.88000 3.3428410e-04    53.31   198.92     1.50  PERIOD  ALL       00043872
581857.57000 4195389.30000 3.3918070e-04    53.36   198.92     1.50  PERIOD  ALL       00043872
581859.55000 4195393.72000 3.4327420e-04    53.39   198.92     1.50  PERIOD  ALL       00043872
581861.53000 4195398.15000 3.4945480e-04    53.37   198.92     1.50  PERIOD  ALL       00043872
581863.51000 4195402.57000 3.5394300e-04    53.41   198.92     1.50  PERIOD  ALL       00043872
581865.49000 4195406.99000 3.5938750e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
581867.47000 4195411.42000 3.6509740e-04    53.43   198.92     1.50  PERIOD  ALL       00043872
581869.45000 4195415.84000 3.7091480e-04    53.40   198.92     1.50  PERIOD  ALL       00043872
581871.44000 4195420.26000 3.7669520e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
581873.42000 4195424.69000 3.8241480e-04    53.60   198.92     1.50  PERIOD  ALL       00043872
581875.40000 4195429.11000 3.8836830e-04    53.69   198.92     1.50  PERIOD  ALL       00043872
581877.38000 4195433.53000 3.9469200e-04    53.67   198.92     1.50  PERIOD  ALL       00043872
581879.36000 4195437.96000 4.0120290e-04    53.64   198.92     1.50  PERIOD  ALL       00043872
581881.34000 4195442.38000 4.0782460e-04    53.61   198.92     1.50  PERIOD  ALL       00043872
581883.32000 4195446.80000 4.1479280e-04    53.49   198.92     1.50  PERIOD  ALL       00043872
581885.30000 4195451.23000 4.2164100e-04    53.24   198.92     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on A - Non-Residential on B,C,D,E - Off-Site Elementary School

HARP Project Summary Report 12/6/2022 12:18:38 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC2_ES
Project Output Directory: C:\HARP2\PROJECTS\TWC2_ES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	0	0	9901	DieselExhPM	1	46.39	0	1
SITE_B	0	0	9901	DieselExhPM	1	29.44	0	1
SITE_C	0	0	9901	DieselExhPM	1	14.72	0	1
SITE_D	0	0	9901	DieselExhPM	1	29.86	0	1
SITE_E	0	0	9901	DieselExhPM	1	17.24	0	1
BDWY	0	0	9901	DieselExhPM	1	1.06	0	1
MAIN	0	0	9901	DieselExhPM	1	1.32	0	1
CIVIC	0	0	9901	DieselExhPM	1	1.06	0	1
YGNO	0	0	9901	DieselExhPM	1	1.06	0	1
PARK	0	0	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/6/2022 12:17:23 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 5
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC2_ES\hra\TWC2_ES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC2_ES\hra\TWC2_ES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 12:17:54 PM
RISK SCENARIO: NCChronic

LINE	REC	TYPE	X	Y	CANCER RISK
1	158	ALL	582789	4196170	7.1510000e-07
2	383	ALL	582788	4196175	7.1314000e-07
3	384	ALL	582787	4196180	7.1056000e-07
4	385	ALL	582786	4196184	7.0729000e-07
5	386	ALL	582786	4196189	7.0337000e-07
6	387	ALL	582785	4196193	6.9886000e-07
7	388	ALL	582784	4196198	6.9391000e-07
8	382	ALL	582794	4196172	6.9012000e-07
9	389	ALL	582783	4196203	6.8845000e-07
10	390	ALL	582782	4196207	6.8268000e-07

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 12:18:16 PM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	158	ALL	582789	4196170	2.5070000e-03
2	383	ALL	582788	4196175	2.5001000e-03
3	384	ALL	582787	4196180	2.4911000e-03
4	385	ALL	582786	4196184	2.4796000e-03
5	386	ALL	582786	4196189	2.4658000e-03
6	387	ALL	582785	4196193	2.4500000e-03
7	388	ALL	582784	4196198	2.4327000e-03
8	382	ALL	582794	4196172	2.4194000e-03
9	389	ALL	582783	4196203	2.4135000e-03
10	390	ALL	582782	4196207	2.3933000e-03

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        12:17:13
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   643 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581750.36000 4196740.84000 1.2976690e-04   43.45   239.60     1.50  PERIOD  ALL       00043872
  581809.53000 4196562.92000 1.7119740e-04   48.69   239.60     1.50  PERIOD  ALL       00043872
  581675.28000 4196500.08000 1.4665070e-04   47.89   239.60     1.50  PERIOD  ALL       00043872
  581622.23000 4196652.29000 9.9566670e-05   46.83   239.60     1.50  PERIOD  ALL       00043872
  581627.95000 4196675.14000 9.8025210e-05   48.00   239.60     1.50  PERIOD  ALL       00043872
  581618.56000 4196709.01000 9.3451770e-05   47.70   239.60     1.50  PERIOD  ALL       00043872
  581751.92000 4196736.16000 1.3046780e-04   43.63   239.60     1.50  PERIOD  ALL       00043872
  581753.47000 4196731.48000 1.3117310e-04   43.82   239.60     1.50  PERIOD  ALL       00043872
  581755.03000 4196726.79000 1.3187320e-04   43.92   239.60     1.50  PERIOD  ALL       00043872
  581756.59000 4196722.11000 1.3259190e-04   43.96   239.60     1.50  PERIOD  ALL       00043872
  581758.15000 4196717.43000 1.3332890e-04   43.99   239.60     1.50  PERIOD  ALL       00043872
  581759.70000 4196712.75000 1.3407050e-04   44.05   239.60     1.50  PERIOD  ALL       00043872
  581761.26000 4196708.07000 1.3483680e-04   44.22   239.60     1.50  PERIOD  ALL       00043872
  581762.82000 4196703.38000 1.3562700e-04   44.31   239.60     1.50  PERIOD  ALL       00043872
  581764.37000 4196698.70000 1.3642610e-04   44.38   239.60     1.50  PERIOD  ALL       00043872
  581765.93000 4196694.02000 1.3724470e-04   44.42   239.60     1.50  PERIOD  ALL       00043872
  581767.49000 4196689.34000 1.3808420e-04   44.56   239.60     1.50  PERIOD  ALL       00043872
  581769.05000 4196684.66000 1.3894090e-04   44.73   239.60     1.50  PERIOD  ALL       00043872
  581770.60000 4196679.97000 1.3981600e-04   44.85   239.60     1.50  PERIOD  ALL       00043872
  581773.72000 4196670.61000 1.4163960e-04   44.98   239.60     1.50  PERIOD  ALL       00043872
  581775.27000 4196665.93000 1.4258220e-04   45.11   239.60     1.50  PERIOD  ALL       00043872
  581776.83000 4196661.24000 1.4355130e-04   45.30   239.60     1.50  PERIOD  ALL       00043872
  581778.39000 4196656.56000 1.4454690e-04   45.44   239.60     1.50  PERIOD  ALL       00043872
  581779.94000 4196651.88000 1.4555980e-04   45.50   239.60     1.50  PERIOD  ALL       00043872
  581781.50000 4196647.20000 1.4661460e-04   45.59   239.60     1.50  PERIOD  ALL       00043872
  581783.06000 4196642.52000 1.4768980e-04   45.73   239.60     1.50  PERIOD  ALL       00043872
  581784.62000 4196637.83000 1.4877390e-04   45.94   239.60     1.50  PERIOD  ALL       00043872
  581786.17000 4196633.15000 1.4989680e-04   46.17   239.60     1.50  PERIOD  ALL       00043872
  581789.29000 4196623.79000 1.5226010e-04   46.39   239.60     1.50  PERIOD  ALL       00043872
  581790.84000 4196619.11000 1.5349300e-04   46.49   239.60     1.50  PERIOD  ALL       00043872
  581792.40000 4196614.42000 1.5474090e-04   46.66   239.60     1.50  PERIOD  ALL       00043872
  581793.96000 4196609.74000 1.5605060e-04   46.81   239.60     1.50  PERIOD  ALL       00043872
  581795.52000 4196605.06000 1.5738980e-04   46.94   239.60     1.50  PERIOD  ALL       00043872
  581797.07000 4196600.38000 1.5878290e-04   47.06   239.60     1.50  PERIOD  ALL       00043872
  581798.63000 4196595.70000 1.6021920e-04   47.15   239.60     1.50  PERIOD  ALL       00043872
  581800.19000 4196591.01000 1.6169810e-04   47.26   239.60     1.50  PERIOD  ALL       00043872
  581801.74000 4196586.33000 1.6323970e-04   47.31   239.60     1.50  PERIOD  ALL       00043872
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581961.46000 4195361.46000 2.4735700e-04    54.65   198.92     1.50  PERIOD  ALL       00043872
581965.94000 4195361.41000 2.4613130e-04    54.86   198.92     1.50  PERIOD  ALL       00043872
581970.41000 4195361.36000 2.4505460e-04    55.02   198.92     1.50  PERIOD  ALL       00043872
581974.88000 4195361.30000 2.4410040e-04    55.13   198.92     1.50  PERIOD  ALL       00043872
581979.35000 4195361.25000 2.4338060e-04    55.13   198.92     1.50  PERIOD  ALL       00043872
581983.83000 4195361.20000 2.4281310e-04    55.06   198.92     1.50  PERIOD  ALL       00043872
581988.35000 4195356.23000 2.3879930e-04    54.90   198.92     1.50  PERIOD  ALL       00043872
581988.41000 4195351.30000 2.3493750e-04    55.13   198.92     1.50  PERIOD  ALL       00043872
581988.46000 4195346.38000 2.3139260e-04    55.22   198.92     1.50  PERIOD  ALL       00043872
581988.52000 4195341.46000 2.2796810e-04    55.29   198.92     1.50  PERIOD  ALL       00043872
581988.57000 4195336.54000 2.2462720e-04    55.37   198.92     1.50  PERIOD  ALL       00043872
581988.62000 4195331.61000 2.2135810e-04    55.45   198.92     1.50  PERIOD  ALL       00043872
581988.68000 4195326.69000 2.1821100e-04    55.51   198.92     1.50  PERIOD  ALL       00043872
581988.73000 4195321.77000 2.1515580e-04    55.56   198.92     1.50  PERIOD  ALL       00043872
581988.79000 4195316.84000 2.1219800e-04    55.58   198.92     1.50  PERIOD  ALL       00043872
581984.19000 4195312.02000 2.0951500e-04    55.80   198.92     1.50  PERIOD  ALL       00043872
581979.55000 4195312.12000 2.0987490e-04    55.85   198.92     1.50  PERIOD  ALL       00043872
581974.90000 4195312.22000 2.1029510e-04    55.88   198.92     1.50  PERIOD  ALL       00043872
581970.26000 4195312.32000 2.1073310e-04    55.90   198.92     1.50  PERIOD  ALL       00043872
581965.61000 4195312.43000 2.1129720e-04    55.85   198.92     1.50  PERIOD  ALL       00043872
581960.97000 4195312.53000 2.1191620e-04    55.78   198.92     1.50  PERIOD  ALL       00043872
581956.32000 4195312.63000 2.1289570e-04    55.45   198.92     1.50  PERIOD  ALL       00043872
581951.68000 4195312.73000 2.1386130e-04    55.17   198.92     1.50  PERIOD  ALL       00043872
581947.03000 4195309.93000 2.1275170e-04    55.14   198.92     1.50  PERIOD  ALL       00043872
581942.17000 4195307.00000 2.1138910e-04    55.27   198.92     1.50  PERIOD  ALL       00043872
581937.32000 4195306.97000 2.1196700e-04    55.29   198.92     1.50  PERIOD  ALL       00043872
581932.46000 4195306.94000 2.1247950e-04    55.38   198.92     1.50  PERIOD  ALL       00043872
581927.60000 4195306.91000 2.1302730e-04    55.46   198.92     1.50  PERIOD  ALL       00043872
```

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581922.75000 4195306.88000 2.1375620e-04    55.43   198.92     1.50  PERIOD  ALL       00043872
581917.80000 4195304.13000 2.1256060e-04    55.57   198.92     1.50  PERIOD  ALL       00043872
581912.82000 4195297.99000 2.0898550e-04    55.91   198.92     1.50  PERIOD  ALL       00043872
581908.27000 4195294.76000 2.0706370e-04    56.34   198.92     1.50  PERIOD  ALL       00043872
581903.89000 4195294.79000 2.0746530e-04    56.52   198.92     1.50  PERIOD  ALL       00043872
581899.52000 4195294.82000 2.0807430e-04    56.56   198.92     1.50  PERIOD  ALL       00043872
581895.15000 4195294.85000 2.0870700e-04    56.60   198.92     1.50  PERIOD  ALL       00043872
581890.77000 4195294.88000 2.0931510e-04    56.67   198.92     1.50  PERIOD  ALL       00043872
581881.08000 4195298.92000 2.1346810e-04    56.71   198.92     1.50  PERIOD  ALL       00043872
581876.12000 4195298.78000 2.1377250e-04    57.01   198.92     1.50  PERIOD  ALL       00043872
581871.16000 4195298.63000 2.1404720e-04    57.34   198.92     1.50  PERIOD  ALL       00043872
581866.20000 4195298.49000 2.1451620e-04    57.56   198.92     1.50  PERIOD  ALL       00043872
581861.24000 4195298.34000 2.1512870e-04    57.70   198.92     1.50  PERIOD  ALL       00043872
581856.28000 4195298.20000 2.1594520e-04    57.73   198.92     1.50  PERIOD  ALL       00043872
581851.32000 4195298.05000 2.1674060e-04    57.78   198.92     1.50  PERIOD  ALL       00043872
581846.36000 4195297.91000 2.1747630e-04    57.88   198.92     1.50  PERIOD  ALL       00043872
581841.40000 4195297.76000 2.1771590e-04    58.29   198.92     1.50  PERIOD  ALL       00043872
581836.32000 4195302.27000 2.2148780e-04    58.62   198.92     1.50  PERIOD  ALL       00043872
581836.20000 4195306.91000 2.2524300e-04    58.45   198.92     1.50  PERIOD  ALL       00043872
581831.80000 4195312.83000 2.3054820e-04    58.62   198.92     1.50  PERIOD  ALL       00043872
581827.51000 4195314.09000 2.3253830e-04    58.67   198.92     1.50  PERIOD  ALL       00043872
581825.07000 4195319.69000 2.3897530e-04    58.02   198.92     1.50  PERIOD  ALL       00043872
581826.92000 4195324.01000 2.4327730e-04    57.43   198.92     1.50  PERIOD  ALL       00043872
581828.76000 4195328.34000 2.4760970e-04    56.90   198.92     1.50  PERIOD  ALL       00043872
581830.60000 4195332.67000 2.5146180e-04    56.65   198.92     1.50  PERIOD  ALL       00043872
581832.44000 4195337.00000 2.5545030e-04    56.38   198.92     1.50  PERIOD  ALL       00043872
581834.29000 4195341.32000 2.5948850e-04    56.12   198.92     1.50  PERIOD  ALL       00043872
581836.13000 4195345.65000 2.6368360e-04    55.84   198.92     1.50  PERIOD  ALL       00043872
581837.97000 4195349.98000 2.6800840e-04    55.54   198.92     1.50  PERIOD  ALL       00043872
581839.81000 4195354.30000 2.7252080e-04    55.20   198.92     1.50  PERIOD  ALL       00043872
581841.66000 4195358.63000 2.7727850e-04    54.80   198.92     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on A - Non-Residential on B,C,D,E - Off-Site Middle School

HARP Project Summary Report 12/6/2022 12:20:28 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC2_MS
Project Output Directory: C:\HARP2\PROJECTS\TWC2_MS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	0	0	9901	DieselExhPM	1	46.39	0	1
SITE_B	0	0	9901	DieselExhPM	1	29.44	0	1
SITE_C	0	0	9901	DieselExhPM	1	14.72	0	1
SITE_D	0	0	9901	DieselExhPM	1	29.86	0	1
SITE_E	0	0	9901	DieselExhPM	1	17.24	0	1
BDWY	0	0	9901	DieselExhPM	1	1.06	0	1
MAIN	0	0	9901	DieselExhPM	1	1.32	0	1
CIVIC	0	0	9901	DieselExhPM	1	1.06	0	1
YGNO	0	0	9901	DieselExhPM	1	1.06	0	1
PARK	0	0	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/6/2022 12:37:16 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 11
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC2_MS\hra\TWC2_MS_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC2_MS\hra\TWC2_MS_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 12:37:45 PM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	1	ALL	581849	4195647	6.5123000e-08
2	41	ALL	581853	4195647	6.5027000e-08
3	45	ALL	581858	4195647	6.4965000e-08
4	5	ALL	581862	4195647	6.4906000e-08
5	173	ALL	581849	4195644	6.4286000e-08
6	2	ALL	581849	4195647	6.4183000e-08
7	42	ALL	581853	4195647	6.4096000e-08
8	46	ALL	581858	4195647	6.4053000e-08
9	6	ALL	581862	4195647	6.4020000e-08
10	49	ALL	581865	4195643	6.3622000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 12:20:47 PM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	1	ALL	581849	4195647	1.9337000e-04
2	41	ALL	581853	4195647	1.9308000e-04
3	45	ALL	581858	4195647	1.9290000e-04
4	5	ALL	581862	4195647	1.9272000e-04
5	173	ALL	581849	4195644	1.9088000e-04
6	2	ALL	581849	4195647	1.9058000e-04
7	42	ALL	581853	4195647	1.9032000e-04
8	46	ALL	581858	4195647	1.9019000e-04
9	6	ALL	581862	4195647	1.9010000e-04
10	49	ALL	581865	4195643	1.8891000e-04

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        12:19:42
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   176 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581849.04000 4195646.55000 9.6684960e-04   54.80   239.60    1.50  PERIOD  ALL       00043872
  581849.04000 4195646.56000 9.5289100e-04   54.80   239.60    4.50  PERIOD  ALL       00043872
  581849.04000 4195646.57000 9.3201620e-04   54.80   239.60    7.50  PERIOD  ALL       00043872
  581849.04000 4195646.58000 9.0395260e-04   54.80   239.60   10.50  PERIOD  ALL       00043872
  581862.03000 4195646.76000 9.6362390e-04   54.05   239.60    1.50  PERIOD  ALL       00043872
  581862.03000 4195646.77000 9.5047560e-04   54.05   239.60    4.50  PERIOD  ALL       00043872
  581862.03000 4195646.78000 9.3063860e-04   54.05   239.60    7.50  PERIOD  ALL       00043872
  581862.03000 4195646.79000 9.0362600e-04   54.05   239.60   10.50  PERIOD  ALL       00043872
  581878.85000 4195629.94000 8.8056250e-04   54.05   239.60    1.50  PERIOD  ALL       00043872
  581878.85000 4195629.95000 8.6828220e-04   54.05   239.60    4.50  PERIOD  ALL       00043872
  581878.85000 4195629.96000 8.5029040e-04   54.05   239.60    7.50  PERIOD  ALL       00043872
  581878.85000 4195629.97000 8.2603350e-04   54.05   239.60   10.50  PERIOD  ALL       00043872
  581879.27000 4195594.17000 7.4072140e-04   54.83   239.60    1.50  PERIOD  ALL       00043872
  581879.27000 4195594.18000 7.2946610e-04   54.83   239.60    4.50  PERIOD  ALL       00043872
  581879.27000 4195594.19000 7.1378260e-04   54.83   239.60    7.50  PERIOD  ALL       00043872
  581879.27000 4195594.20000 6.9336550e-04   54.83   239.60   10.50  PERIOD  ALL       00043872
  581864.16000 4195577.35000 6.9683420e-04   53.97   239.60    1.50  PERIOD  ALL       00043872
  581864.16000 4195577.36000 6.8813310e-04   53.97   239.60    4.50  PERIOD  ALL       00043872
  581864.16000 4195577.37000 6.7462890e-04   53.97   239.60    7.50  PERIOD  ALL       00043872
  581864.16000 4195577.38000 6.5670100e-04   53.97   239.60   10.50  PERIOD  ALL       00043872
  581837.33000 4195577.99000 7.1635550e-04   55.00   239.60    1.50  PERIOD  ALL       00043872
  581837.33000 4195578.00000 7.0691500e-04   55.00   239.60    4.50  PERIOD  ALL       00043872
  581837.33000 4195578.01000 6.9292140e-04   55.00   239.60    7.50  PERIOD  ALL       00043872
  581837.33000 4195578.02000 6.7407220e-04   55.00   239.60   10.50  PERIOD  ALL       00043872
  581836.69000 4195591.83000 7.6257230e-04   55.00   239.60    1.50  PERIOD  ALL       00043872
  581836.69000 4195591.84000 7.5256070e-04   55.00   239.60    4.50  PERIOD  ALL       00043872
  581836.69000 4195591.85000 7.3750270e-04   55.00   239.60    7.50  PERIOD  ALL       00043872
  581836.69000 4195591.86000 7.1711840e-04   55.00   239.60   10.50  PERIOD  ALL       00043872
  581842.86000 4195602.69000 7.9640970e-04   55.07   239.60    1.50  PERIOD  ALL       00043872
  581842.86000 4195602.70000 7.8563880e-04   55.07   239.60    4.50  PERIOD  ALL       00043872
  581842.86000 4195602.71000 7.6950620e-04   55.07   239.60    7.50  PERIOD  ALL       00043872
  581842.86000 4195602.72000 7.4773510e-04   55.07   239.60   10.50  PERIOD  ALL       00043872
  581843.08000 4195628.45000 8.9432710e-04   54.85   239.60    1.50  PERIOD  ALL       00043872
  581843.08000 4195628.46000 8.8199000e-04   54.85   239.60    4.50  PERIOD  ALL       00043872
  581843.08000 4195628.47000 8.6338250e-04   54.85   239.60    7.50  PERIOD  ALL       00043872
  581843.08000 4195628.48000 8.3821620e-04   54.85   239.60   10.50  PERIOD  ALL       00043872
  581848.83000 4195640.80000 9.4218390e-04   54.84   239.60    1.50  PERIOD  ALL       00043872
  581848.83000 4195640.81000 9.2872380e-04   54.84   239.60    4.50  PERIOD  ALL       00043872
  581848.83000 4195640.82000 9.0856930e-04   54.84   239.60    7.50  PERIOD  ALL       00043872
  581848.83000 4195640.83000 8.8145400e-04   54.84   239.60   10.50  PERIOD  ALL       00043872
  581853.37000 4195646.62000 9.6541870e-04   54.70   239.60    1.50  PERIOD  ALL       00043872
  581853.37000 4195646.63000 9.5159970e-04   54.69   239.60    4.50  PERIOD  ALL       00043872
  581853.37000 4195646.64000 9.3087120e-04   54.69   239.60    7.50  PERIOD  ALL       00043872
  581853.37000 4195646.65000 9.0299360e-04   54.69   239.60   10.50  PERIOD  ALL       00043872
  581857.70000 4195646.69000 9.6449340e-04   54.41   239.60    1.50  PERIOD  ALL       00043872
  581857.70000 4195646.70000 9.5095300e-04   54.41   239.60    4.50  PERIOD  ALL       00043872
  581857.70000 4195646.71000 9.3060530e-04   54.41   239.60    7.50  PERIOD  ALL       00043872
  581857.70000 4195646.72000 9.0310370e-04   54.41   239.60   10.50  PERIOD  ALL       00043872
  581865.39000 4195643.40000 9.4455730e-04   53.95   239.60    1.50  PERIOD  ALL       00043872
  581865.39000 4195643.41000 9.3441910e-04   53.95   239.60    4.50  PERIOD  ALL       00043872
  581865.39000 4195643.42000 9.1513600e-04   53.95   239.60    7.50  PERIOD  ALL       00043872
  581865.39000 4195643.43000 8.8885780e-04   53.95   239.60   10.50  PERIOD  ALL       00043872
  581868.76000 4195640.03000 9.2794280e-04   53.94   239.60    1.50  PERIOD  ALL       00043872
  581868.76000 4195640.04000 9.1794180e-04   53.94   239.60    4.50  PERIOD  ALL       00043872
  581868.76000 4195640.05000 8.9906680e-04   53.94   239.60    7.50  PERIOD  ALL       00043872
  581868.76000 4195640.06000 8.7335710e-04   53.94   239.60   10.50  PERIOD  ALL       00043872
  581872.12000 4195636.67000 9.1142350e-04   53.94   239.60    1.50  PERIOD  ALL       00043872
  581872.12000 4195636.68000 9.0149980e-04   53.94   239.60    4.50  PERIOD  ALL       00043872
  581872.12000 4195636.69000 8.8298360e-04   53.94   239.60    7.50  PERIOD  ALL       00043872
  581872.12000 4195636.70000 8.5783120e-04   53.94   239.60   10.50  PERIOD  ALL       00043872
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581875.49000 4195633.30000 8.9715660e-04    54.00   239.60     1.50  PERIOD  ALL       00043872
581875.49000 4195633.31000 8.8480710e-04    54.00   239.60     4.50  PERIOD  ALL       00043872
581875.49000 4195633.32000 8.6661670e-04    53.99   239.60     7.50  PERIOD  ALL       00043872
581875.49000 4195633.33000 8.4192490e-04    53.99   239.60    10.50  PERIOD  ALL       00043872
581878.90000 4195625.47000 8.6099890e-04    54.41   239.60     1.50  PERIOD  ALL       00043872
581878.90000 4195625.48000 8.4862950e-04    54.41   239.60     4.50  PERIOD  ALL       00043872
581878.90000 4195625.49000 8.3065360e-04    54.41   239.60     7.50  PERIOD  ALL       00043872
581878.90000 4195625.50000 8.0664330e-04    54.41   239.60    10.50  PERIOD  ALL       00043872
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581878.95000 4195621.02000 8.1213770e-04    54.63   239.60     7.50  PERIOD  ALL       00043872
581878.95000 4195621.03000 7.8853110e-04    54.63   239.60    10.50  PERIOD  ALL       00043872
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581879.01000 4195616.55000 7.9398060e-04    54.85   239.60     7.50  PERIOD  ALL       00043872
581879.01000 4195616.56000 7.7076380e-04    54.85   239.60    10.50  PERIOD  ALL       00043872
581879.06000 4195612.05000 8.0627570e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581879.06000 4195612.07000 7.9423840e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581879.06000 4195612.08000 7.7700320e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581879.06000 4195612.08000 7.5430070e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581879.11000 4195607.58000 7.8912980e-04    54.97   239.60     1.50  PERIOD  ALL       00043872
581879.11000 4195607.59000 7.7721300e-04    54.97   239.60     4.50  PERIOD  ALL       00043872
581879.11000 4195607.60000 7.6031810e-04    54.97   239.60     7.50  PERIOD  ALL       00043872
581879.11000 4195607.61000 7.3817120e-04    54.97   239.60    10.50  PERIOD  ALL       00043872
581879.17000 4195603.11000 7.7257730e-04    54.95   239.60     1.50  PERIOD  ALL       00043872
581879.17000 4195603.12000 7.6087110e-04    54.95   239.60     4.50  PERIOD  ALL       00043872
581879.17000 4195603.13000 7.4437920e-04    54.95   239.60     7.50  PERIOD  ALL       00043872
581879.17000 4195603.14000 7.2281090e-04    54.95   239.60    10.50  PERIOD  ALL       00043872
581879.22000 4195598.64000 7.5645790e-04    54.90   239.60     1.50  PERIOD  ALL       00043872
581879.22000 4195598.65000 7.4497130e-04    54.90   239.60     4.50  PERIOD  ALL       00043872
581879.22000 4195598.66000 7.2888530e-04    54.90   239.60     7.50  PERIOD  ALL       00043872
581879.22000 4195598.67000 7.0789800e-04    54.90   239.60    10.50  PERIOD  ALL       00043872
581876.25000 4195590.81000 7.3113080e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581876.25000 4195590.82000 7.2003520e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581876.25000 4195590.83000 7.0458220e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581876.25000 4195590.84000 6.8448270e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581873.23000 4195587.44000 7.2265610e-04    54.65   239.60     1.50  PERIOD  ALL       00043872
581873.23000 4195587.45000 7.1196200e-04    54.65   239.60     4.50  PERIOD  ALL       00043872
581873.23000 4195587.46000 6.9702240e-04    54.65   239.60     7.50  PERIOD  ALL       00043872
581873.23000 4195587.47000 6.7751340e-04    54.65   239.60    10.50  PERIOD  ALL       00043872
581870.20000 4195584.08000 7.1448580e-04    54.34   239.60     1.50  PERIOD  ALL       00043872
581870.20000 4195584.09000 7.0419130e-04    54.34   239.60     4.50  PERIOD  ALL       00043872
581870.20000 4195584.10000 6.8982380e-04    54.34   239.60     7.50  PERIOD  ALL       00043872
581870.20000 4195584.11000 6.7091810e-04    54.34   239.60    10.50  PERIOD  ALL       00043872
581867.18000 4195580.71000 7.0623840e-04    54.08   239.60     1.50  PERIOD  ALL       00043872
581867.18000 4195580.72000 6.9632280e-04    54.08   239.60     4.50  PERIOD  ALL       00043872
581867.18000 4195580.73000 6.8245800e-04    54.08   239.60     7.50  PERIOD  ALL       00043872
581867.18000 4195580.74000 6.6411300e-04    54.08   239.60    10.50  PERIOD  ALL       00043872
581859.69000 4195577.46000 7.0128330e-04    54.03   239.60     1.50  PERIOD  ALL       00043872
581859.69000 4195577.47000 6.9177260e-04    54.03   239.60     4.50  PERIOD  ALL       00043872
581859.69000 4195577.48000 6.7830740e-04    54.03   239.60     7.50  PERIOD  ALL       00043872
581859.69000 4195577.49000 6.6034090e-04    54.03   239.60    10.50  PERIOD  ALL       00043872
581855.22000 4195577.56000 7.0418940e-04    54.30   239.60     1.50  PERIOD  ALL       00043872
581855.22000 4195577.57000 6.9468790e-04    54.30   239.60     4.50  PERIOD  ALL       00043872
581855.22000 4195577.58000 6.8106780e-04    54.30   239.60     7.50  PERIOD  ALL       00043872
581855.22000 4195577.59000 6.6288060e-04    54.30   239.60    10.50  PERIOD  ALL       00043872
581850.74000 4195577.67000 7.0714270e-04    54.55   239.60     1.50  PERIOD  ALL       00043872
581850.74000 4195577.68000 6.9761870e-04    54.55   239.60     4.50  PERIOD  ALL       00043872
581850.74000 4195577.69000 6.8385500e-04    54.55   239.60     7.50  PERIOD  ALL       00043872
581850.74000 4195577.70000 6.6545860e-04    54.55   239.60    10.50  PERIOD  ALL       00043872
581846.27000 4195577.78000 7.1014000e-04    54.76   239.60     1.50  PERIOD  ALL       00043872
581846.27000 4195577.79000 7.0061350e-04    54.76   239.60     4.50  PERIOD  ALL       00043872
581846.27000 4195577.80000 6.8673330e-04    54.76   239.60     7.50  PERIOD  ALL       00043872
581846.27000 4195577.81000 6.6813520e-04    54.76   239.60    10.50  PERIOD  ALL       00043872
581841.80000 4195577.88000 7.1318370e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581841.80000 4195577.89000 7.0369600e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581841.80000 4195577.90000 6.8972690e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581841.80000 4195577.91000 6.7098620e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581837.12000 4195582.60000 7.3145730e-04    55.00   239.60     1.50  PERIOD  ALL       00043872
```

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581837.12000 4195582.61000 7.2185610e-04    55.00   239.60     4.50  PERIOD  ALL       00043872
581837.12000 4195582.62000 7.0751930e-04    55.00   239.60     7.50  PERIOD  ALL       00043872
581837.12000 4195582.63000 6.8817750e-04    55.00   239.60    10.50  PERIOD  ALL       00043872
581836.90000 4195587.22000 7.4690750e-04    54.99   239.60     1.50  PERIOD  ALL       00043872
581836.90000 4195587.23000 7.3712320e-04    54.99   239.60     4.50  PERIOD  ALL       00043872
581836.90000 4195587.24000 7.2245990e-04    54.99   239.60     7.50  PERIOD  ALL       00043872
581836.90000 4195587.25000 7.0260590e-04    54.99   239.60    10.50  PERIOD  ALL       00043872
581838.75000 4195595.45000 7.7364370e-04    55.02   239.60     1.50  PERIOD  ALL       00043872
581838.75000 4195595.46000 7.6339560e-04    55.02   239.60     4.50  PERIOD  ALL       00043872
581838.75000 4195595.47000 7.4799440e-04    55.02   239.60     7.50  PERIOD  ALL       00043872
581838.75000 4195595.48000 7.2715820e-04    55.02   239.60    10.50  PERIOD  ALL       00043872
581840.80000 4195599.07000 7.8492940e-04    55.04   239.60     1.50  PERIOD  ALL       00043872
581840.80000 4195599.08000 7.7442610e-04    55.04   239.60     4.50  PERIOD  ALL       00043872
581840.80000 4195599.09000 7.5867510e-04    55.04   239.60     7.50  PERIOD  ALL       00043872
581840.80000 4195599.10000 7.3739030e-04    55.04   239.60    10.50  PERIOD  ALL       00043872
581842.90000 4195606.98000 8.1188700e-04    55.07   239.60     1.50  PERIOD  ALL       00043872
581842.90000 4195606.99000 8.0086470e-04    55.07   239.60     4.50  PERIOD  ALL       00043872
581842.90000 4195607.00000 7.8431160e-04    55.07   239.60     7.50  PERIOD  ALL       00043872
581842.90000 4195607.01000 7.6199110e-04    55.07   239.60    10.50  PERIOD  ALL       00043872
581842.93000 4195611.28000 8.2776740e-04    55.04   239.60     1.50  PERIOD  ALL       00043872
581842.93000 4195611.29000 8.1649430e-04    55.04   239.60     4.50  PERIOD  ALL       00043872
581842.93000 4195611.30000 7.9955770e-04    55.04   239.60     7.50  PERIOD  ALL       00043872
581842.93000 4195611.31000 7.7668830e-04    55.04   239.60    10.50  PERIOD  ALL       00043872
581842.97000 4195615.57000 8.4387520e-04    55.02   239.60     1.50  PERIOD  ALL       00043872
581842.97000 4195615.58000 8.3233620e-04    55.02   239.60     4.50  PERIOD  ALL       00043872
581842.97000 4195615.59000 8.1496850e-04    55.02   239.60     7.50  PERIOD  ALL       00043872
581842.97000 4195615.60000 7.9151410e-04    55.02   239.60    10.50  PERIOD  ALL       00043872
581843.01000 4195619.86000 8.6037050e-04    54.96   239.60     1.50  PERIOD  ALL       00043872
581843.01000 4195619.87000 8.4859300e-04    54.96   239.60     4.50  PERIOD  ALL       00043872
581843.01000 4195619.88000 8.3083900e-04    54.96   239.60     7.50  PERIOD  ALL       00043872
581843.01000 4195619.89000 8.0683510e-04    54.96   239.60    10.50  PERIOD  ALL       00043872
581843.04000 4195624.16000 8.7720710e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581843.04000 4195624.17000 8.6515180e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581843.04000 4195624.18000 8.4696170e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581843.04000 4195624.19000 8.2238150e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581845.00000 4195632.57000 9.0998820e-04    54.83   239.60     1.50  PERIOD  ALL       00043872
581845.00000 4195632.58000 8.9732000e-04    54.83   239.60     4.50  PERIOD  ALL       00043872
581845.00000 4195632.59000 8.7823080e-04    54.83   239.60     7.50  PERIOD  ALL       00043872
581845.00000 4195632.60000 8.5245310e-04    54.83   239.60    10.50  PERIOD  ALL       00043872
581846.91000 4195636.68000 9.2593670e-04    54.82   239.60     1.50  PERIOD  ALL       00043872
581846.91000 4195636.69000 9.1290370e-04    54.82   239.60     4.50  PERIOD  ALL       00043872
581846.91000 4195636.70000 8.9331190e-04    54.82   239.60     7.50  PERIOD  ALL       00043872
581846.91000 4195636.71000 8.6690100e-04    54.82   239.60    10.50  PERIOD  ALL       00043872
581848.94000 4195643.67000 9.5441290e-04    54.82   239.60     1.50  PERIOD  ALL       00043872
581848.94000 4195643.68000 9.4070910e-04    54.82   239.60     4.50  PERIOD  ALL       00043872
581848.94000 4195643.70000 9.2023830e-04    54.82   239.60     7.50  PERIOD  ALL       00043872
581848.94000 4195643.71000 8.9266910e-04    54.82   239.60    10.50  PERIOD  ALL       00043872
```

Unmitigated Non-Residential Buildout of A, C, D and E - On-Site Site B

HARP Project Summary Report 12/6/2022 3:09:46 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC3.2
Project Output Directory: C:\HARP2\PROJECTS\TWC3.2
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	106.2	0	1
SITE_B	9901	DieselExhPM	1	0	0	1
SITE_C	9901	DieselExhPM	1	18.18	0	1
SITE_D	9901	DieselExhPM	1	36.87	0	1
SITE_E	9901	DieselExhPM	1	21.29	0	1
BDWY	9901	DieselExhPM	1	1.93	0	1
MAIN	9901	DieselExhPM	1	2.41	0	1
CIVIC	9901	DieselExhPM	1	1.93	0	1
YGNO	9901	DieselExhPM	1	1.93	0	1
PARK	9901	DieselExhPM	1	1.45	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/1/2022 12:57:32 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

**********
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\HARP2\PROJECTS\TWC3.2\hra\TWC3.2_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC3.2\hra\TWC3.2_CANCER_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/2/2022 8:12:35 AM
RISK SCENARIO: NCChronic

LINE	REC	TYPE	X	Y	CANCER RISK
1	4	ALL	582447	4196188	1.8988000e-05
2	59	ALL	582452	4196189	1.7559000e-05
3	60	ALL	582446	4196193	1.6627000e-05
4	58	ALL	582457	4196190	1.6353000e-05
5	57	ALL	582462	4196191	1.5328000e-05
6	61	ALL	582445	4196197	1.4751000e-05
7	56	ALL	582467	4196192	1.4524000e-05
8	55	ALL	582472	4196193	1.3900000e-05
9	54	ALL	582476	4196194	1.3426000e-05
10	53	ALL	582481	4196195	1.3057000e-05

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/2/2022 8:13:11 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	4	ALL	582447	4196188	2.1353000e-02
2	59	ALL	582452	4196189	1.9747000e-02
3	60	ALL	582446	4196193	1.8698000e-02
4	58	ALL	582457	4196190	1.8391000e-02
5	57	ALL	582462	4196191	1.7237000e-02
6	61	ALL	582445	4196197	1.6589000e-02
7	56	ALL	582467	4196192	1.6333000e-02
8	55	ALL	582472	4196193	1.5632000e-02
9	54	ALL	582476	4196194	1.5098000e-02
10	53	ALL	582481	4196195	1.4684000e-02

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/02/22
* AERMET ( 14134):                                                                        08:11:35
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF    69 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  582437.09000 4196234.18000 3.9342190e-02   49.98    49.98     1.50  PERIOD  ALL       00043872
  582545.62000 4196260.83000 2.6526440e-02   51.01    51.01     1.50  PERIOD  ALL       00043872
  582562.86000 4196212.92000 6.1741510e-02   51.25    51.25     1.50  PERIOD  ALL       00043872
  582447.46000 4196187.89000 1.0676590e-01   50.47    50.47     1.50  PERIOD  ALL       00043872
  582441.81000 4196235.34000 3.8455990e-02   50.10    50.10     1.50  PERIOD  ALL       00043872
  582446.53000 4196236.50000 3.8028530e-02   50.21    50.21     1.50  PERIOD  ALL       00043872
  582451.25000 4196237.66000 3.7023570e-02   50.24    50.24     1.50  PERIOD  ALL       00043872
  582455.96000 4196238.82000 3.6107670e-02   50.22    50.22     1.50  PERIOD  ALL       00043872
  582460.68000 4196239.97000 3.5214660e-02   50.26    50.26     1.50  PERIOD  ALL       00043872
  582465.40000 4196241.13000 3.4365270e-02   50.32    50.32     1.50  PERIOD  ALL       00043872
  582470.12000 4196242.29000 3.3542200e-02   50.44    50.44     1.50  PERIOD  ALL       00043872
  582474.84000 4196243.45000 3.2774950e-02   50.57    50.57     1.50  PERIOD  ALL       00043872
  582479.56000 4196244.61000 3.2055640e-02   50.72    50.72     1.50  PERIOD  ALL       00043872
  582484.28000 4196245.77000 3.1434890e-02   50.80    50.80     1.50  PERIOD  ALL       00043872
  582489.00000 4196246.93000 3.0874250e-02   50.86    50.86     1.50  PERIOD  ALL       00043872
  582493.71000 4196248.08000 3.0355080e-02   50.93    50.93     1.50  PERIOD  ALL       00043872
  582498.43000 4196249.24000 2.9887480e-02   50.97    50.97     1.50  PERIOD  ALL       00043872
  582503.15000 4196250.40000 2.9469380e-02   50.98    50.98     1.50  PERIOD  ALL       00043872
  582507.87000 4196251.56000 2.9090100e-02   50.97    50.97     1.50  PERIOD  ALL       00043872
  582512.59000 4196252.72000 2.8744080e-02   50.94    50.94     1.50  PERIOD  ALL       00043872
  582517.31000 4196253.88000 2.8421520e-02   50.90    50.90     1.50  PERIOD  ALL       00043872
  582522.03000 4196255.04000 2.8114180e-02   50.86    50.86     1.50  PERIOD  ALL       00043872
  582526.75000 4196256.20000 2.7787000e-02   50.89    50.89     1.50  PERIOD  ALL       00043872
  582531.46000 4196257.35000 2.7466820e-02   50.93    50.93     1.50  PERIOD  ALL       00043872
  582536.18000 4196258.51000 2.7140240e-02   50.99    50.99     1.50  PERIOD  ALL       00043872
  582540.90000 4196259.67000 2.6831240e-02   51.01    51.01     1.50  PERIOD  ALL       00043872
  582547.19000 4196256.47000 2.8071270e-02   51.10    51.10     1.50  PERIOD  ALL       00043872
  582548.75000 4196252.12000 2.9797980e-02   51.14    51.14     1.50  PERIOD  ALL       00043872
  582550.32000 4196247.76000 3.1736010e-02   51.15    51.15     1.50  PERIOD  ALL       00043872
  582551.89000 4196243.41000 3.3903740e-02   51.16    51.16     1.50  PERIOD  ALL       00043872
  582553.46000 4196239.05000 3.6339540e-02   51.19    51.19     1.50  PERIOD  ALL       00043872
  582555.02000 4196234.70000 3.9117760e-02   51.21    51.21     1.50  PERIOD  ALL       00043872
  582556.59000 4196230.34000 4.2315160e-02   51.23    51.23     1.50  PERIOD  ALL       00043872
  582558.16000 4196225.99000 4.6031850e-02   51.24    51.24     1.50  PERIOD  ALL       00043872
  582559.73000 4196221.63000 5.0362010e-02   51.28    51.28     1.50  PERIOD  ALL       00043872
  582561.29000 4196217.28000 5.5504550e-02   51.29    51.29     1.50  PERIOD  ALL       00043872
  582558.05000 4196211.88000 6.2290720e-02   51.38    51.38     1.50  PERIOD  ALL       00043872
  582553.24000 4196210.83000 6.2776180e-02   51.45    51.45     1.50  PERIOD  ALL       00043872
  582548.44000 4196209.79000 6.3223040e-02   51.47    51.47     1.50  PERIOD  ALL       00043872
  582543.63000 4196208.75000 6.3633400e-02   51.46    51.46     1.50  PERIOD  ALL       00043872
  582538.82000 4196207.71000 6.4064270e-02   51.42    51.42     1.50  PERIOD  ALL       00043872
  582534.01000 4196206.66000 6.4688760e-02   51.28    51.28     1.50  PERIOD  ALL       00043872
  582529.20000 4196205.62000 6.5311200e-02   51.14    51.14     1.50  PERIOD  ALL       00043872
  582524.39000 4196204.58000 6.5783540e-02   51.08    51.08     1.50  PERIOD  ALL       00043872
  582519.58000 4196203.53000 6.6271630e-02   51.03    51.03     1.50  PERIOD  ALL       00043872
  582514.78000 4196202.49000 6.6759360e-02   51.00    51.00     1.50  PERIOD  ALL       00043872
  582509.97000 4196201.45000 6.7313750e-02   50.98    50.98     1.50  PERIOD  ALL       00043872
  582505.16000 4196200.41000 6.7915660e-02   50.96    50.96     1.50  PERIOD  ALL       00043872
  582500.35000 4196199.36000 6.8666920e-02   50.93    50.93     1.50  PERIOD  ALL       00043872
  582495.54000 4196198.32000 6.9547620e-02   50.90    50.90     1.50  PERIOD  ALL       00043872
  582490.73000 4196197.28000 7.0554540e-02   50.90    50.90     1.50  PERIOD  ALL       00043872
  582485.93000 4196196.23000 7.1842540e-02   50.90    50.90     1.50  PERIOD  ALL       00043872
  582481.12000 4196195.19000 7.3418500e-02   50.90    50.90     1.50  PERIOD  ALL       00043872
  582476.31000 4196194.15000 7.5491040e-02   50.88    50.88     1.50  PERIOD  ALL       00043872
  582471.50000 4196193.11000 7.8159720e-02   50.85    50.85     1.50  PERIOD  ALL       00043872
  582466.69000 4196192.06000 8.1664350e-02   50.80    50.80     1.50  PERIOD  ALL       00043872
  582461.89000 4196191.02000 8.6185710e-02   50.74    50.74     1.50  PERIOD  ALL       00043872
  582457.08000 4196189.98000 9.1952790e-02   50.69    50.69     1.50  PERIOD  ALL       00043872
  582452.27000 4196188.93000 9.8732750e-02   50.57    50.57     1.50  PERIOD  ALL       00043872
  582446.42000 4196192.52000 9.3489270e-02   50.45    50.45     1.50  PERIOD  ALL       00043872
```

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582445.39000 4196197.15000 8.2943980e-02    50.42    50.42     1.50  PERIOD  ALL       00043872
582444.35000 4196201.78000 7.3142550e-02    50.40    50.40     1.50  PERIOD  ALL       00043872
582443.31000 4196206.41000 6.5553260e-02    50.37    50.37     1.50  PERIOD  ALL       00043872
582442.28000 4196211.04000 5.9782630e-02    50.31    50.31     1.50  PERIOD  ALL       00043872
582441.24000 4196215.66000 5.3875300e-02    50.24    50.24     1.50  PERIOD  ALL       00043872
582440.20000 4196220.29000 4.9345530e-02    50.17    50.17     1.50  PERIOD  ALL       00043872
582439.16000 4196224.92000 4.5906330e-02    50.12    50.12     1.50  PERIOD  ALL       00043872
582438.13000 4196229.55000 4.1819490e-02    50.06    50.06     1.50  PERIOD  ALL       00043872
582969.53000 4195797.56000 3.2041490e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on B- Non-Residential on A,C,D,E - Off-Site Residential

HARP Project Summary Report 12/6/2022 3:11:01 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC3_RES
Project Output Directory: C:\HARP2\PROJECTS\TWC3_RES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	53.1	0	1
SITE_B	9901	DieselExhPM	1	46.39	0	1
SITE_C	9901	DieselExhPM	1	9.09	0	1
SITE_D	9901	DieselExhPM	1	18.44	0	1
SITE_E	9901	DieselExhPM	1	10.65	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/1/2022 1:02:53 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

**********
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 2

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

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC3_RES\hra\TWC3_RES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC3_RES\hra\TWC3_RES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 1:03:09 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	327	ALL	582626	4196098	1.1438000e-05
2	415	ALL	582631	4196098	1.1070000e-05
3	414	ALL	582626	4196094	1.0850000e-05
4	416	ALL	582636	4196099	1.0710000e-05
5	417	ALL	582640	4196099	1.0362000e-05
6	413	ALL	582627	4196091	1.0295000e-05
7	418	ALL	582645	4196099	1.0024000e-05
8	412	ALL	582627	4196087	9.7670000e-06
9	419	ALL	582650	4196099	9.6976000e-06
10	420	ALL	582654	4196099	9.3849000e-06

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/1/2022 5:51:06 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	327	ALL	582626	4196098	6.6870000e-03
2	415	ALL	582631	4196098	6.4721000e-03
3	414	ALL	582626	4196094	6.3436000e-03
4	416	ALL	582636	4196099	6.2617000e-03
5	417	ALL	582640	4196099	6.0580000e-03
6	413	ALL	582627	4196091	6.0187000e-03
7	418	ALL	582645	4196099	5.8604000e-03
8	412	ALL	582627	4196087	5.7102000e-03
9	419	ALL	582650	4196099	5.6696000e-03
10	420	ALL	582654	4196099	5.4867000e-03

* MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN
* PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 644 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
582033.26000	4196289.55000	9.8730460e-04	44.86	239.60	1.50	PERIOD	ALL	00043872	
582098.16000	4196263.48000	1.5940600e-03	50.22	198.92	1.50	PERIOD	ALL	00043872	
582100.26000	4196247.28000	1.8232340e-03	50.77	198.92	1.50	PERIOD	ALL	00043872	
582096.16000	4196234.19000	2.0016440e-03	50.61	198.92	1.50	PERIOD	ALL	00043872	
582034.59000	4196258.60000	1.2240150e-03	46.16	239.60	1.50	PERIOD	ALL	00043872	
582037.90000	4196287.69000	1.0196290e-03	45.36	239.60	1.50	PERIOD	ALL	00043872	
582042.53000	4196285.83000	1.0517860e-03	46.24	239.60	1.50	PERIOD	ALL	00043872	
582047.17000	4196283.96000	1.0832630e-03	47.79	239.60	1.50	PERIOD	ALL	00043872	
582051.80000	4196282.10000	1.1105820e-03	48.91	198.92	1.50	PERIOD	ALL	00043872	
582056.44000	4196280.24000	1.1383400e-03	49.85	198.92	1.50	PERIOD	ALL	00043872	
582061.07000	4196278.38000	1.1734260e-03	50.18	198.92	1.50	PERIOD	ALL	00043872	
582065.71000	4196276.51000	1.2125890e-03	50.40	198.92	1.50	PERIOD	ALL	00043872	
582070.35000	4196274.65000	1.2558020e-03	50.50	198.92	1.50	PERIOD	ALL	00043872	
582074.98000	4196272.79000	1.3017090e-03	50.58	198.92	1.50	PERIOD	ALL	00043872	
582079.62000	4196270.93000	1.3499140e-03	50.68	198.92	1.50	PERIOD	ALL	00043872	
582084.25000	4196269.07000	1.4032220e-03	50.66	198.92	1.50	PERIOD	ALL	00043872	
582088.89000	4196267.20000	1.4596030e-03	50.66	198.92	1.50	PERIOD	ALL	00043872	
582093.52000	4196265.34000	1.5239680e-03	50.46	198.92	1.50	PERIOD	ALL	00043872	
582098.69000	4196259.43000	1.6428410e-03	50.48	198.92	1.50	PERIOD	ALL	00043872	
582099.21000	4196255.38000	1.6959120e-03	50.70	198.92	1.50	PERIOD	ALL	00043872	
582099.73000	4196251.33000	1.7579110e-03	50.72	198.92	1.50	PERIOD	ALL	00043872	
582098.89000	4196242.92000	1.8772050e-03	50.78	198.92	1.50	PERIOD	ALL	00043872	
582097.53000	4196238.55000	1.9372850e-03	50.71	198.92	1.50	PERIOD	ALL	00043872	
582091.76000	4196235.93000	1.9124610e-03	50.82	198.92	1.50	PERIOD	ALL	00043872	
582087.36000	4196237.68000	1.8324260e-03	50.90	198.92	1.50	PERIOD	ALL	00043872	
582082.97000	4196239.42000	1.7588550e-03	50.93	198.92	1.50	PERIOD	ALL	00043872	
582078.57000	4196241.16000	1.6902510e-03	50.93	198.92	1.50	PERIOD	ALL	00043872	
582074.17000	4196242.91000	1.6255010e-03	50.93	198.92	1.50	PERIOD	ALL	00043872	
582069.77000	4196244.65000	1.5655860e-03	50.88	198.92	1.50	PERIOD	ALL	00043872	
582065.38000	4196246.39000	1.5090250e-03	50.83	198.92	1.50	PERIOD	ALL	00043872	
582060.98000	4196248.14000	1.4573760e-03	50.67	198.92	1.50	PERIOD	ALL	00043872	
582056.58000	4196249.88000	1.4093860e-03	50.46	198.92	1.50	PERIOD	ALL	00043872	
582052.18000	4196251.63000	1.3731330e-03	49.73	198.92	1.50	PERIOD	ALL	00043872	
582047.78000	4196253.37000	1.3386060e-03	48.78	198.92	1.50	PERIOD	ALL	00043872	
582043.39000	4196255.11000	1.3058580e-03	47.48	239.60	1.50	PERIOD	ALL	00043872	
582038.99000	4196256.86000	1.2646360e-03	46.60	239.60	1.50	PERIOD	ALL	00043872	
582034.40000	4196263.02000	1.1837320e-03	46.03	239.60	1.50	PERIOD	ALL	00043872	
582034.21000	4196267.44000	1.1458570e-03	45.87	239.60	1.50	PERIOD	ALL	00043872	
582034.02000	4196271.86000	1.1103350e-03	45.67	239.60	1.50	PERIOD	ALL	00043872	
582033.83000	4196276.29000	1.0768760e-03	45.46	239.60	1.50	PERIOD	ALL	00043872	
582033.64000	4196280.71000	1.0453110e-03	45.23	239.60	1.50	PERIOD	ALL	00043872	
582033.45000	4196285.13000	1.0154730e-03	45.01	239.60	1.50	PERIOD	ALL	00043872	
581942.98000	4196183.33000	1.4577510e-03	51.77	239.60	1.50	PERIOD	ALL	00043872	
581945.42000	4196182.66000	1.4883800e-03	51.19	239.60	1.50	PERIOD	ALL	00043872	
581956.94000	4196148.43000	2.0530110e-03	50.82	239.60	1.50	PERIOD	ALL	00043872	
581952.97000	4196130.72000	2.2910450e-03	50.79	239.60	1.50	PERIOD	ALL	00043872	
581943.39000	4196122.05000	2.3045550e-03	51.57	239.60	1.50	PERIOD	ALL	00043872	
581941.58000	4196113.92000	2.4091010e-03	51.51	239.60	1.50	PERIOD	ALL	00043872	
581919.00000	4196090.07000	2.4282750e-03	53.63	239.60	1.50	PERIOD	ALL	00043872	
581946.86000	4196178.38000	1.5509050e-03	51.06	239.60	1.50	PERIOD	ALL	00043872	
581948.30000	4196174.10000	1.6156760e-03	50.96	239.60	1.50	PERIOD	ALL	00043872	
581949.74000	4196169.82000	1.6822530e-03	50.92	239.60	1.50	PERIOD	ALL	00043872	
581951.18000	4196165.54000	1.7511430e-03	50.90	239.60	1.50	PERIOD	ALL	00043872	
581952.62000	4196161.27000	1.8225410e-03	50.88	239.60	1.50	PERIOD	ALL	00043872	
581954.06000	4196156.99000	1.8962090e-03	50.89	239.60	1.50	PERIOD	ALL	00043872	
581955.50000	4196152.71000	1.9727130e-03	50.89	239.60	1.50	PERIOD	ALL	00043872	
581955.95000	4196144.00000	2.1134340e-03	50.74	239.60	1.50	PERIOD	ALL	00043872	
581954.95000	4196139.58000	2.1732370e-03	50.70	239.60	1.50	PERIOD	ALL	00043872	
581953.96000	4196135.15000	2.2323680e-03	50.73	239.60	1.50	PERIOD	ALL	00043872	
581949.78000	4196127.83000	2.2950870e-03	51.11	239.60	1.50	PERIOD	ALL	00043872	

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581946.58000 4196124.94000 2.2991890e-03    51.39   239.60     1.50  PERIOD  ALL       00043872
581942.48000 4196117.99000 2.3564360e-03    51.56   239.60     1.50  PERIOD  ALL       00043872
581938.35000 4196110.51000 2.4228080e-03    51.47   239.60     1.50  PERIOD  ALL       00043872
581935.13000 4196107.11000 2.4309650e-03    51.69   239.60     1.50  PERIOD  ALL       00043872
581931.90000 4196103.70000 2.4370640e-03    51.97   239.60     1.50  PERIOD  ALL       00043872
581928.68000 4196100.29000 2.4436510e-03    52.17   239.60     1.50  PERIOD  ALL       00043872
581925.45000 4196096.88000 2.4438230e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581922.23000 4196093.48000 2.4339960e-03    53.01   239.60     1.50  PERIOD  ALL       00043872
581920.20000 4196094.73000 2.3839460e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581921.40000 4196099.40000 2.3338530e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581922.60000 4196104.06000 2.2807780e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581923.80000 4196108.72000 2.2293950e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581924.99000 4196113.38000 2.1774530e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581926.19000 4196118.05000 2.1262250e-03    53.46   239.60     1.50  PERIOD  ALL       00043872
581927.39000 4196122.71000 2.0785120e-03    53.31   239.60     1.50  PERIOD  ALL       00043872
581928.59000 4196127.37000 2.0277380e-03    53.22   239.60     1.50  PERIOD  ALL       00043872
581929.79000 4196132.04000 1.9727070e-03    53.34   239.60     1.50  PERIOD  ALL       00043872
581930.99000 4196136.70000 1.9171840e-03    53.41   239.60     1.50  PERIOD  ALL       00043872
581932.19000 4196141.36000 1.8676890e-03    53.36   239.60     1.50  PERIOD  ALL       00043872
581933.39000 4196146.03000 1.8173230e-03    53.27   239.60     1.50  PERIOD  ALL       00043872
581934.59000 4196150.69000 1.7699810e-03    53.04   239.60     1.50  PERIOD  ALL       00043872
581935.79000 4196155.35000 1.7387510e-03    52.75   239.60     1.50  PERIOD  ALL       00043872
581936.98000 4196160.01000 1.6888430e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581938.18000 4196164.68000 1.6387060e-03    52.65   239.60     1.50  PERIOD  ALL       00043872
581939.38000 4196169.34000 1.5905570e-03    52.55   239.60     1.50  PERIOD  ALL       00043872
581940.58000 4196174.00000 1.5445120e-03    52.36   239.60     1.50  PERIOD  ALL       00043872
581941.78000 4196178.67000 1.4999030e-03    52.12   239.60     1.50  PERIOD  ALL       00043872
581947.23000 4195600.07000 6.9703350e-04    52.07   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195619.11000 7.3288750e-04    49.42   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195615.12000 7.1649010e-04    49.69   198.92     1.50  PERIOD  ALL       00043872
582029.86000 4195628.63000 7.3730110e-04    48.73   198.92     1.50  PERIOD  ALL       00043872
582030.17000 4195545.08000 4.8436290e-04    48.40   198.92     1.50  PERIOD  ALL       00043872
581948.92000 4195544.31000 5.2185970e-04    52.82   198.92     1.50  PERIOD  ALL       00043872
581948.30000 4195553.07000 5.4344480e-04    53.14   198.92     1.50  PERIOD  ALL       00043872
581931.10000 4195560.75000 5.7570250e-04    53.84   198.92     1.50  PERIOD  ALL       00043872
581947.84000 4195596.69000 6.8400810e-04    52.28   198.92     1.50  PERIOD  ALL       00043872
581951.47000 4195601.80000 7.0007890e-04    51.82   198.92     1.50  PERIOD  ALL       00043872
581955.72000 4195603.53000 7.0331330e-04    51.53   198.92     1.50  PERIOD  ALL       00043872
581959.96000 4195605.26000 7.0640280e-04    51.29   198.92     1.50  PERIOD  ALL       00043872
581964.21000 4195606.99000 7.0950110e-04    51.06   198.92     1.50  PERIOD  ALL       00043872
581968.45000 4195608.72000 7.1259460e-04    50.85   198.92     1.50  PERIOD  ALL       00043872
581972.70000 4195610.46000 7.1574610e-04    50.64   198.92     1.50  PERIOD  ALL       00043872
581976.94000 4195612.19000 7.1911400e-04    50.38   198.92     1.50  PERIOD  ALL       00043872
581981.19000 4195613.92000 7.2252720e-04    50.12   198.92     1.50  PERIOD  ALL       00043872
581985.43000 4195615.65000 7.2606820e-04    49.85   198.92     1.50  PERIOD  ALL       00043872
581989.68000 4195617.38000 7.2969780e-04    49.58   198.92     1.50  PERIOD  ALL       00043872
581998.41000 4195616.81000 7.1950250e-04    49.47   198.92     1.50  PERIOD  ALL       00043872
582002.91000 4195618.50000 7.2214070e-04    49.29   198.92     1.50  PERIOD  ALL       00043872
582007.40000 4195620.19000 7.2466050e-04    49.16   198.92     1.50  PERIOD  ALL       00043872
582011.89000 4195621.88000 7.2730710e-04    49.01   198.92     1.50  PERIOD  ALL       00043872
582016.38000 4195623.56000 7.2991450e-04    48.88   198.92     1.50  PERIOD  ALL       00043872
582020.88000 4195625.25000 7.3243050e-04    48.79   198.92     1.50  PERIOD  ALL       00043872
582025.37000 4195626.94000 7.3487500e-04    48.75   198.92     1.50  PERIOD  ALL       00043872
582029.88000 4195623.71000 7.1777650e-04    48.77   198.92     1.50  PERIOD  ALL       00043872
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582637.21000 4195782.87000 1.6384190e-03    41.01    41.01     1.50  PERIOD  ALL       00043872
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582341.38000 4196475.97000 2.2518400e-03    45.21    45.21     1.50  PERIOD  ALL       00043872
582352.34000 4196469.49000 2.4976090e-03    45.27    45.27     1.50  PERIOD  ALL       00043872
582363.31000 4196487.94000 2.1923210e-03    45.30    45.30     1.50  PERIOD  ALL       00043872
582370.29000 4196501.65000 2.0242250e-03    45.28    45.28     1.50  PERIOD  ALL       00043872
582391.97000 4196503.39000 2.1724170e-03    44.87    44.87     1.50  PERIOD  ALL       00043872
582399.70000 4196499.40000 2.3060840e-03    44.71    44.71     1.50  PERIOD  ALL       00043872
582393.47000 4196480.96000 2.6128420e-03    45.34    45.34     1.50  PERIOD  ALL       00043872
582387.74000 4196467.00000 2.9291760e-03    45.33    45.33     1.50  PERIOD  ALL       00043872
582421.89000 4196489.43000 2.7269630e-03    44.07    44.07     1.50  PERIOD  ALL       00043872
582424.63000 4196473.48000 3.1983300e-03    44.16    44.16     1.50  PERIOD  ALL       00043872
582437.84000 4196503.39000 2.5980920e-03    42.57    43.89     1.50  PERIOD  ALL       00043872
582445.32000 4196504.89000 2.6437820e-03    42.18    43.53     1.50  PERIOD  ALL       00043872
582443.07000 4196481.46000 3.1911640e-03    43.50    43.50     1.50  PERIOD  ALL       00043872
582450.30000 4196483.20000 3.2328270e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
582465.26000 4196500.90000 2.9442480e-03    42.12    42.12     1.50  PERIOD  ALL       00043872
582468.75000 4196486.19000 3.3789920e-03    42.28    42.28     1.50  PERIOD  ALL       00043872
582509.37000 4196522.58000 2.9069730e-03    38.62    38.62     1.50  PERIOD  ALL       00043872
582526.82000 4196521.59000 3.0904320e-03    38.60    38.60     1.50  PERIOD  ALL       00043872
582512.61000 4196503.89000 3.3790730e-03    39.04    39.04     1.50  PERIOD  ALL       00043872
582513.86000 4196494.92000 3.6508320e-03    39.11    39.11     1.50  PERIOD  ALL       00043872
582535.05000 4196503.64000 3.6221130e-03    38.60    38.60     1.50  PERIOD  ALL       00043872
582535.05000 4196495.17000 3.8819160e-03    38.62    38.62     1.50  PERIOD  ALL       00043872
582519.84000 4196476.47000 4.4256310e-03    38.85    49.84     1.50  PERIOD  ALL       00043872
582540.78000 4196477.22000 4.6620630e-03    38.79    49.84     1.50  PERIOD  ALL       00043872
582580.75000 4196518.21000 3.6093600e-03    36.98    36.98     1.50  PERIOD  ALL       00043872
582597.50000 4196518.93000 3.7456480e-03    36.97    36.97     1.50  PERIOD  ALL       00043872
582576.07000 4196499.48000 4.1264900e-03    36.72    36.72     1.50  PERIOD  ALL       00043872
582575.71000 4196493.00000 4.3453320e-03    36.67    36.67     1.50  PERIOD  ALL       00043872
582599.12000 4196500.02000 4.3770290e-03    37.22    37.22     1.50  PERIOD  ALL       00043872
582599.84000 4196490.84000 4.7159140e-03    37.24    37.24     1.50  PERIOD  ALL       00043872
582574.99000 4196473.73000 5.1576010e-03    36.97    49.84     1.50  PERIOD  ALL       00043872
582591.74000 4196474.27000 5.3014460e-03    36.99    36.99     1.50  PERIOD  ALL       00043872
582344.44000 4196558.03000 1.2881530e-03    40.16    44.94     1.50  PERIOD  ALL       00043872
582344.73000 4196572.40000 1.1937940e-03    40.12    40.12     1.50  PERIOD  ALL       00043872
582343.56000 4196589.70000 1.0883360e-03    39.87    39.87     1.50  PERIOD  ALL       00043872
582363.21000 4196570.64000 1.2861340e-03    40.35    40.35     1.50  PERIOD  ALL       00043872
582371.13000 4196570.64000 1.3230430e-03    40.38    40.38     1.50  PERIOD  ALL       00043872
582363.79000 4196593.81000 1.1422070e-03    39.52    39.52     1.50  PERIOD  ALL       00043872
582372.01000 4196593.22000 1.1796400e-03    39.63    39.63     1.50  PERIOD  ALL       00043872
582388.43000 4196597.04000 1.2293050e-03    40.07    40.07     1.50  PERIOD  ALL       00043872
582390.19000 4196586.18000 1.3065770e-03    40.18    40.18     1.50  PERIOD  ALL       00043872
582389.31000 4196575.04000 1.3800740e-03    40.28    43.25     1.50  PERIOD  ALL       00043872
582427.14000 4196577.97000 1.5630320e-03    40.69    40.69     1.50  PERIOD  ALL       00043872
582443.27000 4196577.39000 1.6624230e-03    40.69    40.69     1.50  PERIOD  ALL       00043872
582425.09000 4196560.96000 1.7030930e-03    40.71    40.71     1.50  PERIOD  ALL       00043872
582427.14000 4196552.46000 1.8018340e-03    40.73    43.10     1.50  PERIOD  ALL       00043872
582444.44000 4196555.39000 1.8879060e-03    40.47    40.47     1.50  PERIOD  ALL       00043872
582453.24000 4196556.27000 1.9389470e-03    40.32    40.32     1.50  PERIOD  ALL       00043872
582489.33000 4196555.69000 2.1938040e-03    38.28    38.28     1.50  PERIOD  ALL       00043872
582484.65000 4196569.19000 1.9962860e-03    38.39    38.39     1.50  PERIOD  ALL       00043872
582496.71000 4196570.63000 2.0590830e-03    38.32    38.32     1.50  PERIOD  ALL       00043872
582506.98000 4196569.91000 2.1349800e-03    38.27    38.27     1.50  PERIOD  ALL       00043872
582518.87000 4196567.93000 2.2374040e-03    38.19    38.19     1.50  PERIOD  ALL       00043872
582516.53000 4196556.41000 2.3803730e-03    38.13    38.13     1.50  PERIOD  ALL       00043872
582535.80000 4196557.31000 2.4899180e-03    36.96    36.96     1.50  PERIOD  ALL       00043872
582530.57000 4196570.27000 2.2743210e-03    37.33    37.33     1.50  PERIOD  ALL       00043872
582543.72000 4196571.36000 2.3361360e-03    36.99    36.99     1.50  PERIOD  ALL       00043872
582556.87000 4196572.08000 2.3999680e-03    36.92    36.92     1.50  PERIOD  ALL       00043872
582567.32000 4196570.09000 2.4843630e-03    36.90    36.90     1.50  PERIOD  ALL       00043872
582561.19000 4196558.21000 2.6340410e-03    36.82    36.82     1.50  PERIOD  ALL       00043872
582581.90000 4196569.91000 2.5537950e-03    36.14    36.14     1.50  PERIOD  ALL       00043872
582593.43000 4196571.17000 2.5857340e-03    36.01    36.01     1.50  PERIOD  ALL       00043872
582604.60000 4196569.19000 2.6638770e-03    36.03    36.03     1.50  PERIOD  ALL       00043872
582616.48000 4196567.75000 2.7335810e-03    35.92    35.92     1.50  PERIOD  ALL       00043872
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582579.92000 4196557.49000 2.7443530e-03    36.12    36.12     1.50  PERIOD  ALL       00043872
582607.30000 4196553.88000 2.9469240e-03    35.89    35.89     1.50  PERIOD  ALL       00043872
582667.79000 4196561.35000 2.9258970e-03    35.94    35.94     1.50  PERIOD  ALL       00043872
582689.19000 4196564.74000 2.8108680e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582712.92000 4196566.64000 2.7100930e-03    34.67    34.67     1.50  PERIOD  ALL       00043872
582690.04000 4196544.61000 3.1567560e-03    35.37    35.37     1.50  PERIOD  ALL       00043872
582665.67000 4196523.63000 3.8185300e-03    35.90    35.90     1.50  PERIOD  ALL       00043872
582691.10000 4196523.84000 3.5624170e-03    35.11    35.11     1.50  PERIOD  ALL       00043872
582709.53000 4196522.78000 3.4475480e-03    34.79    34.79     1.50  PERIOD  ALL       00043872
582731.36000 4196522.14000 3.3166310e-03    34.77    34.77     1.50  PERIOD  ALL       00043872
582750.64000 4196522.99000 3.1842170e-03    34.90    34.90     1.50  PERIOD  ALL       00043872
582771.20000 4196517.06000 3.1548790e-03    35.50    35.50     1.50  PERIOD  ALL       00043872
582691.10000 4196507.95000 3.9075000e-03    34.83    34.83     1.50  PERIOD  ALL       00043872
582688.98000 4196578.72000 2.6021940e-03    34.60    34.60     1.50  PERIOD  ALL       00043872
582749.57000 4196499.70000 3.5956570e-03    35.30    35.30     1.50  PERIOD  ALL       00043872
582750.42000 4196479.14000 3.9876930e-03    35.09    35.09     1.50  PERIOD  ALL       00043872
582731.99000 4196470.67000 4.3562410e-03    34.73    34.73     1.50  PERIOD  ALL       00043872
582713.97000 4196470.46000 4.5621460e-03    34.72    34.72     1.50  PERIOD  ALL       00043872
582691.72000 4196480.20000 4.5753270e-03    34.84    34.84     1.50  PERIOD  ALL       00043872
582691.33000 4196465.17000 5.0024560e-03    35.14    35.14     1.50  PERIOD  ALL       00043872
582655.76000 4196468.88000 5.5476840e-03    35.81    35.81     1.50  PERIOD  ALL       00043872
582673.94000 4196469.17000 5.1638490e-03    35.72    35.72     1.50  PERIOD  ALL       00043872
582658.37000 4196433.11000 6.7885940e-03    35.85    35.85     1.50  PERIOD  ALL       00043872
582674.90000 4196431.73000 6.4495380e-03    35.74    35.74     1.50  PERIOD  ALL       00043872
582692.82000 4196431.12000 6.0978440e-03    35.09    35.09     1.50  PERIOD  ALL       00043872
582745.49000 4196432.65000 5.1609000e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582724.20000 4196430.51000 5.5606600e-03    34.70    34.70     1.50  PERIOD  ALL       00043872
582726.81000 4196408.31000 6.2610290e-03    34.78    34.78     1.50  PERIOD  ALL       00043872
582739.21000 4196387.87000 6.7145960e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582714.01000 4196386.96000 7.4289810e-03    34.77    34.77     1.50  PERIOD  ALL       00043872
582693.47000 4196394.35000 7.6611780e-03    34.93    40.93     1.50  PERIOD  ALL       00043872
582668.79000 4196377.78000 9.5081160e-03    35.88    51.10     1.50  PERIOD  ALL       00043872
582690.59000 4196381.02000 8.4611780e-03    35.06    51.03     1.50  PERIOD  ALL       00043872
582691.61000 4196446.71000 5.5811590e-03    35.43    35.43     1.50  PERIOD  ALL       00043872
582693.64000 4196419.51000 6.5268480e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582681.46000 4196345.62000 1.1392530e-02    35.85    51.10     1.50  PERIOD  ALL       00043872
582694.86000 4196362.26000 9.4443610e-03    35.33    51.10     1.50  PERIOD  ALL       00043872
582695.26000 4196343.18000 1.0706270e-02    35.12    51.10     1.50  PERIOD  ALL       00043872
582730.59000 4196341.96000 8.9896680e-03    34.92    44.98     1.50  PERIOD  ALL       00043872
582712.72000 4196340.75000 9.9071170e-03    34.80    51.10     1.50  PERIOD  ALL       00043872
582694.86000 4196326.94000 1.2026130e-02    35.31    51.10     1.50  PERIOD  ALL       00043872
582844.74000 4196481.31000 3.1319780e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582893.93000 4196475.37000 2.8196750e-03    35.63    35.63     1.50  PERIOD  ALL       00043872
582962.53000 4196348.78000 3.2971400e-03    36.21    36.21     1.50  PERIOD  ALL       00043872
582984.06000 4196390.20000 2.7437400e-03    35.72    35.72     1.50  PERIOD  ALL       00043872
582990.96000 4196440.96000 2.3633130e-03    35.40    35.40     1.50  PERIOD  ALL       00043872
582948.13000 4196291.48000 4.0882380e-03    36.62    36.62     1.50  PERIOD  ALL       00043872
583008.88000 4195915.35000 3.2103450e-03    38.44    38.44     1.50  PERIOD  ALL       00043872
582977.17000 4195892.70000 3.1503470e-03    38.24    38.24     1.50  PERIOD  ALL       00043872
583020.23000 4195884.58000 2.8375320e-03    38.25    38.25     1.50  PERIOD  ALL       00043872
582962.96000 4195845.99000 2.6325280e-03    38.54    38.54     1.50  PERIOD  ALL       00043872
582931.68000 4195832.99000 2.5386580e-03    38.07    38.16     1.50  PERIOD  ALL       00043872
582904.67000 4195758.12000 1.6666540e-03    38.69    38.69     1.50  PERIOD  ALL       00043872
582929.36000 4195775.08000 1.8500220e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
582955.30000 4195782.31000 1.9215700e-03    38.82    38.82     1.50  PERIOD  ALL       00043872
582975.76000 4195804.26000 2.1324710e-03    38.64    38.64     1.50  PERIOD  ALL       00043872
581974.48000 4196230.19000 1.1668730e-03    49.44   239.60     1.50  PERIOD  ALL       00043872
582000.84000 4196240.46000 1.2122950e-03    48.02   239.60     1.50  PERIOD  ALL       00043872
581989.04000 4196219.92000 1.3509190e-03    48.96   239.60     1.50  PERIOD  ALL       00043872
581875.50000 4196239.39000 7.6137290e-04    50.50   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196330.59000 4.2236870e-04    50.54   239.60     1.50  PERIOD  ALL       00043872
581868.94000 4196334.74000 4.2677030e-04    49.83   239.60     1.50  PERIOD  ALL       00043872
581881.72000 4196337.50000 4.3904730e-04    48.90   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196297.43000 5.0749170e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581828.45000 4196325.17000 3.9697240e-04    51.70   239.60     1.50  PERIOD  ALL       00043872
581839.13000 4196330.64000 3.9783470e-04    51.27   239.60     1.50  PERIOD  ALL       00043872
581848.13000 4196290.25000 5.1039950e-04    50.57   239.60     1.50  PERIOD  ALL       00043872
581843.73000 4196366.54000 3.3882860e-04    50.95   239.60     1.50  PERIOD  ALL       00043872
581855.07000 4196368.89000 3.4670300e-04    50.44   239.60     1.50  PERIOD  ALL       00043872
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581866.14000 4196373.32000 3.5161820e-04    49.96   239.60     1.50  PERIOD  ALL       00043872
581849.14000 4196393.05000 3.0701950e-04    50.43   239.60     1.50  PERIOD  ALL       00043872
581862.79000 4196398.11000 3.1341540e-04    49.88   239.60     1.50  PERIOD  ALL       00043872
581918.46000 4196386.85000 3.9318700e-04    48.65   239.60     1.50  PERIOD  ALL       00043872
581902.26000 4196417.16000 3.2932410e-04    49.41   239.60     1.50  PERIOD  ALL       00043872
581910.45000 4196402.67000 3.5830580e-04    49.10   239.60     1.50  PERIOD  ALL       00043872
581895.74000 4196442.96000 2.9426910e-04    49.52   239.60     1.50  PERIOD  ALL       00043872
581885.31000 4196457.98000 2.7099260e-04    49.75   239.60     1.50  PERIOD  ALL       00043872
581928.85000 4196461.51000 3.1063770e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581844.07000 4196437.28000 2.5462260e-04    50.76   239.60     1.50  PERIOD  ALL       00043872
581879.44000 4196475.56000 2.5309400e-04    49.84   239.60     1.50  PERIOD  ALL       00043872
581873.88000 4196494.74000 2.3740500e-04    49.73   239.60     1.50  PERIOD  ALL       00043872
581910.07000 4196515.59000 2.5643690e-04    49.43   239.60     1.50  PERIOD  ALL       00043872
581912.06000 4196492.75000 2.7054640e-04    49.71   239.60     1.50  PERIOD  ALL       00043872
581885.94000 4196504.72000 2.4166640e-04    49.55   239.60     1.50  PERIOD  ALL       00043872
581916.78000 4196518.43000 2.6104500e-04    49.40   239.60     1.50  PERIOD  ALL       00043872
581931.94000 4196530.87000 2.6933590e-04    49.22   239.60     1.50  PERIOD  ALL       00043872
581951.60000 4196541.15000 2.8440000e-04    48.80   239.60     1.50  PERIOD  ALL       00043872
581965.85000 4196564.96000 2.8873610e-04    48.25   239.60     1.50  PERIOD  ALL       00043872
581878.20000 4196549.30000 2.1830870e-04    49.25   239.60     1.50  PERIOD  ALL       00043872
581894.45000 4196559.42000 2.2727150e-04    48.97   239.60     1.50  PERIOD  ALL       00043872
581912.85000 4196572.30000 2.3804740e-04    48.61   239.60     1.50  PERIOD  ALL       00043872
581932.02000 4196584.57000 2.5046250e-04    48.24   239.60     1.50  PERIOD  ALL       00043872
581955.28000 4196590.58000 2.6854010e-04    47.86   239.60     1.50  PERIOD  ALL       00043872
581974.26000 4196604.31000 2.8048270e-04    47.34   239.60     1.50  PERIOD  ALL       00043872
581960.52000 4196631.52000 2.5948930e-04    45.94   239.60     1.50  PERIOD  ALL       00043872
581946.79000 4196621.04000 2.5190360e-04    46.17   239.60     1.50  PERIOD  ALL       00043872
581926.07000 4196607.05000 2.3956710e-04    46.78   239.60     1.50  PERIOD  ALL       00043872
581953.78000 4196662.48000 2.4516890e-04    45.14   239.60     1.50  PERIOD  ALL       00043872
581944.04000 4196677.71000 2.3456490e-04    45.37   239.60     1.50  PERIOD  ALL       00043872
581935.31000 4196689.20000 2.2626300e-04    45.59   239.60     1.50  PERIOD  ALL       00043872
581914.58000 4196649.50000 2.2140830e-04    46.35   239.60     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on B- Non-Residential on A,C,D,E - Off-Site Preschool

HARP Project Summary Report 12/6/2022 12:01:09 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC3_PS
Project Output Directory: C:\HARP2\PROJECTS\Not Used and OLD\NOT USED -TWC3_PS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	
Multi	Annual Ems	MaxHr Ems	MWAF		
	(lbs/yr)	(lbs/hr)			
SITE_A	0	0	9901	DieselExhPM	1
	53.1	0	1		
SITE_B	0	0	9901	DieselExhPM	1
	46.39	0	1		
SITE_C	0	0	9901	DieselExhPM	1
	9.09	0	1		
SITE_D	0	0	9901	DieselExhPM	1
	18.44	0	1		
SITE_E	0	0	9901	DieselExhPM	1
	10.65	0	1		
BDWY	0	0	9901	DieselExhPM	1
	1.06	0	1		
MAIN	0	0	9901	DieselExhPM	1
	1.32	0	1		
CIVIC	0	0	9901	DieselExhPM	1
	1.06	0	1		
YGNO	0	0	9901	DieselExhPM	1
	1.06	0	1		
PARK	0	0	9901	DieselExhPM	1
	0.79	0	1		

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION

Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1		5			

HARP2 - HRACalc (dated 22118) 12/6/2022 12:30:29 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 3
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

```
**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for
details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC3_PS\hra\TWC3_PS_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\PROJECTS\TWC3_PS\hra\TWC3_PS_Cancer_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 12:30:58 PM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	10	ALL	581896	4195456	2.9717000e-08
2	1	ALL	581887	4195456	2.9679000e-08
3	11	ALL	581901	4195456	2.9568000e-08
4	9	ALL	581892	4195456	2.9561000e-08
5	12	ALL	581905	4195456	2.9420000e-08
6	2	ALL	581910	4195456	2.9272000e-08
7	85	ALL	581885	4195451	2.9199000e-08
8	13	ALL	581914	4195456	2.9071000e-08
9	14	ALL	581919	4195455	2.8873000e-08
10	84	ALL	581883	4195447	2.8708000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 12:31:19 PM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	10	ALL	581896	4195456	7.6351000e-05
2	1	ALL	581887	4195456	7.6253000e-05
3	11	ALL	581901	4195456	7.5966000e-05
4	9	ALL	581892	4195456	7.5949000e-05
5	12	ALL	581905	4195456	7.5588000e-05
6	2	ALL	581910	4195456	7.5206000e-05
7	85	ALL	581885	4195451	7.5018000e-05
8	13	ALL	581914	4195456	7.4692000e-05
9	14	ALL	581919	4195455	7.4183000e-05
10	84	ALL	581883	4195447	7.3758000e-05

```
* AERMOD (22112 ):  HARP GENERATED FILE
      12/06/22
* AERMET ( 14134):
      12:29:45
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF    85 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y      AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE     GRP
     NUM HRS   NET ID
* _____________  _____________  _____________   _______   _______   _______  _______
_________  _________  _________
  581887.28000 4195455.65000 3.8126610e-04    53.15   198.92     1.50  PERIOD  ALL
    00043872
  581909.72000 4195456.02000 3.7602930e-04    52.26   198.92     1.50  PERIOD  ALL
    00043872
  581923.66000 4195455.11000 3.6848180e-04    51.85   198.92     1.50  PERIOD  ALL
    00043872
  581964.73000 4195436.83000 3.2826070e-04    50.37   198.92     1.50  PERIOD  ALL
    00043872
  581990.43000 4195436.29000 3.1891070e-04    50.38   198.92     1.50  PERIOD  ALL
    00043872
  581990.25000 4195361.56000 2.3984430e-04    54.41   198.92     1.50  PERIOD  ALL
    00043872
  581873.17000 4195364.27000 2.7165970e-04    53.75   198.92     1.50  PERIOD  ALL
    00043872
  581851.63000 4195376.03000 2.9067080e-04    53.50   198.92     1.50  PERIOD  ALL
    00043872
  581891.77000 4195455.72000 3.7974630e-04    52.92   198.92     1.50  PERIOD  ALL
    00043872
  581896.26000 4195455.80000 3.8175720e-04    52.72   198.92     1.50  PERIOD  ALL
    00043872
  581900.74000 4195455.87000 3.7983160e-04    52.56   198.92     1.50  PERIOD  ALL
    00043872
  581905.23000 4195455.95000 3.7793830e-04    52.41   198.92     1.50  PERIOD  ALL
    00043872
  581914.37000 4195455.72000 3.7345920e-04    52.14   198.92     1.50  PERIOD  ALL
    00043872
  581919.01000 4195455.41000 3.7091250e-04    52.02   198.92     1.50  PERIOD  ALL
    00043872
  581928.22000 4195453.08000 3.6353770e-04    51.69   198.92     1.50  PERIOD  ALL
    00043872
  581932.79000 4195451.05000 3.5867470e-04    51.54   198.92     1.50  PERIOD  ALL
    00043872
  581937.35000 4195449.02000 3.5393380e-04    51.40   198.92     1.50  PERIOD  ALL
    00043872
  581941.91000 4195446.99000 3.4932150e-04    51.24   198.92     1.50  PERIOD  ALL
    00043872
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581946.48000 4195444.95000 3.4484960e-04    51.07   198.92     1.50  PERIOD  ALL
  00043872
581951.04000 4195442.92000 3.4052280e-04    50.89   198.92     1.50  PERIOD  ALL
  00043872
581955.60000 4195440.89000 3.3631960e-04    50.71   198.92     1.50  PERIOD  ALL
  00043872
581960.17000 4195438.86000 3.3228420e-04    50.51   198.92     1.50  PERIOD  ALL
  00043872
581969.01000 4195436.74000 3.2676760e-04    50.29   198.92     1.50  PERIOD  ALL
  00043872
581973.30000 4195436.65000 3.2518800e-04    50.27   198.92     1.50  PERIOD  ALL
  00043872
581977.58000 4195436.56000 3.2361560e-04    50.27   198.92     1.50  PERIOD  ALL
  00043872
581981.86000 4195436.47000 3.2203820e-04    50.29   198.92     1.50  PERIOD  ALL
  00043872
581986.15000 4195436.38000 3.2046880e-04    50.33   198.92     1.50  PERIOD  ALL
  00043872
581990.42000 4195431.31000 3.1285240e-04    50.51   198.92     1.50  PERIOD  ALL
  00043872
581990.41000 4195426.33000 3.0678140e-04    50.76   198.92     1.50  PERIOD  ALL
  00043872
581990.39000 4195421.34000 3.0081520e-04    51.06   198.92     1.50  PERIOD  ALL
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581990.38000 4195416.36000 2.9476220e-04    51.53   198.92     1.50  PERIOD  ALL
  00043872
581990.37000 4195411.38000 2.8892690e-04    51.99   198.92     1.50  PERIOD  ALL
  00043872
581990.36000 4195406.40000 2.8335770e-04    52.40   198.92     1.50  PERIOD  ALL
  00043872
581990.35000 4195401.42000 2.7797460e-04    52.78   198.92     1.50  PERIOD  ALL
  00043872
581990.33000 4195396.43000 2.7283640e-04    52.96   198.92     1.50  PERIOD  ALL
  00043872
581990.32000 4195391.45000 2.6807820e-04    53.13   198.92     1.50  PERIOD  ALL
  00043872
581990.31000 4195386.47000 2.6363380e-04    53.16   198.92     1.50  PERIOD  ALL
  00043872
581990.30000 4195381.49000 2.5930050e-04    53.19   198.92     1.50  PERIOD  ALL
  00043872
581990.29000 4195376.51000 2.5496720e-04    53.31   198.92     1.50  PERIOD  ALL
  00043872
581990.27000 4195371.52000 2.4998440e-04    53.44   198.92     1.50  PERIOD  ALL
  00043872
581990.26000 4195366.54000 2.4542530e-04    53.91   198.92     1.50  PERIOD  ALL
  00043872
581985.37000 4195361.67000 2.3988400e-04    54.91   198.92     1.50  PERIOD  ALL
  00043872
581980.49000 4195361.79000 2.4044490e-04    55.04   198.92     1.50  PERIOD  ALL
  00043872
```

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581975.61000 4195361.90000 2.4116800e-04    55.06   198.92     1.50  PERIOD  ALL
  00043872
581970.74000 4195362.01000 2.4210730e-04    54.95   198.92     1.50  PERIOD  ALL
  00043872
581965.86000 4195362.13000 2.4320950e-04    54.77   198.92     1.50  PERIOD  ALL
  00043872
581960.98000 4195362.24000 2.4441820e-04    54.54   198.92     1.50  PERIOD  ALL
  00043872
581956.10000 4195362.35000 2.4565560e-04    54.33   198.92     1.50  PERIOD  ALL
  00043872
581951.22000 4195362.46000 2.4692140e-04    54.14   198.92     1.50  PERIOD  ALL
  00043872
581946.34000 4195362.58000 2.4815180e-04    54.00   198.92     1.50  PERIOD  ALL
  00043872
581941.47000 4195362.69000 2.5230330e-04    53.90   198.92     1.50  PERIOD  ALL
  00043872
581936.59000 4195362.80000 2.5360150e-04    53.84   198.92     1.50  PERIOD  ALL
  00043872
581931.71000 4195362.92000 2.5499090e-04    53.74   198.92     1.50  PERIOD  ALL
  00043872
581926.83000 4195363.03000 2.5637200e-04    53.65   198.92     1.50  PERIOD  ALL
  00043872
581921.95000 4195363.14000 2.5773510e-04    53.60   198.92     1.50  PERIOD  ALL
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581917.07000 4195363.25000 2.5904790e-04    53.60   198.92     1.50  PERIOD  ALL
  00043872
581912.20000 4195363.37000 2.6033520e-04    53.64   198.92     1.50  PERIOD  ALL
  00043872
581907.32000 4195363.48000 2.6165860e-04    53.67   198.92     1.50  PERIOD  ALL
  00043872
581902.44000 4195363.59000 2.6300970e-04    53.70   198.92     1.50  PERIOD  ALL
  00043872
581897.56000 4195363.71000 2.6441090e-04    53.70   198.92     1.50  PERIOD  ALL
  00043872
581892.68000 4195363.82000 2.6583400e-04    53.70   198.92     1.50  PERIOD  ALL
  00043872
581887.81000 4195363.93000 2.6726670e-04    53.71   198.92     1.50  PERIOD  ALL
  00043872
581882.93000 4195364.04000 2.6873040e-04    53.71   198.92     1.50  PERIOD  ALL
  00043872
581878.05000 4195364.16000 2.7022220e-04    53.71   198.92     1.50  PERIOD  ALL
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581868.86000 4195366.62000 2.7543320e-04    53.60   198.92     1.50  PERIOD  ALL
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581864.55000 4195368.97000 2.7931730e-04    53.43   198.92     1.50  PERIOD  ALL
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581860.25000 4195371.33000 2.8359860e-04    53.32   198.92     1.50  PERIOD  ALL
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581855.94000 4195373.68000 2.8738830e-04    53.31   198.92     1.50  PERIOD  ALL
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581853.61000 4195380.45000 2.9544210e-04    53.26   198.92     1.50  PERIOD  ALL
  00043872
581855.59000 4195384.88000 2.9957480e-04    53.31   198.92     1.50  PERIOD  ALL
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581857.57000 4195389.30000 3.0378070e-04    53.36   198.92     1.50  PERIOD  ALL
  00043872
581859.55000 4195393.72000 3.0793080e-04    53.39   198.92     1.50  PERIOD  ALL
  00043872
581861.53000 4195398.15000 3.1264380e-04    53.37   198.92     1.50  PERIOD  ALL
  00043872
581863.51000 4195402.57000 3.1700320e-04    53.41   198.92     1.50  PERIOD  ALL
  00043872
581865.49000 4195406.99000 3.2162760e-04    53.45   198.92     1.50  PERIOD  ALL
  00043872
581867.47000 4195411.42000 3.2647620e-04    53.43   198.92     1.50  PERIOD  ALL
  00043872
581869.45000 4195415.84000 3.3142850e-04    53.40   198.92     1.50  PERIOD  ALL
  00043872
581871.44000 4195420.26000 3.3634350e-04    53.45   198.92     1.50  PERIOD  ALL
  00043872
581873.42000 4195424.69000 3.4118190e-04    53.60   198.92     1.50  PERIOD  ALL
  00043872
581875.40000 4195429.11000 3.4622800e-04    53.69   198.92     1.50  PERIOD  ALL
  00043872
581877.38000 4195433.53000 3.5161110e-04    53.67   198.92     1.50  PERIOD  ALL
  00043872
581879.36000 4195437.96000 3.5715680e-04    53.64   198.92     1.50  PERIOD  ALL
  00043872
581881.34000 4195442.38000 3.6281140e-04    53.61   198.92     1.50  PERIOD  ALL
  00043872
581883.32000 4195446.80000 3.6878900e-04    53.49   198.92     1.50  PERIOD  ALL
  00043872
581885.30000 4195451.23000 3.7509180e-04    53.24   198.92     1.50  PERIOD  ALL
  00043872
```

Unmitigated Residences on B- Non-Residential on A,C,D,E - Off-Site Elementary

HARP Project Summary Report 12/6/2022 12:27:08 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC3_ES
Project Output Directory: C:\HARP2\PROJECTS\TWC3_ES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	0	0	9901	DieselExhPM	1	53.1	0	1
SITE_B	0	0	9901	DieselExhPM	1	46.39	0	1
SITE_C	0	0	9901	DieselExhPM	1	9.09	0	1
SITE_D	0	0	9901	DieselExhPM	1	18.44	0	1
SITE_E	0	0	9901	DieselExhPM	1	10.65	0	1
BDWY	0	0	9901	DieselExhPM	1	1.06	0	1
MAIN	0	0	9901	DieselExhPM	1	1.32	0	1
CIVIC	0	0	9901	DieselExhPM	1	1.06	0	1
YGNO	0	0	9901	DieselExhPM	1	1.06	0	1
PARK	0	0	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 5
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC3_ES\hra\TWC3_ES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to:
C:\HARP2\PROJECTS\TWC3_ES\hra\TWC3_ES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 12:59:00 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	383	ALL	582788	4196175	7.0039000e-07
2	384	ALL	582787	4196180	7.0027000e-07
3	158	ALL	582789	4196170	6.9991000e-07
4	385	ALL	582786	4196184	6.9944000e-07
5	386	ALL	582786	4196189	6.9796000e-07
6	387	ALL	582785	4196193	6.9584000e-07
7	388	ALL	582784	4196198	6.9321000e-07
8	389	ALL	582783	4196203	6.9001000e-07
9	390	ALL	582782	4196207	6.8640000e-07
10	391	ALL	582781	4196212	6.8237000e-07

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 12:26:52 PM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	383	ALL	582788	4196175	2.4759000e-03
2	384	ALL	582787	4196180	2.4755000e-03
3	158	ALL	582789	4196170	2.4743000e-03
4	385	ALL	582786	4196184	2.4725000e-03
5	386	ALL	582786	4196189	2.4673000e-03
6	387	ALL	582785	4196193	2.4597000e-03
7	388	ALL	582784	4196198	2.4504000e-03
8	389	ALL	582783	4196203	2.4391000e-03
9	390	ALL	582782	4196207	2.4263000e-03
10	391	ALL	582781	4196212	2.4121000e-03

* MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN
* PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 643 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)
* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM HRS NET ID
*

581750.36000	4196740.84000	1.3019740e-04	43.45	239.60	1.50	PERIOD	ALL	00043872		
581809.53000	4196562.92000	1.7435280e-04	48.69	239.60	1.50	PERIOD	ALL	00043872		
581675.28000	4196500.08000	1.4926960e-04	47.89	239.60	1.50	PERIOD	ALL	00043872		
581622.23000	4196652.29000	1.0098960e-04	46.83	239.60	1.50	PERIOD	ALL	00043872		
581627.95000	4196675.14000	9.9372950e-05	48.00	239.60	1.50	PERIOD	ALL	00043872		
581618.56000	4196709.01000	9.4605350e-05	47.70	239.60	1.50	PERIOD	ALL	00043872		
581751.92000	4196736.16000	1.3094850e-04	43.63	239.60	1.50	PERIOD	ALL	00043872		
581753.47000	4196731.48000	1.3171030e-04	43.82	239.60	1.50	PERIOD	ALL	00043872		
581755.03000	4196726.79000	1.3246400e-04	43.92	239.60	1.50	PERIOD	ALL	00043872		
581756.59000	4196722.11000	1.3323250e-04	43.96	239.60	1.50	PERIOD	ALL	00043872		
581758.15000	4196717.43000	1.3402570e-04	43.99	239.60	1.50	PERIOD	ALL	00043872		
581759.70000	4196712.75000	1.3482140e-04	44.05	239.60	1.50	PERIOD	ALL	00043872		
581761.26000	4196708.07000	1.3564980e-04	44.22	239.60	1.50	PERIOD	ALL	00043872		
581762.82000	4196703.38000	1.3649640e-04	44.31	239.60	1.50	PERIOD	ALL	00043872		
581764.37000	4196698.70000	1.3735760e-04	44.38	239.60	1.50	PERIOD	ALL	00043872		
581765.93000	4196694.02000	1.3823310e-04	44.42	239.60	1.50	PERIOD	ALL	00043872		
581767.49000	4196689.34000	1.3913900e-04	44.56	239.60	1.50	PERIOD	ALL	00043872		
581769.05000	4196684.66000	1.4005890e-04	44.73	239.60	1.50	PERIOD	ALL	00043872		
581770.60000	4196679.97000	1.4100000e-04	44.85	239.60	1.50	PERIOD	ALL	00043872		
581773.72000	4196670.61000	1.4295230e-04	44.98	239.60	1.50	PERIOD	ALL	00043872		
581775.27000	4196665.93000	1.4396230e-04	45.11	239.60	1.50	PERIOD	ALL	00043872		
581776.83000	4196661.24000	1.4500290e-04	45.30	239.60	1.50	PERIOD	ALL	00043872		
581778.39000	4196656.56000	1.4607060e-04	45.44	239.60	1.50	PERIOD	ALL	00043872		
581779.94000	4196651.88000	1.4715080e-04	45.50	239.60	1.50	PERIOD	ALL	00043872		
581781.50000	4196647.20000	1.4827610e-04	45.59	239.60	1.50	PERIOD	ALL	00043872		
581783.06000	4196642.52000	1.4942460e-04	45.73	239.60	1.50	PERIOD	ALL	00043872		
581784.62000	4196637.83000	1.5058530e-04	45.94	239.60	1.50	PERIOD	ALL	00043872		
581786.17000	4196633.15000	1.5178920e-04	46.17	239.60	1.50	PERIOD	ALL	00043872		
581789.29000	4196623.79000	1.5430360e-04	46.39	239.60	1.50	PERIOD	ALL	00043872		
581790.84000	4196619.11000	1.5561160e-04	46.49	239.60	1.50	PERIOD	ALL	00043872		
581792.40000	4196614.42000	1.5693820e-04	46.66	239.60	1.50	PERIOD	ALL	00043872		
581793.96000	4196609.74000	1.5833050e-04	46.81	239.60	1.50	PERIOD	ALL	00043872		
581795.52000	4196605.06000	1.5974780e-04	46.94	239.60	1.50	PERIOD	ALL	00043872		
581797.07000	4196600.38000	1.6122160e-04	47.06	239.60	1.50	PERIOD	ALL	00043872		
581798.63000	4196595.70000	1.6273750e-04	47.15	239.60	1.50	PERIOD	ALL	00043872		
581800.19000	4196591.01000	1.6429850e-04	47.26	239.60	1.50	PERIOD	ALL	00043872		
581801.74000	4196586.33000	1.6591960e-04	47.31	239.60	1.50	PERIOD	ALL	00043872		
581803.30000	4196581.65000	1.6757370e-04	47.39	239.60	1.50	PERIOD	ALL	00043872		
581804.86000	4196576.97000	1.6928730e-04	47.49	239.60	1.50	PERIOD	ALL	00043872		
581806.42000	4196572.28000	1.7105390e-04	47.62	239.60	1.50	PERIOD	ALL	00043872		
581807.97000	4196567.60000	1.7278410e-04	48.11	239.60	1.50	PERIOD	ALL	00043872		
581805.06000	4196560.83000	1.7272460e-04	48.67	239.60	1.50	PERIOD	ALL	00043872		
581800.58000	4196558.73000	1.7114560e-04	48.66	239.60	1.50	PERIOD	ALL	00043872		
581796.10000	4196556.64000	1.6961660e-04	48.66	239.60	1.50	PERIOD	ALL	00043872		
581791.63000	4196554.54000	1.6813810e-04	48.70	239.60	1.50	PERIOD	ALL	00043872		
581787.16000	4196552.45000	1.6674080e-04	48.72	239.60	1.50	PERIOD	ALL	00043872		
581782.68000	4196550.35000	1.6540370e-04	48.71	239.60	1.50	PERIOD	ALL	00043872		
581778.20000	4196548.26000	1.6413220e-04	48.72	239.60	1.50	PERIOD	ALL	00043872		
581773.73000	4196546.16000	1.6293590e-04	48.72	239.60	1.50	PERIOD	ALL	00043872		
581769.26000	4196544.07000	1.6178350e-04	48.72	239.60	1.50	PERIOD	ALL	00043872		
581764.78000	4196541.97000	1.6073120e-04	48.67	239.60	1.50	PERIOD	ALL	00043872		
581760.31000	4196539.88000	1.5977450e-04	48.56	239.60	1.50	PERIOD	ALL	00043872		
581755.83000	4196537.78000	1.5881180e-04	48.54	239.60	1.50	PERIOD	ALL	00043872		
581751.35000	4196535.69000	1.5788680e-04	48.55	239.60	1.50	PERIOD	ALL	00043872		
581746.88000	4196533.59000	1.5705340e-04	48.52	239.60	1.50	PERIOD	ALL	00043872		
581742.41000	4196531.50000	1.5630250e-04	48.42	239.60	1.50	PERIOD	ALL	00043872		
581737.93000	4196529.41000	1.5590280e-04	48.21	239.60	1.50	PERIOD	ALL	00043872		
581733.45000	4196527.31000	1.5490070e-04	48.24	239.60	1.50	PERIOD	ALL	00043872		
581728.98000	4196525.22000	1.5421430e-04	48.30	239.60	1.50	PERIOD	ALL	00043872		
581724.51000	4196523.12000	1.5359790e-04	48.27	239.60	1.50	PERIOD	ALL	00043872		
581720.03000	4196521.03000	1.5333290e-04	48.11	239.60	1.50	PERIOD	ALL	00043872		
581715.56000	4196518.93000	1.5283930e-04	47.87	239.60	1.50	PERIOD	ALL	00043872		
581711.08000	4196516.84000	1.5236340e-04	47.64	239.60	1.50	PERIOD	ALL	00043872		
581706.60000	4196514.74000	1.5189980e-04	47.60	239.60	1.50	PERIOD	ALL	00043872		
581702.13000	4196512.65000	1.5144570e-04	47.61	239.60	1.50	PERIOD	ALL	00043872		
581697.66000	4196510.55000	1.5102080e-04	47.67	239.60	1.50	PERIOD	ALL	00043872		

581693.18000	4196508.46000	1.5059880e-04	47.75	239.60	1.50	PERIOD	ALL	00043872
581688.70000	4196506.36000	1.5022970e-04	47.83	239.60	1.50	PERIOD	ALL	00043872
581684.23000	4196504.27000	1.4989280e-04	47.85	239.60	1.50	PERIOD	ALL	00043872
581679.76000	4196502.17000	1.4957070e-04	47.85	239.60	1.50	PERIOD	ALL	00043872
581673.67000	4196504.69000	1.4701770e-04	47.78	239.60	1.50	PERIOD	ALL	00043872
581672.06000	4196509.30000	1.4483760e-04	47.65	239.60	1.50	PERIOD	ALL	00043872
581670.46000	4196513.92000	1.4268450e-04	47.75	239.60	1.50	PERIOD	ALL	00043872
581668.85000	4196518.53000	1.4060860e-04	47.75	239.60	1.50	PERIOD	ALL	00043872
581667.24000	4196523.14000	1.3860320e-04	47.69	239.60	1.50	PERIOD	ALL	00043872
581665.63000	4196527.75000	1.3668150e-04	47.54	239.60	1.50	PERIOD	ALL	00043872
581664.03000	4196532.37000	1.3480930e-04	47.40	239.60	1.50	PERIOD	ALL	00043872
581662.42000	4196536.98000	1.3297410e-04	47.42	239.60	1.50	PERIOD	ALL	00043872
581660.81000	4196541.59000	1.3119140e-04	47.43	239.60	1.50	PERIOD	ALL	00043872
581659.20000	4196546.20000	1.2947460e-04	47.39	239.60	1.50	PERIOD	ALL	00043872
581657.60000	4196550.82000	1.2780620e-04	47.30	239.60	1.50	PERIOD	ALL	00043872
581655.99000	4196555.43000	1.2620650e-04	47.21	239.60	1.50	PERIOD	ALL	00043872
581654.38000	4196560.04000	1.2463270e-04	47.21	239.60	1.50	PERIOD	ALL	00043872
581652.77000	4196564.65000	1.2307690e-04	47.31	239.60	1.50	PERIOD	ALL	00043872
581651.17000	4196569.27000	1.2160540e-04	47.27	239.60	1.50	PERIOD	ALL	00043872
581649.56000	4196573.88000	1.2017900e-04	47.20	239.60	1.50	PERIOD	ALL	00043872
581647.95000	4196578.49000	1.1879440e-04	47.04	239.60	1.50	PERIOD	ALL	00043872
581646.34000	4196583.10000	1.1744590e-04	46.99	239.60	1.50	PERIOD	ALL	00043872
581644.74000	4196587.72000	1.1612120e-04	47.01	239.60	1.50	PERIOD	ALL	00043872
581643.13000	4196592.33000	1.1484560e-04	46.93	239.60	1.50	PERIOD	ALL	00043872
581641.52000	4196596.94000	1.1361200e-04	46.83	239.60	1.50	PERIOD	ALL	00043872
581639.91000	4196601.55000	1.1240810e-04	46.70	239.60	1.50	PERIOD	ALL	00043872
581638.31000	4196606.17000	1.1122660e-04	46.69	239.60	1.50	PERIOD	ALL	00043872
581636.70000	4196610.78000	1.1007530e-04	46.68	239.60	1.50	PERIOD	ALL	00043872
581635.09000	4196615.39000	1.0896110e-04	46.66	239.60	1.50	PERIOD	ALL	00043872
581633.48000	4196620.00000	1.0786640e-04	46.61	239.60	1.50	PERIOD	ALL	00043872
581631.88000	4196624.62000	1.0681950e-04	46.57	239.60	1.50	PERIOD	ALL	00043872
581630.27000	4196629.23000	1.0577560e-04	46.55	239.60	1.50	PERIOD	ALL	00043872
581628.66000	4196633.84000	1.0477780e-04	46.50	239.60	1.50	PERIOD	ALL	00043872
581627.05000	4196638.45000	1.0380310e-04	46.47	239.60	1.50	PERIOD	ALL	00043872
581625.45000	4196643.07000	1.0284180e-04	46.49	239.60	1.50	PERIOD	ALL	00043872
581623.84000	4196647.68000	1.0190540e-04	46.63	239.60	1.50	PERIOD	ALL	00043872
581623.37000	4196656.86000	1.0060250e-04	47.18	239.60	1.50	PERIOD	ALL	00043872
581624.52000	4196661.43000	1.0025030e-04	47.49	239.60	1.50	PERIOD	ALL	00043872
581625.66000	4196666.00000	9.9932610e-05	47.73	239.60	1.50	PERIOD	ALL	00043872
581626.81000	4196670.57000	9.9628110e-05	47.94	239.60	1.50	PERIOD	ALL	00043872
581626.78000	4196679.37000	9.8710450e-05	48.11	239.60	1.50	PERIOD	ALL	00043872
581625.60000	4196683.61000	9.8064130e-05	48.18	239.60	1.50	PERIOD	ALL	00043872
581624.43000	4196687.84000	9.7443630e-05	48.13	239.60	1.50	PERIOD	ALL	00043872
581623.26000	4196692.08000	9.6841210e-05	48.09	239.60	1.50	PERIOD	ALL	00043872
581622.08000	4196696.31000	9.6263460e-05	47.99	239.60	1.50	PERIOD	ALL	00043872
581620.91000	4196700.54000	9.5702570e-05	47.86	239.60	1.50	PERIOD	ALL	00043872
581619.73000	4196704.78000	9.5149820e-05	47.75	239.60	1.50	PERIOD	ALL	00043872
581623.27000	4196710.15000	9.5495260e-05	47.42	239.60	1.50	PERIOD	ALL	00043872
581627.97000	4196711.28000	9.6406340e-05	47.22	239.60	1.50	PERIOD	ALL	00043872
581632.68000	4196712.42000	9.7337340e-05	47.10	239.60	1.50	PERIOD	ALL	00043872
581637.39000	4196713.56000	9.8295900e-05	47.01	239.60	1.50	PERIOD	ALL	00043872
581642.10000	4196714.69000	9.9274460e-05	46.96	239.60	1.50	PERIOD	ALL	00043872
581646.80000	4196715.83000	1.0028020e-04	46.92	239.60	1.50	PERIOD	ALL	00043872
581651.51000	4196716.97000	1.0132800e-04	46.87	239.60	1.50	PERIOD	ALL	00043872
581656.22000	4196718.10000	1.0239590e-04	46.82	239.60	1.50	PERIOD	ALL	00043872
581660.92000	4196719.24000	1.0349730e-04	46.75	239.60	1.50	PERIOD	ALL	00043872
581665.63000	4196720.38000	1.0463720e-04	46.69	239.60	1.50	PERIOD	ALL	00043872
581670.34000	4196721.51000	1.0580280e-04	46.62	239.60	1.50	PERIOD	ALL	00043872
581675.05000	4196722.65000	1.0699930e-04	46.56	239.60	1.50	PERIOD	ALL	00043872
581679.75000	4196723.79000	1.0823410e-04	46.49	239.60	1.50	PERIOD	ALL	00043872
581684.46000	4196724.92000	1.0949770e-04	46.42	239.60	1.50	PERIOD	ALL	00043872
581689.17000	4196726.06000	1.1079340e-04	46.34	239.60	1.50	PERIOD	ALL	00043872
581693.87000	4196727.20000	1.1210770e-04	46.26	239.60	1.50	PERIOD	ALL	00043872
581698.58000	4196728.33000	1.1346660e-04	46.17	239.60	1.50	PERIOD	ALL	00043872
581703.29000	4196729.47000	1.1485300e-04	46.09	239.60	1.50	PERIOD	ALL	00043872
581708.00000	4196730.61000	1.1626910e-04	46.01	239.60	1.50	PERIOD	ALL	00043872
581712.70000	4196731.75000	1.1771730e-04	45.91	239.60	1.50	PERIOD	ALL	00043872
581717.41000	4196732.88000	1.1920430e-04	45.81	239.60	1.50	PERIOD	ALL	00043872
581722.12000	4196734.02000	1.2072020e-04	45.69	239.60	1.50	PERIOD	ALL	00043872
581726.82000	4196735.16000	1.2225220e-04	45.57	239.60	1.50	PERIOD	ALL	00043872
581731.53000	4196736.29000	1.2382430e-04	45.34	239.60	1.50	PERIOD	ALL	00043872
581736.24000	4196737.43000	1.2540650e-04	45.05	239.60	1.50	PERIOD	ALL	00043872
581740.95000	4196738.57000	1.2700920e-04	44.64	239.60	1.50	PERIOD	ALL	00043872
581745.65000	4196739.70000	1.2861500e-04	44.08	239.60	1.50	PERIOD	ALL	00043872

582805.40000	4196436.91000	4.2162530e-03	35.37	35.37	1.50	PERIOD	ALL	00043872
582834.54000	4196444.14000	3.7423980e-03	35.41	35.41	1.50	PERIOD	ALL	00043872
582913.69000	4196437.33000	2.9864060e-03	32.56	36.43	1.50	PERIOD	ALL	00043872
582903.76000	4196315.92000	4.5075240e-03	33.92	36.60	1.50	PERIOD	ALL	00043872
582915.27000	4196261.09000	5.0345380e-03	32.39	36.90	1.50	PERIOD	ALL	00043872
583039.54000	4196294.28000	2.9239280e-03	35.39	89.13	1.50	PERIOD	ALL	00043872
583044.22000	4196234.06000	3.2733010e-03	35.85	89.13	1.50	PERIOD	ALL	00043872
583057.63000	4196185.33000	3.3766480e-03	36.34	89.13	1.50	PERIOD	ALL	00043872
583061.14000	4196168.95000	3.4026370e-03	36.52	89.13	1.50	PERIOD	ALL	00043872
583061.44000	4196145.09000	3.4789070e-03	36.67	89.13	1.50	PERIOD	ALL	00043872
583058.49000	4196112.99000	3.5854780e-03	36.95	89.13	1.50	PERIOD	ALL	00043872
583058.79000	4196100.32000	3.5961000e-03	37.10	88.94	1.50	PERIOD	ALL	00043872
583069.06000	4196057.61000	3.4663090e-03	37.87	37.87	1.50	PERIOD	ALL	00043872
582961.26000	4196011.36000	4.6725920e-03	36.12	38.79	1.50	PERIOD	ALL	00043872
582964.79000	4196075.87000	5.0181600e-03	33.92	37.93	1.50	PERIOD	ALL	00043872
582963.32000	4196113.27000	5.0950160e-03	33.12	37.70	1.50	PERIOD	ALL	00043872
582935.62000	4196209.66000	5.2009770e-03	32.68	36.89	1.50	PERIOD	ALL	00043872
582789.01000	4196170.32000	1.2371270e-02	37.01	42.28	1.50	PERIOD	ALL	00043872
582777.19000	4196234.74000	1.1558800e-02	36.56	44.94	1.50	PERIOD	ALL	00043872
582774.46000	4196298.35000	8.9659570e-03	36.08	36.08	1.50	PERIOD	ALL	00043872
582778.59000	4196350.79000	6.8548490e-03	35.61	35.61	1.50	PERIOD	ALL	00043872
582786.50000	4196395.68000	5.4004560e-03	35.29	35.29	1.50	PERIOD	ALL	00043872
582809.56000	4196437.94000	4.1440930e-03	35.39	35.39	1.50	PERIOD	ALL	00043872
582813.73000	4196438.98000	4.0731390e-03	35.40	35.40	1.50	PERIOD	ALL	00043872
582817.89000	4196440.01000	4.0038480e-03	35.39	35.39	1.50	PERIOD	ALL	00043872
582822.05000	4196441.04000	3.9362380e-03	35.39	35.39	1.50	PERIOD	ALL	00043872
582826.21000	4196442.07000	3.8703010e-03	35.40	35.40	1.50	PERIOD	ALL	00043872
582830.38000	4196443.11000	3.8055510e-03	35.41	35.41	1.50	PERIOD	ALL	00043872
582839.49000	4196443.71000	3.6929760e-03	35.41	35.41	1.50	PERIOD	ALL	00043872
582844.43000	4196443.29000	3.6437420e-03	35.40	35.40	1.50	PERIOD	ALL	00043872
582849.38000	4196442.86000	3.5950510e-03	35.40	35.40	1.50	PERIOD	ALL	00043872
582854.33000	4196442.44000	3.5466030e-03	35.40	35.40	1.50	PERIOD	ALL	00043872
582859.27000	4196442.01000	3.4988470e-03	35.40	35.40	1.50	PERIOD	ALL	00043872
582864.22000	4196441.59000	3.4513600e-03	35.41	35.41	1.50	PERIOD	ALL	00043872
582869.17000	4196441.16000	3.4045510e-03	35.43	35.43	1.50	PERIOD	ALL	00043872
582874.11000	4196440.74000	3.3582710e-03	35.46	35.46	1.50	PERIOD	ALL	00043872
582879.06000	4196440.31000	3.3126420e-03	35.51	35.51	1.50	PERIOD	ALL	00043872
582884.01000	4196439.88000	3.2676370e-03	35.58	35.58	1.50	PERIOD	ALL	00043872
582888.96000	4196439.46000	3.2229470e-03	35.64	35.64	1.50	PERIOD	ALL	00043872
582893.90000	4196439.03000	3.1788330e-03	35.68	35.68	1.50	PERIOD	ALL	00043872
582898.85000	4196438.61000	3.1348800e-03	35.69	35.69	1.50	PERIOD	ALL	00043872
582903.80000	4196438.18000	3.0892990e-03	35.33	35.69	1.50	PERIOD	ALL	00043872
582908.74000	4196437.76000	3.0405830e-03	34.38	35.78	1.50	PERIOD	ALL	00043872
582913.29000	4196432.47000	3.0352370e-03	32.71	36.41	1.50	PERIOD	ALL	00043872
582912.90000	4196427.62000	3.0844210e-03	32.83	36.41	1.50	PERIOD	ALL	00043872
582912.50000	4196422.76000	3.1344040e-03	32.92	36.41	1.50	PERIOD	ALL	00043872
582912.10000	4196417.90000	3.1850610e-03	32.99	36.41	1.50	PERIOD	ALL	00043872
582911.70000	4196413.05000	3.2352660e-03	32.90	36.41	1.50	PERIOD	ALL	00043872
582911.31000	4196408.19000	3.2861710e-03	32.79	36.32	1.50	PERIOD	ALL	00043872
582910.91000	4196403.33000	3.3393370e-03	32.83	36.23	1.50	PERIOD	ALL	00043872
582910.51000	4196398.48000	3.3932490e-03	32.85	36.36	1.50	PERIOD	ALL	00043872
582910.12000	4196393.62000	3.4484440e-03	32.90	36.36	1.50	PERIOD	ALL	00043872
582909.72000	4196388.77000	3.5048510e-03	32.96	36.42	1.50	PERIOD	ALL	00043872
582909.32000	4196383.91000	3.5608640e-03	32.84	36.42	1.50	PERIOD	ALL	00043872
582908.92000	4196379.05000	3.6175320e-03	32.67	36.47	1.50	PERIOD	ALL	00043872
582908.53000	4196374.20000	3.6764490e-03	32.64	36.52	1.50	PERIOD	ALL	00043872
582908.13000	4196369.34000	3.7375770e-03	32.69	36.52	1.50	PERIOD	ALL	00043872
581772.16000	4196675.29000	1.4196690e-04	44.92	239.60	1.50	PERIOD	ALL	00043872
582907.73000	4196364.48000	3.8008880e-03	32.82	36.52	1.50	PERIOD	ALL	00043872
582907.33000	4196359.63000	3.8660300e-03	33.01	36.52	1.50	PERIOD	ALL	00043872
582906.94000	4196354.77000	3.9322930e-03	33.17	36.59	1.50	PERIOD	ALL	00043872
582906.54000	4196349.92000	3.9994040e-03	33.28	36.59	1.50	PERIOD	ALL	00043872
582906.14000	4196345.06000	4.0682160e-03	33.40	36.59	1.50	PERIOD	ALL	00043872
582905.75000	4196340.20000	4.1381340e-03	33.51	36.59	1.50	PERIOD	ALL	00043872
582905.35000	4196335.35000	4.2096940e-03	33.63	36.43	1.50	PERIOD	ALL	00043872
582904.95000	4196330.49000	4.2828020e-03	33.76	36.53	1.50	PERIOD	ALL	00043872
582904.55000	4196325.63000	4.3568660e-03	33.84	36.53	1.50	PERIOD	ALL	00043872
582904.16000	4196320.78000	4.4314070e-03	33.89	36.53	1.50	PERIOD	ALL	00043872
582904.72000	4196311.35000	4.5511470e-03	33.62	36.80	1.50	PERIOD	ALL	00043872
582905.68000	4196306.78000	4.5945440e-03	33.32	36.85	1.50	PERIOD	ALL	00043872
582906.64000	4196302.21000	4.6385060e-03	33.07	36.90	1.50	PERIOD	ALL	00043872
582907.60000	4196297.64000	4.6817990e-03	32.81	36.90	1.50	PERIOD	ALL	00043872
582908.56000	4196293.07000	4.7247000e-03	32.54	36.90	1.50	PERIOD	ALL	00043872
582909.52000	4196288.50000	4.7661550e-03	32.21	36.90	1.50	PERIOD	ALL	00043872

582910.47000	4196283.94000	4.8065010e-03	31.85	36.90	1.50	PERIOD	ALL	00043872
582911.43000	4196279.37000	4.8486500e-03	31.65	36.90	1.50	PERIOD	ALL	00043872
582912.39000	4196274.80000	4.8964540e-03	31.85	36.90	1.50	PERIOD	ALL	00043872
582913.35000	4196270.23000	4.9449170e-03	32.13	36.90	1.50	PERIOD	ALL	00043872
582914.31000	4196265.66000	4.9900060e-03	32.25	36.90	1.50	PERIOD	ALL	00043872
582920.05000	4196262.37000	4.9046510e-03	31.67	36.90	1.50	PERIOD	ALL	00043872
582924.83000	4196263.64000	4.8244010e-03	34.13	36.90	1.50	PERIOD	ALL	00043872
582929.61000	4196264.92000	4.7331140e-03	36.03	36.81	1.50	PERIOD	ALL	00043872
582934.39000	4196266.20000	4.6291860e-03	36.61	36.61	1.50	PERIOD	ALL	00043872
582939.17000	4196267.47000	4.5250450e-03	36.80	36.80	1.50	PERIOD	ALL	00043872
582943.95000	4196268.75000	4.4224320e-03	36.77	36.77	1.50	PERIOD	ALL	00043872
582948.73000	4196270.03000	4.3228180e-03	36.69	36.69	1.50	PERIOD	ALL	00043872
582953.51000	4196271.30000	4.2267490e-03	36.63	36.63	1.50	PERIOD	ALL	00043872
582958.29000	4196272.58000	4.1337650e-03	36.58	36.58	1.50	PERIOD	ALL	00043872
582963.07000	4196273.86000	4.0439010e-03	36.55	36.55	1.50	PERIOD	ALL	00043872
582967.85000	4196275.13000	3.9570460e-03	36.53	36.53	1.50	PERIOD	ALL	00043872
582972.63000	4196276.41000	3.8727120e-03	36.49	36.49	1.50	PERIOD	ALL	00043872
582977.41000	4196277.68000	3.7910950e-03	36.45	36.45	1.50	PERIOD	ALL	00043872
582982.18000	4196278.96000	3.7121560e-03	36.43	36.43	1.50	PERIOD	ALL	00043872
582986.96000	4196280.24000	3.6354130e-03	36.40	36.40	1.50	PERIOD	ALL	00043872
582991.74000	4196281.51000	3.5609740e-03	36.35	36.35	1.50	PERIOD	ALL	00043872
582996.52000	4196282.79000	3.4885760e-03	36.28	36.28	1.50	PERIOD	ALL	00043872
583001.30000	4196284.07000	3.4182370e-03	36.19	36.19	1.50	PERIOD	ALL	00043872
583006.08000	4196285.34000	3.3500040e-03	36.09	36.09	1.50	PERIOD	ALL	00043872
583010.86000	4196286.62000	3.2836480e-03	35.98	88.94	1.50	PERIOD	ALL	00043872
583015.64000	4196287.90000	3.2192580e-03	35.88	89.13	1.50	PERIOD	ALL	00043872
583020.42000	4196289.17000	3.1568000e-03	35.78	89.13	1.50	PERIOD	ALL	00043872
583025.20000	4196290.45000	3.0960850e-03	35.69	89.13	1.50	PERIOD	ALL	00043872
583029.98000	4196291.73000	3.0370940e-03	35.60	89.13	1.50	PERIOD	ALL	00043872
583034.76000	4196293.00000	2.9798150e-03	35.51	89.13	1.50	PERIOD	ALL	00043872
583039.90000	4196289.65000	2.9520730e-03	35.38	89.13	1.50	PERIOD	ALL	00043872
583040.26000	4196285.01000	2.9802480e-03	35.38	89.13	1.50	PERIOD	ALL	00043872
583040.62000	4196280.38000	3.0082030e-03	35.40	89.13	1.50	PERIOD	ALL	00043872
583040.98000	4196275.75000	3.0360250e-03	35.41	89.13	1.50	PERIOD	ALL	00043872
583041.34000	4196271.12000	3.0637490e-03	35.46	89.13	1.50	PERIOD	ALL	00043872
583041.70000	4196266.49000	3.0911780e-03	35.51	89.13	1.50	PERIOD	ALL	00043872
583042.06000	4196261.85000	3.1184540e-03	35.56	89.13	1.50	PERIOD	ALL	00043872
583042.42000	4196257.22000	3.1452890e-03	35.61	89.13	1.50	PERIOD	ALL	00043872
583042.78000	4196252.59000	3.1717720e-03	35.66	89.13	1.50	PERIOD	ALL	00043872
583043.14000	4196247.96000	3.1978410e-03	35.71	89.13	1.50	PERIOD	ALL	00043872
583043.50000	4196243.33000	3.2234680e-03	35.75	89.13	1.50	PERIOD	ALL	00043872
583043.86000	4196238.69000	3.2486670e-03	35.80	89.13	1.50	PERIOD	ALL	00043872
583045.44000	4196229.63000	3.2862050e-03	35.87	89.13	1.50	PERIOD	ALL	00043872
583046.66000	4196225.20000	3.2984250e-03	35.89	89.13	1.50	PERIOD	ALL	00043872
583047.88000	4196220.77000	3.3100370e-03	35.94	89.13	1.50	PERIOD	ALL	00043872
583049.10000	4196216.34000	3.3209850e-03	35.99	89.13	1.50	PERIOD	ALL	00043872
583050.32000	4196211.91000	3.3312120e-03	36.05	89.13	1.50	PERIOD	ALL	00043872
583051.53000	4196207.48000	3.3408590e-03	36.12	89.13	1.50	PERIOD	ALL	00043872
583052.75000	4196203.05000	3.3496750e-03	36.19	89.13	1.50	PERIOD	ALL	00043872
583053.97000	4196198.62000	3.3576000e-03	36.24	89.13	1.50	PERIOD	ALL	00043872
583055.19000	4196194.19000	3.3647530e-03	36.28	89.13	1.50	PERIOD	ALL	00043872
583056.41000	4196189.76000	3.3710860e-03	36.31	89.13	1.50	PERIOD	ALL	00043872
583058.51000	4196181.24000	3.3840350e-03	36.37	89.13	1.50	PERIOD	ALL	00043872
583059.39000	4196177.14000	3.3908740e-03	36.42	89.13	1.50	PERIOD	ALL	00043872
583060.26000	4196173.04000	3.3972580e-03	36.49	89.13	1.50	PERIOD	ALL	00043872
583061.20000	4196164.18000	3.4197840e-03	36.58	89.13	1.50	PERIOD	ALL	00043872
583061.26000	4196159.41000	3.4358870e-03	36.60	89.13	1.50	PERIOD	ALL	00043872
583061.32000	4196154.63000	3.4511450e-03	36.62	89.13	1.50	PERIOD	ALL	00043872
583061.38000	4196149.86000	3.4654790e-03	36.64	89.13	1.50	PERIOD	ALL	00043872
583061.02000	4196140.50000	3.4968150e-03	36.70	89.13	1.50	PERIOD	ALL	00043872
583060.60000	4196135.92000	3.5138990e-03	36.75	89.13	1.50	PERIOD	ALL	00043872
583060.18000	4196131.33000	3.5301380e-03	36.80	89.13	1.50	PERIOD	ALL	00043872
583059.75000	4196126.75000	3.5455090e-03	36.84	89.13	1.50	PERIOD	ALL	00043872
583059.33000	4196122.16000	3.5598270e-03	36.88	89.13	1.50	PERIOD	ALL	00043872
583058.91000	4196117.58000	3.5731690e-03	36.92	89.13	1.50	PERIOD	ALL	00043872
583058.59000	4196108.77000	3.5898560e-03	36.99	89.13	1.50	PERIOD	ALL	00043872
583058.69000	4196104.54000	3.5934030e-03	37.04	88.94	1.50	PERIOD	ALL	00043872
583059.93000	4196095.57000	3.5854590e-03	37.19	88.94	1.50	PERIOD	ALL	00043872
583061.07000	4196090.83000	3.5737660e-03	37.26	37.26	1.50	PERIOD	ALL	00043872
583062.21000	4196086.08000	3.5611510e-03	37.34	37.34	1.50	PERIOD	ALL	00043872
583063.35000	4196081.34000	3.5476440e-03	37.43	37.43	1.50	PERIOD	ALL	00043872
583064.50000	4196076.59000	3.5330930e-03	37.52	37.52	1.50	PERIOD	ALL	00043872
583065.64000	4196071.85000	3.5177390e-03	37.61	37.61	1.50	PERIOD	ALL	00043872
583066.78000	4196067.10000	3.5014880e-03	37.70	37.70	1.50	PERIOD	ALL	00043872

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582888.33000 4196196.97000 6.7083950e-03 36.66 36.66 1.50 PERIOD ALL 00043872

582883.60000	4196195.70000	6.8840050e-03	36.64	36.64	1.50	PERIOD	ALL	00043872
582878.87000	4196194.43000	7.0661350e-03	36.62	36.62	1.50	PERIOD	ALL	00043872
582874.14000	4196193.16000	7.2546540e-03	36.58	36.58	1.50	PERIOD	ALL	00043872
582869.41000	4196191.89000	7.4502580e-03	36.54	36.54	1.50	PERIOD	ALL	00043872
582864.68000	4196190.63000	7.6541400e-03	36.54	36.54	1.50	PERIOD	ALL	00043872
582859.95000	4196189.36000	7.8667960e-03	36.57	36.57	1.50	PERIOD	ALL	00043872
582855.22000	4196188.09000	8.0875850e-03	36.59	36.59	1.50	PERIOD	ALL	00043872
582850.49000	4196186.82000	8.3171620e-03	36.61	36.61	1.50	PERIOD	ALL	00043872
582845.76000	4196185.55000	8.5556590e-03	36.62	36.62	1.50	PERIOD	ALL	00043872
582841.03000	4196184.28000	8.8038380e-03	36.63	36.63	1.50	PERIOD	ALL	00043872
582836.30000	4196183.01000	9.0615190e-03	36.62	36.62	1.50	PERIOD	ALL	00043872
582831.57000	4196181.74000	9.3298300e-03	36.61	36.61	1.50	PERIOD	ALL	00043872
582826.84000	4196180.47000	9.6097450e-03	36.61	36.61	1.50	PERIOD	ALL	00043872
582822.12000	4196179.20000	9.9013820e-03	36.62	36.62	1.50	PERIOD	ALL	00043872
582817.39000	4196177.93000	1.0205310e-02	36.61	36.61	1.50	PERIOD	ALL	00043872
582812.66000	4196176.67000	1.0523300e-02	36.62	36.62	1.50	PERIOD	ALL	00043872
582807.93000	4196175.40000	1.0856120e-02	36.64	36.64	1.50	PERIOD	ALL	00043872
582803.20000	4196174.13000	1.1205840e-02	36.69	42.08	1.50	PERIOD	ALL	00043872
582798.47000	4196172.86000	1.1572000e-02	36.74	42.21	1.50	PERIOD	ALL	00043872
582793.74000	4196171.59000	1.1959250e-02	36.84	42.28	1.50	PERIOD	ALL	00043872
582788.17000	4196174.92000	1.2379660e-02	36.98	42.28	1.50	PERIOD	ALL	00043872
582787.32000	4196179.52000	1.2377300e-02	36.94	42.21	1.50	PERIOD	ALL	00043872
582786.48000	4196184.12000	1.2362570e-02	36.89	42.21	1.50	PERIOD	ALL	00043872
582785.63000	4196188.73000	1.2336250e-02	36.82	42.21	1.50	PERIOD	ALL	00043872
582784.79000	4196193.33000	1.2298600e-02	36.75	42.15	1.50	PERIOD	ALL	00043872
582783.94000	4196197.93000	1.2252150e-02	36.69	42.15	1.50	PERIOD	ALL	00043872
582783.10000	4196202.53000	1.2195360e-02	36.64	44.94	1.50	PERIOD	ALL	00043872
582782.26000	4196207.13000	1.2131520e-02	36.63	44.94	1.50	PERIOD	ALL	00043872
582781.41000	4196211.73000	1.2060320e-02	36.64	44.94	1.50	PERIOD	ALL	00043872
582780.57000	4196216.33000	1.1978900e-02	36.65	44.94	1.50	PERIOD	ALL	00043872
582779.72000	4196220.94000	1.1888870e-02	36.66	44.94	1.50	PERIOD	ALL	00043872
582778.88000	4196225.54000	1.1787550e-02	36.64	44.94	1.50	PERIOD	ALL	00043872
582778.03000	4196230.14000	1.1677390e-02	36.60	44.94	1.50	PERIOD	ALL	00043872
582776.98000	4196239.63000	1.1370890e-02	36.49	44.76	1.50	PERIOD	ALL	00043872
582776.77000	4196244.53000	1.1178330e-02	36.43	44.50	1.50	PERIOD	ALL	00043872
582776.56000	4196249.42000	1.0982740e-02	36.38	44.50	1.50	PERIOD	ALL	00043872
582776.35000	4196254.31000	1.0784340e-02	36.34	41.81	1.50	PERIOD	ALL	00043872
582776.14000	4196259.21000	1.0582760e-02	36.30	41.49	1.50	PERIOD	ALL	00043872
582775.93000	4196264.10000	1.0379700e-02	36.26	36.26	1.50	PERIOD	ALL	00043872
582775.72000	4196268.99000	1.0174930e-02	36.21	36.21	1.50	PERIOD	ALL	00043872
582775.51000	4196273.88000	9.9702270e-03	36.17	36.17	1.50	PERIOD	ALL	00043872
582775.30000	4196278.78000	9.7658260e-03	36.14	36.14	1.50	PERIOD	ALL	00043872
582775.09000	4196283.67000	9.5632560e-03	36.12	36.12	1.50	PERIOD	ALL	00043872
582774.88000	4196288.56000	9.3624330e-03	36.11	36.11	1.50	PERIOD	ALL	00043872
582774.67000	4196293.46000	9.1630390e-03	36.10	36.10	1.50	PERIOD	ALL	00043872
582774.84000	4196303.12000	8.7479720e-03	36.06	36.06	1.50	PERIOD	ALL	00043872
582775.21000	4196307.88000	8.5348230e-03	36.01	36.01	1.50	PERIOD	ALL	00043872
582775.59000	4196312.65000	8.3266300e-03	35.97	35.97	1.50	PERIOD	ALL	00043872
582775.96000	4196317.42000	8.1238950e-03	35.92	35.92	1.50	PERIOD	ALL	00043872
582776.34000	4196322.19000	7.9262500e-03	35.87	35.87	1.50	PERIOD	ALL	00043872
582776.71000	4196326.95000	7.7352480e-03	35.83	35.83	1.50	PERIOD	ALL	00043872
582777.09000	4196331.72000	7.5484940e-03	35.78	35.78	1.50	PERIOD	ALL	00043872
582777.46000	4196336.49000	7.3678220e-03	35.74	35.74	1.50	PERIOD	ALL	00043872
582777.84000	4196341.25000	7.1921550e-03	35.70	35.70	1.50	PERIOD	ALL	00043872
582778.21000	4196346.02000	7.0211650e-03	35.65	35.65	1.50	PERIOD	ALL	00043872
582779.38000	4196355.28000	6.6886230e-03	35.54	35.54	1.50	PERIOD	ALL	00043872
582780.17000	4196359.77000	6.5275790e-03	35.48	35.48	1.50	PERIOD	ALL	00043872
582780.96000	4196364.26000	6.3719610e-03	35.44	35.44	1.50	PERIOD	ALL	00043872
582781.75000	4196368.75000	6.2218970e-03	35.44	35.44	1.50	PERIOD	ALL	00043872
582782.55000	4196373.24000	6.0757990e-03	35.44	35.44	1.50	PERIOD	ALL	00043872
582783.34000	4196377.72000	5.9340230e-03	35.43	35.43	1.50	PERIOD	ALL	00043872
582784.13000	4196382.21000	5.7958010e-03	35.42	35.42	1.50	PERIOD	ALL	00043872
582784.92000	4196386.70000	5.6608060e-03	35.39	35.39	1.50	PERIOD	ALL	00043872
582785.71000	4196391.19000	5.5290990e-03	35.35	35.35	1.50	PERIOD	ALL	00043872
582788.39000	4196399.80000	5.2623460e-03	35.22	35.22	1.50	PERIOD	ALL	00043872
582790.28000	4196403.93000	5.1308570e-03	35.26	35.26	1.50	PERIOD	ALL	00043872
582792.17000	4196408.05000	5.0038550e-03	35.30	35.30	1.50	PERIOD	ALL	00043872
582794.06000	4196412.17000	4.8810560e-03	35.35	35.35	1.50	PERIOD	ALL	00043872
582795.95000	4196416.29000	4.7616560e-03	35.37	35.37	1.50	PERIOD	ALL	00043872
582797.84000	4196420.42000	4.6458050e-03	35.39	35.39	1.50	PERIOD	ALL	00043872
582799.73000	4196424.54000	4.5339110e-03	35.42	35.42	1.50	PERIOD	ALL	00043872
582801.62000	4196428.66000	4.4250190e-03	35.42	35.42	1.50	PERIOD	ALL	00043872
582803.51000	4196432.79000	4.3188560e-03	35.39	35.39	1.50	PERIOD	ALL	00043872
581710.53000	4196308.29000	3.1455500e-04	55.57	239.60	1.50	PERIOD	ALL	00043872

581724.32000	4196282.48000	3.6857410e-04	55.76	239.60	1.50	PERIOD	ALL	00043872
581767.42000	4196306.28000	3.7040900e-04	53.75	239.60	1.50	PERIOD	ALL	00043872
581772.93000	4196296.51000	3.9529220e-04	53.71	239.60	1.50	PERIOD	ALL	00043872
581813.77000	4196318.81000	3.9437270e-04	52.13	239.60	1.50	PERIOD	ALL	00043872
581789.22000	4196362.92000	2.9528870e-04	53.31	239.60	1.50	PERIOD	ALL	00043872
581794.48000	4196365.92000	2.9572280e-04	52.89	239.60	1.50	PERIOD	ALL	00043872
581749.48000	4196450.36000	1.9413680e-04	52.15	239.60	1.50	PERIOD	ALL	00043872
581706.13000	4196427.82000	1.9464820e-04	51.19	239.60	1.50	PERIOD	ALL	00043872
581753.99000	4196334.52000	3.1144020e-04	53.82	239.60	1.50	PERIOD	ALL	00043872
581712.83000	4196303.99000	3.2261890e-04	55.65	239.60	1.50	PERIOD	ALL	00043872
581715.13000	4196299.69000	3.3106410e-04	55.70	239.60	1.50	PERIOD	ALL	00043872
581717.43000	4196295.38000	3.3990970e-04	55.72	239.60	1.50	PERIOD	ALL	00043872
581719.72000	4196291.08000	3.4904770e-04	55.75	239.60	1.50	PERIOD	ALL	00043872
581722.02000	4196286.78000	3.5858660e-04	55.77	239.60	1.50	PERIOD	ALL	00043872
581728.63000	4196284.86000	3.6842030e-04	55.53	239.60	1.50	PERIOD	ALL	00043872
581732.94000	4196287.24000	3.6845100e-04	55.25	239.60	1.50	PERIOD	ALL	00043872
581737.25000	4196289.62000	3.6847590e-04	54.97	239.60	1.50	PERIOD	ALL	00043872
581741.56000	4196292.00000	3.6835440e-04	54.74	239.60	1.50	PERIOD	ALL	00043872
581745.87000	4196294.38000	3.6805150e-04	54.56	239.60	1.50	PERIOD	ALL	00043872
581750.18000	4196296.76000	3.6771600e-04	54.40	239.60	1.50	PERIOD	ALL	00043872
581754.49000	4196299.14000	3.6748270e-04	54.21	239.60	1.50	PERIOD	ALL	00043872
581758.80000	4196301.52000	3.6719450e-04	54.04	239.60	1.50	PERIOD	ALL	00043872
581763.11000	4196303.90000	3.7099810e-04	53.87	239.60	1.50	PERIOD	ALL	00043872
581769.26000	4196303.02000	3.7844640e-04	53.74	239.60	1.50	PERIOD	ALL	00043872
581771.09000	4196299.77000	3.8668790e-04	53.74	239.60	1.50	PERIOD	ALL	00043872
581777.01000	4196298.74000	3.9488650e-04	53.55	239.60	1.50	PERIOD	ALL	00043872
581781.10000	4196300.97000	3.9440820e-04	53.42	239.60	1.50	PERIOD	ALL	00043872
581785.18000	4196303.20000	3.9414410e-04	53.29	239.60	1.50	PERIOD	ALL	00043872
581789.27000	4196305.43000	3.9372320e-04	53.16	239.60	1.50	PERIOD	ALL	00043872
581793.35000	4196307.66000	3.9342090e-04	52.99	239.60	1.50	PERIOD	ALL	00043872
581797.43000	4196309.89000	3.9309250e-04	52.84	239.60	1.50	PERIOD	ALL	00043872
581801.52000	4196312.12000	3.9494570e-04	52.66	239.60	1.50	PERIOD	ALL	00043872
581805.60000	4196314.35000	3.9469900e-04	52.49	239.60	1.50	PERIOD	ALL	00043872
581809.69000	4196316.58000	3.9453890e-04	52.30	239.60	1.50	PERIOD	ALL	00043872
581811.54000	4196322.82000	3.8361510e-04	52.31	239.60	1.50	PERIOD	ALL	00043872
581809.31000	4196326.83000	3.7327830e-04	52.49	239.60	1.50	PERIOD	ALL	00043872
581807.07000	4196330.84000	3.6348650e-04	52.60	239.60	1.50	PERIOD	ALL	00043872
581804.84000	4196334.85000	3.5414410e-04	52.68	239.60	1.50	PERIOD	ALL	00043872
581802.61000	4196338.86000	3.4516700e-04	52.74	239.60	1.50	PERIOD	ALL	00043872
581800.38000	4196342.87000	3.3656570e-04	52.78	239.60	1.50	PERIOD	ALL	00043872
581798.15000	4196346.88000	3.2830220e-04	52.81	239.60	1.50	PERIOD	ALL	00043872
581795.92000	4196350.89000	3.1836690e-04	52.87	239.60	1.50	PERIOD	ALL	00043872
581793.68000	4196354.90000	3.1048240e-04	52.98	239.60	1.50	PERIOD	ALL	00043872
581791.45000	4196358.91000	3.0277610e-04	53.13	239.60	1.50	PERIOD	ALL	00043872
581791.85000	4196364.42000	2.9546830e-04	53.11	239.60	1.50	PERIOD	ALL	00043872
581792.23000	4196370.14000	2.8850950e-04	52.94	239.60	1.50	PERIOD	ALL	00043872
581789.98000	4196374.36000	2.8162600e-04	52.96	239.60	1.50	PERIOD	ALL	00043872
581787.73000	4196378.59000	2.7512980e-04	52.91	239.60	1.50	PERIOD	ALL	00043872
581785.48000	4196382.81000	2.6894570e-04	52.82	239.60	1.50	PERIOD	ALL	00043872
581783.23000	4196387.03000	2.6452890e-04	52.75	239.60	1.50	PERIOD	ALL	00043872
581780.98000	4196391.25000	2.5869940e-04	52.66	239.60	1.50	PERIOD	ALL	00043872
581778.73000	4196395.47000	2.5310570e-04	52.54	239.60	1.50	PERIOD	ALL	00043872
581776.48000	4196399.70000	2.4739490e-04	52.60	239.60	1.50	PERIOD	ALL	00043872
581774.23000	4196403.92000	2.4186260e-04	52.68	239.60	1.50	PERIOD	ALL	00043872
581771.98000	4196408.14000	2.3650350e-04	52.77	239.60	1.50	PERIOD	ALL	00043872
581769.73000	4196412.36000	2.3142160e-04	52.80	239.60	1.50	PERIOD	ALL	00043872
581767.48000	4196416.58000	2.2513270e-04	52.82	239.60	1.50	PERIOD	ALL	00043872
581765.23000	4196420.81000	2.2033990e-04	52.90	239.60	1.50	PERIOD	ALL	00043872
581762.98000	4196425.03000	2.1576890e-04	52.95	239.60	1.50	PERIOD	ALL	00043872
581760.73000	4196429.25000	2.1150680e-04	52.91	239.60	1.50	PERIOD	ALL	00043872
581758.48000	4196433.47000	2.0740630e-04	52.87	239.60	1.50	PERIOD	ALL	00043872
581756.23000	4196437.69000	2.0336000e-04	52.88	239.60	1.50	PERIOD	ALL	00043872
581753.98000	4196441.92000	2.0088710e-04	52.73	239.60	1.50	PERIOD	ALL	00043872
581751.73000	4196446.14000	1.9743480e-04	52.46	239.60	1.50	PERIOD	ALL	00043872
581745.15000	4196448.11000	1.9389180e-04	52.19	239.60	1.50	PERIOD	ALL	00043872
581740.81000	4196445.85000	1.9422580e-04	51.77	239.60	1.50	PERIOD	ALL	00043872
581736.47000	4196443.60000	1.9447150e-04	51.45	239.60	1.50	PERIOD	ALL	00043872
581732.14000	4196441.34000	1.9478620e-04	51.11	239.60	1.50	PERIOD	ALL	00043872
581727.81000	4196439.09000	1.9499810e-04	50.88	239.60	1.50	PERIOD	ALL	00043872
581723.47000	4196436.84000	1.9525900e-04	50.63	239.60	1.50	PERIOD	ALL	00043872
581719.14000	4196434.58000	1.9525790e-04	50.62	239.60	1.50	PERIOD	ALL	00043872
581714.80000	4196432.33000	1.9509920e-04	50.75	239.60	1.50	PERIOD	ALL	00043872
581710.46000	4196430.07000	1.9485460e-04	50.97	239.60	1.50	PERIOD	ALL	00043872
581708.41000	4196423.38000	1.9779760e-04	51.93	239.60	1.50	PERIOD	ALL	00043872

581710.69000	4196418.93000	2.0122600e-04	52.55	239.60	1.50	PERIOD	ALL	00043872
581712.97000	4196414.49000	2.0380510e-04	52.85	239.60	1.50	PERIOD	ALL	00043872
581715.25000	4196410.05000	2.0966330e-04	52.81	239.60	1.50	PERIOD	ALL	00043872
581717.53000	4196405.61000	2.1428320e-04	52.81	239.60	1.50	PERIOD	ALL	00043872
581719.80000	4196401.16000	2.1754530e-04	52.88	239.60	1.50	PERIOD	ALL	00043872
581722.08000	4196396.72000	2.2240390e-04	52.93	239.60	1.50	PERIOD	ALL	00043872
581724.36000	4196392.28000	2.2734560e-04	53.03	239.60	1.50	PERIOD	ALL	00043872
581726.64000	4196387.83000	2.3248410e-04	53.13	239.60	1.50	PERIOD	ALL	00043872
581728.92000	4196383.39000	2.3778390e-04	53.23	239.60	1.50	PERIOD	ALL	00043872
581731.20000	4196378.95000	2.4325940e-04	53.34	239.60	1.50	PERIOD	ALL	00043872
581733.48000	4196374.51000	2.4880440e-04	53.45	239.60	1.50	PERIOD	ALL	00043872
581735.76000	4196370.06000	2.5464810e-04	53.57	239.60	1.50	PERIOD	ALL	00043872
581738.04000	4196365.62000	2.6074090e-04	53.67	239.60	1.50	PERIOD	ALL	00043872
581740.32000	4196361.18000	2.6704740e-04	53.77	239.60	1.50	PERIOD	ALL	00043872
581742.59000	4196356.73000	2.7363220e-04	53.85	239.60	1.50	PERIOD	ALL	00043872
581744.87000	4196352.29000	2.8051980e-04	53.90	239.60	1.50	PERIOD	ALL	00043872
581747.15000	4196347.85000	2.8773870e-04	53.91	239.60	1.50	PERIOD	ALL	00043872
581749.43000	4196343.41000	2.9531740e-04	53.89	239.60	1.50	PERIOD	ALL	00043872
581751.71000	4196338.96000	3.0322820e-04	53.86	239.60	1.50	PERIOD	ALL	00043872
581750.04000	4196332.13000	3.1170980e-04	53.95	239.60	1.50	PERIOD	ALL	00043872
581746.09000	4196329.75000	3.0974670e-04	54.10	239.60	1.50	PERIOD	ALL	00043872
581742.14000	4196327.37000	3.1014670e-04	54.29	239.60	1.50	PERIOD	ALL	00043872
581738.19000	4196324.98000	3.1058090e-04	54.48	239.60	1.50	PERIOD	ALL	00043872
581734.24000	4196322.60000	3.1109400e-04	54.64	239.60	1.50	PERIOD	ALL	00043872
581730.28000	4196320.21000	3.1165610e-04	54.79	239.60	1.50	PERIOD	ALL	00043872
581726.33000	4196317.83000	3.1228370e-04	54.92	239.60	1.50	PERIOD	ALL	00043872
581722.38000	4196315.44000	3.1295670e-04	55.04	239.60	1.50	PERIOD	ALL	00043872
581718.43000	4196313.06000	3.1346730e-04	55.22	239.60	1.50	PERIOD	ALL	00043872
581714.48000	4196310.67000	3.1397440e-04	55.41	239.60	1.50	PERIOD	ALL	00043872
581843.32000	4195362.42000	2.7241380e-04	54.52	198.92	1.50	PERIOD	ALL	00043872
581870.11000	4195362.96000	2.7106140e-04	53.91	198.92	1.50	PERIOD	ALL	00043872
581870.47000	4195356.63000	2.5936990e-04	54.38	198.92	1.50	PERIOD	ALL	00043872
581900.70000	4195356.63000	2.5253820e-04	54.10	198.92	1.50	PERIOD	ALL	00043872
581900.52000	4195351.74000	2.4796290e-04	54.36	198.92	1.50	PERIOD	ALL	00043872
581957.53000	4195350.47000	2.3501220e-04	55.37	198.92	1.50	PERIOD	ALL	00043872
581956.99000	4195361.51000	2.4466700e-04	54.45	198.92	1.50	PERIOD	ALL	00043872
581988.30000	4195361.15000	2.3946050e-04	54.66	198.92	1.50	PERIOD	ALL	00043872
581988.84000	4195311.92000	2.0689390e-04	55.56	198.92	1.50	PERIOD	ALL	00043872
581947.03000	4195312.83000	2.1207230e-04	55.07	198.92	1.50	PERIOD	ALL	00043872
581947.03000	4195307.03000	2.0837280e-04	55.30	198.92	1.50	PERIOD	ALL	00043872
581917.89000	4195306.85000	2.1158610e-04	55.42	198.92	1.50	PERIOD	ALL	00043872
581917.71000	4195301.42000	2.0798320e-04	55.71	198.92	1.50	PERIOD	ALL	00043872
581913.01000	4195301.24000	2.0843880e-04	55.72	198.92	1.50	PERIOD	ALL	00043872
581912.64000	4195294.73000	2.0413030e-04	56.18	198.92	1.50	PERIOD	ALL	00043872
581886.40000	4195294.91000	2.0664160e-04	56.76	198.92	1.50	PERIOD	ALL	00043872
581886.04000	4195299.07000	2.0957740e-04	56.48	198.92	1.50	PERIOD	ALL	00043872
581836.44000	4195297.62000	2.1240240e-04	58.79	198.92	1.50	PERIOD	ALL	00043872
581836.08000	4195311.56000	2.2301710e-04	58.20	198.92	1.50	PERIOD	ALL	00043872
581823.23000	4195315.36000	2.2784590e-04	58.54	198.92	1.50	PERIOD	ALL	00043872
581847.79000	4195362.51000	2.7150530e-04	54.36	198.92	1.50	PERIOD	ALL	00043872
581852.25000	4195362.60000	2.7025340e-04	54.35	198.92	1.50	PERIOD	ALL	00043872
581856.71000	4195362.69000	2.6913810e-04	54.29	198.92	1.50	PERIOD	ALL	00043872
581861.18000	4195362.78000	2.6819670e-04	54.17	198.92	1.50	PERIOD	ALL	00043872
581865.65000	4195362.87000	2.6731280e-04	54.04	198.92	1.50	PERIOD	ALL	00043872
581870.29000	4195359.79000	2.6272400e-04	54.20	198.92	1.50	PERIOD	ALL	00043872
581874.79000	4195356.63000	2.5842480e-04	54.30	198.92	1.50	PERIOD	ALL	00043872
581879.11000	4195356.63000	2.5744650e-04	54.24	198.92	1.50	PERIOD	ALL	00043872
581883.43000	4195356.63000	2.5643410e-04	54.21	198.92	1.50	PERIOD	ALL	00043872
581887.74000	4195356.63000	2.5543120e-04	54.18	198.92	1.50	PERIOD	ALL	00043872
581892.06000	4195356.63000	2.5443290e-04	54.16	198.92	1.50	PERIOD	ALL	00043872
581896.38000	4195356.63000	2.5347590e-04	54.13	198.92	1.50	PERIOD	ALL	00043872
581905.27000	4195351.63000	2.4693670e-04	54.32	198.92	1.50	PERIOD	ALL	00043872
581910.02000	4195351.53000	2.4590650e-04	54.30	198.92	1.50	PERIOD	ALL	00043872
581914.77000	4195351.42000	2.4481020e-04	54.32	198.92	1.50	PERIOD	ALL	00043872
581919.52000	4195351.32000	2.4373220e-04	54.35	198.92	1.50	PERIOD	ALL	00043872
581924.27000	4195351.21000	2.4257170e-04	54.44	198.92	1.50	PERIOD	ALL	00043872
581929.03000	4195351.11000	2.4145830e-04	54.53	198.92	1.50	PERIOD	ALL	00043872
581933.78000	4195351.00000	2.4038570e-04	54.61	198.92	1.50	PERIOD	ALL	00043872
581938.53000	4195350.89000	2.3937090e-04	54.67	198.92	1.50	PERIOD	ALL	00043872
581943.28000	4195350.79000	2.3843100e-04	54.72	198.92	1.50	PERIOD	ALL	00043872
581948.03000	4195350.68000	2.3735790e-04	54.86	198.92	1.50	PERIOD	ALL	00043872
581952.78000	4195350.58000	2.3627650e-04	55.04	198.92	1.50	PERIOD	ALL	00043872
581957.35000	4195354.15000	2.3813210e-04	55.07	198.92	1.50	PERIOD	ALL	00043872
581957.17000	4195357.83000	2.4136020e-04	54.76	198.92	1.50	PERIOD	ALL	00043872

581961.46000	4195361.46000	2.4357850e-04	54.65	198.92	1.50	PERIOD	ALL	00043872
581965.94000	4195361.41000	2.4251310e-04	54.86	198.92	1.50	PERIOD	ALL	00043872
581970.41000	4195361.36000	2.4157310e-04	55.02	198.92	1.50	PERIOD	ALL	00043872
581974.88000	4195361.30000	2.4072960e-04	55.13	198.92	1.50	PERIOD	ALL	00043872
581979.35000	4195361.25000	2.4007370e-04	55.13	198.92	1.50	PERIOD	ALL	00043872
581983.83000	4195361.20000	2.3954070e-04	55.06	198.92	1.50	PERIOD	ALL	00043872
581988.35000	4195356.23000	2.3563010e-04	54.90	198.92	1.50	PERIOD	ALL	00043872
581988.41000	4195351.30000	2.3191880e-04	55.13	198.92	1.50	PERIOD	ALL	00043872
581988.46000	4195346.38000	2.2848020e-04	55.22	198.92	1.50	PERIOD	ALL	00043872
581988.52000	4195341.46000	2.2514600e-04	55.29	198.92	1.50	PERIOD	ALL	00043872
581988.57000	4195336.54000	2.2189230e-04	55.37	198.92	1.50	PERIOD	ALL	00043872
581988.62000	4195331.61000	2.1869720e-04	55.45	198.92	1.50	PERIOD	ALL	00043872
581988.68000	4195326.69000	2.1561440e-04	55.51	198.92	1.50	PERIOD	ALL	00043872
581988.73000	4195321.77000	2.1261400e-04	55.56	198.92	1.50	PERIOD	ALL	00043872
581988.79000	4195316.84000	2.0969890e-04	55.58	198.92	1.50	PERIOD	ALL	00043872
581984.19000	4195312.02000	2.0713970e-04	55.80	198.92	1.50	PERIOD	ALL	00043872
581979.55000	4195312.12000	2.0754810e-04	55.85	198.92	1.50	PERIOD	ALL	00043872
581974.90000	4195312.22000	2.0800850e-04	55.88	198.92	1.50	PERIOD	ALL	00043872
581970.26000	4195312.32000	2.0846800e-04	55.90	198.92	1.50	PERIOD	ALL	00043872
581965.61000	4195312.43000	2.0902500e-04	55.85	198.92	1.50	PERIOD	ALL	00043872
581960.97000	4195312.53000	2.0961990e-04	55.78	198.92	1.50	PERIOD	ALL	00043872
581956.32000	4195312.63000	2.1050570e-04	55.45	198.92	1.50	PERIOD	ALL	00043872
581951.68000	4195312.73000	2.1137030e-04	55.17	198.92	1.50	PERIOD	ALL	00043872
581947.03000	4195309.93000	2.1025960e-04	55.14	198.92	1.50	PERIOD	ALL	00043872
581942.17000	4195307.00000	2.0892930e-04	55.27	198.92	1.50	PERIOD	ALL	00043872
581937.32000	4195306.97000	2.0944340e-04	55.29	198.92	1.50	PERIOD	ALL	00043872
581932.46000	4195306.94000	2.0989100e-04	55.38	198.92	1.50	PERIOD	ALL	00043872
581927.60000	4195306.91000	2.1036080e-04	55.46	198.92	1.50	PERIOD	ALL	00043872
581922.75000	4195306.88000	2.1097340e-04	55.43	198.92	1.50	PERIOD	ALL	00043872
581917.80000	4195304.13000	2.0976660e-04	55.57	198.92	1.50	PERIOD	ALL	00043872
581912.82000	4195297.99000	2.0631700e-04	55.91	198.92	1.50	PERIOD	ALL	00043872
581908.27000	4195294.76000	2.0445520e-04	56.34	198.92	1.50	PERIOD	ALL	00043872
581903.89000	4195294.79000	2.0476610e-04	56.52	198.92	1.50	PERIOD	ALL	00043872
581899.52000	4195294.82000	2.0524550e-04	56.56	198.92	1.50	PERIOD	ALL	00043872
581895.15000	4195294.85000	2.0573970e-04	56.60	198.92	1.50	PERIOD	ALL	00043872
581890.77000	4195294.88000	2.0620300e-04	56.67	198.92	1.50	PERIOD	ALL	00043872
581881.08000	4195298.92000	2.0982890e-04	56.71	198.92	1.50	PERIOD	ALL	00043872
581876.12000	4195298.78000	2.0997420e-04	57.01	198.92	1.50	PERIOD	ALL	00043872
581871.16000	4195298.63000	2.1008120e-04	57.34	198.92	1.50	PERIOD	ALL	00043872
581866.20000	4195298.49000	2.1035620e-04	57.56	198.92	1.50	PERIOD	ALL	00043872
581861.24000	4195298.34000	2.1076220e-04	57.70	198.92	1.50	PERIOD	ALL	00043872
581856.28000	4195298.20000	2.1135730e-04	57.73	198.92	1.50	PERIOD	ALL	00043872
581851.32000	4195298.05000	2.1193200e-04	57.78	198.92	1.50	PERIOD	ALL	00043872
581846.36000	4195297.91000	2.1244630e-04	57.88	198.92	1.50	PERIOD	ALL	00043872
581841.40000	4195297.76000	2.1248640e-04	58.29	198.92	1.50	PERIOD	ALL	00043872
581836.32000	4195302.27000	2.1578910e-04	58.62	198.92	1.50	PERIOD	ALL	00043872
581836.20000	4195306.91000	2.1927340e-04	58.45	198.92	1.50	PERIOD	ALL	00043872
581831.80000	4195312.83000	2.2403570e-04	58.62	198.92	1.50	PERIOD	ALL	00043872
581827.51000	4195314.09000	2.2575180e-04	58.67	198.92	1.50	PERIOD	ALL	00043872
581825.07000	4195319.69000	2.3173650e-04	58.02	198.92	1.50	PERIOD	ALL	00043872
581826.92000	4195324.01000	2.3585900e-04	57.43	198.92	1.50	PERIOD	ALL	00043872
581828.76000	4195328.34000	2.4001970e-04	56.90	198.92	1.50	PERIOD	ALL	00043872
581830.60000	4195332.67000	2.4369550e-04	56.65	198.92	1.50	PERIOD	ALL	00043872
581832.44000	4195337.00000	2.4750750e-04	56.38	198.92	1.50	PERIOD	ALL	00043872
581834.29000	4195341.32000	2.5137100e-04	56.12	198.92	1.50	PERIOD	ALL	00043872
581836.13000	4195345.65000	2.5539120e-04	55.84	198.92	1.50	PERIOD	ALL	00043872
581837.97000	4195349.98000	2.5954340e-04	55.54	198.92	1.50	PERIOD	ALL	00043872
581839.81000	4195354.30000	2.6388380e-04	55.20	198.92	1.50	PERIOD	ALL	00043872
581841.66000	4195358.63000	2.6847890e-04	54.80	198.92	1.50	PERIOD	ALL	00043872

Unmitigated Residences on B- Non-Residential on A,C,D,E - Off-Site Middle School

HARP Project Summary Report 12/6/2022 12:28:28 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC3_MS
Project Output Directory: C:\HARP2\PROJECTS\TWC3_MS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	0	0	9901	DieselExhPM	1	53.1	0	1
SITE_B	0	0	9901	DieselExhPM	1	46.39	0	1
SITE_C	0	0	9901	DieselExhPM	1	9.09	0	1
SITE_D	0	0	9901	DieselExhPM	1	18.44	0	1
SITE_E	0	0	9901	DieselExhPM	1	10.65	0	1
BDWY	0	0	9901	DieselExhPM	1	1.06	0	1
MAIN	0	0	9901	DieselExhPM	1	1.32	0	1
CIVIC	0	0	9901	DieselExhPM	1	1.06	0	1
YGNO	0	0	9901	DieselExhPM	1	1.06	0	1

```
PARK            0               0               9901            DieselExhPM     1               0.79            0
     1

Background
PolID           PolAbbrev       Conc (ug/m^3)   MWAF
_____________________________________________________________

Ground level concentration files (\glc\)
_____________________________________
9901MAXHR.txt
9901PER.txt

***POLLUTANT HEALTH INFORMATION***
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID           PolAbbrev       InhCancer       OralCancer      AcuteREL        InhChronicREL   OralChronicREL
InhChronic8HRREL
_____________________________________________________________________________________________________________
______
9901            DieselExhPM     1.1                                             5
```

HARP2 - HRACalc (dated 22118) 11/28/2022 3:30:15 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

```
**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for
details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\Marianne
Aydil\Documents\HARP2\TWC5\hra\TWC5_CancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\Marianne
Aydil\Documents\HARP2\TWC5\hra\TWC5_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 1:00:01 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	1	ALL	581849	4195647	4.9172000e-08
2	41	ALL	581853	4195647	4.9073000e-08
3	45	ALL	581858	4195647	4.8992000e-08
4	5	ALL	581862	4195647	4.8911000e-08
5	2	ALL	581849	4195647	4.8557000e-08
6	173	ALL	581849	4195644	4.8526000e-08
7	42	ALL	581853	4195647	4.8463000e-08
8	46	ALL	581858	4195647	4.8395000e-08
9	6	ALL	581862	4195647	4.8331000e-08
10	174	ALL	581849	4195644	4.7922000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 12:28:44 PM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	1	ALL	581849	4195647	1.9185000e-04
2	41	ALL	581853	4195647	1.9148000e-04
3	45	ALL	581858	4195647	1.9119000e-04
4	5	ALL	581862	4195647	1.9089000e-04
5	2	ALL	581849	4195647	1.8943000e-04
6	173	ALL	581849	4195644	1.8934000e-04
7	42	ALL	581853	4195647	1.8908000e-04
8	46	ALL	581858	4195647	1.8884000e-04
9	6	ALL	581862	4195647	1.8862000e-04
10	174	ALL	581849	4195644	1.8696000e-04

```
* AERMOD (22112 ):  HARP GENERATED FILE
      12/06/22
* AERMET ( 14134):
      12:27:36
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   176 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y      AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE     GRP
     NUM HRS   NET ID
* _____________  _____________  _____________   _______   _______   _______  _______
_________  _________  _________
  581849.04000 4195646.55000 9.5922660e-04    54.80   239.60     1.50  PERIOD  ALL
    00043872
  581849.04000 4195646.56000 9.4714550e-04    54.80   239.60     4.50  PERIOD  ALL
    00043872
  581849.04000 4195646.57000 9.2763970e-04    54.80   239.60     7.50  PERIOD  ALL
    00043872
  581849.04000 4195646.58000 9.0038330e-04    54.80   239.60    10.50  PERIOD  ALL
    00043872
  581862.03000 4195646.76000 9.5446770e-04    54.05   239.60     1.50  PERIOD  ALL
    00043872
  581862.03000 4195646.77000 9.4308950e-04    54.05   239.60     4.50  PERIOD  ALL
    00043872
  581862.03000 4195646.78000 9.2461510e-04    54.05   239.60     7.50  PERIOD  ALL
    00043872
  581862.03000 4195646.79000 8.9846060e-04    54.05   239.60    10.50  PERIOD  ALL
    00043872
  581878.85000 4195629.94000 8.6833820e-04    54.05   239.60     1.50  PERIOD  ALL
    00043872
  581878.85000 4195629.95000 8.5688790e-04    54.05   239.60     4.50  PERIOD  ALL
    00043872
  581878.85000 4195629.96000 8.3959800e-04    54.05   239.60     7.50  PERIOD  ALL
    00043872
  581878.85000 4195629.97000 8.1587370e-04    54.05   239.60    10.50  PERIOD  ALL
    00043872
  581879.27000 4195594.17000 7.2566910e-04    54.83   239.60     1.50  PERIOD  ALL
    00043872
  581879.27000 4195594.18000 7.1408170e-04    54.83   239.60     4.50  PERIOD  ALL
    00043872
  581879.27000 4195594.19000 6.9830420e-04    54.83   239.60     7.50  PERIOD  ALL
    00043872
  581879.27000 4195594.20000 6.7803360e-04    54.83   239.60    10.50  PERIOD  ALL
    00043872
  581864.16000 4195577.35000 6.8230610e-04    53.97   239.60     1.50  PERIOD  ALL
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  581864.16000 4195577.36000 6.7373300e-04    53.97   239.60     4.50  PERIOD  ALL
    00043872
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581864.16000 4195577.37000 6.6002850e-04    53.97   239.60     7.50  PERIOD  ALL
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581864.16000 4195577.38000 6.4213930e-04    53.97   239.60    10.50  PERIOD  ALL
  00043872
581837.33000 4195577.99000 7.0574540e-04    55.00   239.60     1.50  PERIOD  ALL
  00043872
581837.33000 4195578.00000 6.9662900e-04    55.00   239.60     4.50  PERIOD  ALL
  00043872
581837.33000 4195578.01000 6.8293620e-04    55.00   239.60     7.50  PERIOD  ALL
  00043872
581837.33000 4195578.02000 6.6436360e-04    55.00   239.60    10.50  PERIOD  ALL
  00043872
581836.69000 4195591.83000 7.5304870e-04    55.00   239.60     1.50  PERIOD  ALL
  00043872
581836.69000 4195591.84000 7.4377880e-04    55.00   239.60     4.50  PERIOD  ALL
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581836.69000 4195591.85000 7.2930610e-04    55.00   239.60     7.50  PERIOD  ALL
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581836.69000 4195591.86000 7.0934200e-04    55.00   239.60    10.50  PERIOD  ALL
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581842.86000 4195602.70000 7.7711600e-04    55.07   239.60     4.50  PERIOD  ALL
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581842.86000 4195602.71000 7.6167540e-04    55.07   239.60     7.50  PERIOD  ALL
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581842.86000 4195602.72000 7.4038230e-04    55.07   239.60    10.50  PERIOD  ALL
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581843.08000 4195628.45000 8.8641050e-04    54.85   239.60     1.50  PERIOD  ALL
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581843.08000 4195628.46000 8.7566920e-04    54.85   239.60     4.50  PERIOD  ALL
  00043872
581843.08000 4195628.47000 8.5823970e-04    54.85   239.60     7.50  PERIOD  ALL
  00043872
581843.08000 4195628.48000 8.3379070e-04    54.85   239.60    10.50  PERIOD  ALL
  00043872
581848.83000 4195640.80000 9.3437140e-04    54.84   239.60     1.50  PERIOD  ALL
  00043872
581848.83000 4195640.81000 9.2268210e-04    54.84   239.60     4.50  PERIOD  ALL
  00043872
581848.83000 4195640.82000 9.0382420e-04    54.84   239.60     7.50  PERIOD  ALL
  00043872
581848.83000 4195640.83000 8.7748280e-04    54.84   239.60    10.50  PERIOD  ALL
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581853.37000 4195646.62000 9.5740790e-04    54.70   239.60     1.50  PERIOD  ALL
  00043872
581853.37000 4195646.63000 9.4542370e-04    54.69   239.60     4.50  PERIOD  ALL
  00043872
581853.37000 4195646.64000 9.2604970e-04    54.69   239.60     7.50  PERIOD  ALL
  00043872
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581853.37000 4195646.65000 8.9898120e-04    54.69   239.60    10.50  PERIOD  ALL
  00043872
581857.70000 4195646.69000 9.5594370e-04    54.41   239.60     1.50  PERIOD  ALL
  00043872
581857.70000 4195646.70000 9.4421480e-04    54.41   239.60     4.50  PERIOD  ALL
  00043872
581857.70000 4195646.71000 9.2522020e-04    54.41   239.60     7.50  PERIOD  ALL
  00043872
581857.70000 4195646.72000 8.9855450e-04    54.41   239.60    10.50  PERIOD  ALL
  00043872
581865.39000 4195643.40000 9.3330460e-04    53.95   239.60     1.50  PERIOD  ALL
  00043872
581865.39000 4195643.41000 9.2632550e-04    53.95   239.60     4.50  PERIOD  ALL
  00043872
581865.39000 4195643.42000 9.0830480e-04    53.95   239.60     7.50  PERIOD  ALL
  00043872
581865.39000 4195643.43000 8.8284870e-04    53.95   239.60    10.50  PERIOD  ALL
  00043872
581868.76000 4195640.03000 9.1616660e-04    53.94   239.60     1.50  PERIOD  ALL
  00043872
581868.76000 4195640.04000 9.0910290e-04    53.94   239.60     4.50  PERIOD  ALL
  00043872
581868.76000 4195640.05000 8.9137120e-04    53.94   239.60     7.50  PERIOD  ALL
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Unmitigated Non-Residential Buildout of A, C, D and E - On-Site Site C

HARP Project Summary Report 12/6/2022 3:11:34 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC4.2
Project Output Directory: C:\HARP2\PROJECTS\TWC4.2
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	96.58	0	1
SITE_B	9901	DieselExhPM	1	33.06	0	1
SITE_C	9901	DieselExhPM	1	0	0	1
SITE_D	9901	DieselExhPM	1	33.53	0	1
SITE_E	9901	DieselExhPM	1	19.36	0	1
BDWY	9901	DieselExhPM	1	2	0	1
MAIN	9901	DieselExhPM	1	2.5	0	1
CIVIC	9901	DieselExhPM	1	2	0	1
YGNO	9901	DieselExhPM	1	2	0	1
PARK	9901	DieselExhPM	1	1.5	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/1/2022 1:04:01 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

**********
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\HARP2\PROJECTS\TWC4.2\hra\TWC4.2_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC4.2\hra\TWC4.2_CANCER_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/2/2022 8:20:10 AM
RISK SCENARIO: All

LINE	REC	TYPE	X	Y	CANCER RISK
1	14	ALL	582512	4196132	3.4150000e-05
2	15	ALL	582517	4196134	3.4136000e-05
3	13	ALL	582507	4196131	3.4105000e-05
4	16	ALL	582522	4196135	3.4059000e-05
5	12	ALL	582503	4196130	3.4006000e-05
6	17	ALL	582526	4196136	3.3958000e-05
7	11	ALL	582498	4196128	3.3846000e-05
8	18	ALL	582531	4196137	3.3813000e-05
9	19	ALL	582536	4196139	3.3658000e-05
10	10	ALL	582493	4196127	3.3606000e-05

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/2/2022 8:21:36 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	14	ALL	582512	4196132	3.8404000e-02
2	15	ALL	582517	4196134	3.8388000e-02
3	13	ALL	582507	4196131	3.8353000e-02
4	16	ALL	582522	4196135	3.8302000e-02
5	12	ALL	582503	4196130	3.8242000e-02
6	17	ALL	582526	4196136	3.8189000e-02
7	11	ALL	582498	4196128	3.8062000e-02
8	18	ALL	582531	4196137	3.8025000e-02
9	19	ALL	582536	4196139	3.7851000e-02
10	10	ALL	582493	4196127	3.7792000e-02

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/02/22
* AERMET ( 14134):                                                                        08:19:16
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF    63 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  582465.02000 4196119.46000 1.8099500e-01   49.88    49.88     1.50  PERIOD  ALL       00043872
  582582.69000 4196151.50000 1.6146350e-01   51.21    51.21     1.50  PERIOD  ALL       00043872
  582591.67000 4196124.78000 6.9951210e-02   50.01    50.69     1.50  PERIOD  ALL       00043872
  582471.53000 4196093.98000 9.3996140e-02   49.18    49.18     1.50  PERIOD  ALL       00043872
  582469.73000 4196120.74000 1.7445310e-01   50.00    50.00     1.50  PERIOD  ALL       00043872
  582474.43000 4196122.02000 1.7700520e-01   50.12    50.12     1.50  PERIOD  ALL       00043872
  582479.14000 4196123.30000 1.8067530e-01   50.16    50.16     1.50  PERIOD  ALL       00043872
  582483.85000 4196124.59000 1.8424310e-01   50.20    50.20     1.50  PERIOD  ALL       00043872
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  582493.26000 4196127.15000 1.8896060e-01   50.28    50.28     1.50  PERIOD  ALL       00043872
  582497.97000 4196128.43000 1.9030870e-01   50.33    50.33     1.50  PERIOD  ALL       00043872
  582502.67000 4196129.71000 1.9120870e-01   50.38    50.38     1.50  PERIOD  ALL       00043872
  582507.38000 4196130.99000 1.9176670e-01   50.44    50.44     1.50  PERIOD  ALL       00043872
  582512.09000 4196132.28000 1.9202000e-01   50.49    50.49     1.50  PERIOD  ALL       00043872
  582516.79000 4196133.56000 1.9193960e-01   50.54    50.54     1.50  PERIOD  ALL       00043872
  582521.50000 4196134.84000 1.9151080e-01   50.58    50.58     1.50  PERIOD  ALL       00043872
  582526.21000 4196136.12000 1.9094320e-01   50.64    50.64     1.50  PERIOD  ALL       00043872
  582530.92000 4196137.40000 1.9012330e-01   50.69    50.69     1.50  PERIOD  ALL       00043872
  582535.62000 4196138.68000 1.8925390e-01   50.75    50.75     1.50  PERIOD  ALL       00043872
  582540.33000 4196139.97000 1.8826870e-01   50.81    50.81     1.50  PERIOD  ALL       00043872
  582545.04000 4196141.25000 1.8696250e-01   50.89    50.89     1.50  PERIOD  ALL       00043872
  582549.74000 4196142.53000 1.8509340e-01   50.96    50.96     1.50  PERIOD  ALL       00043872
  582554.45000 4196143.81000 1.8294760e-01   51.03    51.03     1.50  PERIOD  ALL       00043872
  582559.16000 4196145.09000 1.8031930e-01   51.08    51.08     1.50  PERIOD  ALL       00043872
  582563.86000 4196146.37000 1.7725510e-01   51.13    51.13     1.50  PERIOD  ALL       00043872
  582568.57000 4196147.66000 1.7377080e-01   51.16    51.16     1.50  PERIOD  ALL       00043872
  582573.28000 4196148.94000 1.6978240e-01   51.19    51.19     1.50  PERIOD  ALL       00043872
  582577.98000 4196150.22000 1.6572240e-01   51.24    51.24     1.50  PERIOD  ALL       00043872
  582584.19000 4196147.05000 1.3264940e-01   51.20    51.20     1.50  PERIOD  ALL       00043872
  582585.68000 4196142.59000 1.1258850e-01   51.15    51.15     1.50  PERIOD  ALL       00043872
  582587.18000 4196138.14000 9.7737200e-02   51.10    51.10     1.50  PERIOD  ALL       00043872
  582588.68000 4196133.69000 8.6451050e-02   50.78    50.78     1.50  PERIOD  ALL       00043872
  582590.17000 4196129.23000 7.7322740e-02   50.47    50.47     1.50  PERIOD  ALL       00043872
  582586.86000 4196123.55000 7.0750840e-02   50.19    50.69     1.50  PERIOD  ALL       00043872
  582582.06000 4196122.32000 7.1583190e-02   50.13    50.84     1.50  PERIOD  ALL       00043872
  582577.25000 4196121.08000 7.2308460e-02   50.08    50.96     1.50  PERIOD  ALL       00043872
  582572.45000 4196119.85000 7.2975460e-02   50.06    50.96     1.50  PERIOD  ALL       00043872
  582567.64000 4196118.62000 7.3618970e-02   50.05    51.02     1.50  PERIOD  ALL       00043872
  582562.84000 4196117.39000 7.4243970e-02   50.05    50.05     1.50  PERIOD  ALL       00043872
  582558.03000 4196116.16000 7.4879510e-02   50.05    50.05     1.50  PERIOD  ALL       00043872
  582553.23000 4196114.92000 7.5575200e-02   49.99    49.99     1.50  PERIOD  ALL       00043872
  582548.42000 4196113.69000 7.6337300e-02   49.90    50.30     1.50  PERIOD  ALL       00043872
  582543.61000 4196112.46000 7.7112620e-02   49.81    49.81     1.50  PERIOD  ALL       00043872
  582538.81000 4196111.23000 7.7881340e-02   49.73    50.32     1.50  PERIOD  ALL       00043872
  582534.00000 4196110.00000 7.8627740e-02   49.67    49.67     1.50  PERIOD  ALL       00043872
  582529.20000 4196108.76000 7.9341230e-02   49.62    49.62     1.50  PERIOD  ALL       00043872
  582524.39000 4196107.53000 8.0053960e-02   49.59    49.59     1.50  PERIOD  ALL       00043872
  582519.59000 4196106.30000 8.0724450e-02   49.59    49.59     1.50  PERIOD  ALL       00043872
  582514.78000 4196105.07000 8.1440720e-02   49.58    49.58     1.50  PERIOD  ALL       00043872
  582509.97000 4196103.84000 8.2321380e-02   49.50    49.50     1.50  PERIOD  ALL       00043872
  582505.17000 4196102.60000 8.3234860e-02   49.43    49.43     1.50  PERIOD  ALL       00043872
  582500.36000 4196101.37000 8.4209180e-02   49.36    49.36     1.50  PERIOD  ALL       00043872
  582495.56000 4196100.14000 8.5350580e-02   49.31    49.31     1.50  PERIOD  ALL       00043872
  582490.75000 4196098.91000 8.6752460e-02   49.29    49.29     1.50  PERIOD  ALL       00043872
  582485.95000 4196097.68000 8.8483920e-02   49.27    49.27     1.50  PERIOD  ALL       00043872
  582481.14000 4196096.44000 9.0580380e-02   49.27    49.27     1.50  PERIOD  ALL       00043872
  582476.34000 4196095.21000 9.2270150e-02   49.22    49.22     1.50  PERIOD  ALL       00043872
  582470.44000 4196098.23000 1.0459350e-01   49.32    49.32     1.50  PERIOD  ALL       00043872
  582469.36000 4196102.47000 1.1688660e-01   49.46    49.46     1.50  PERIOD  ALL       00043872
  582468.28000 4196106.72000 1.3128090e-01   49.58    49.58     1.50  PERIOD  ALL       00043872
```

```
582467.19000 4196110.97000 1.4741800e-01    49.68    49.68     1.50  PERIOD  ALL       00043872
582466.10000 4196115.21000 1.6433020e-01    49.78    49.78     1.50  PERIOD  ALL       00043872
582969.53000 4195797.56000 2.9518850e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on C- Non-Residential on A, B, D, E OFFSITE OVERALL (Worker)

HARP Project Summary Report 12/6/2022 6:08:20 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC4_OFFSITE
Project Output Directory: C:\HARP2\PROJECTS\TWC4_OFFSITE
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	48.29	0	1
SITE_B	9901	DieselExhPM	1	16.53	0	1
SITE_C	9901	DieselExhPM	1	46.39	0	1
SITE_D	9901	DieselExhPM	1	16.77	0	1
SITE_E	9901	DieselExhPM	1	9.68	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/1/2022 1:06:59 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC4_OFFSITE\hra\TWC4_OFFSITE_CHRONIC_NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\PROJECTS\TWC4_OFFSITE\hra\TWC4_OFFSITE_CHRONIC_NCChronicRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/1/2022 1:07:18 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	2734	ALL	582583	4196152	5.3999000e-02
2	2735	ALL	582592	4196125	5.1970000e-02
3	2739	ALL	582582	4196154	4.8649000e-02
4	696	ALL	582600	4196130	4.4837000e-02
5	688	ALL	582560	4196110	4.4716000e-02
6	701	ALL	582600	4196150	3.6912000e-02
7	689	ALL	582580	4196110	3.4272000e-02
8	2722	ALL	582384	4196095	3.1670000e-02
9	2721	ALL	582453	4196112	3.0182000e-02
10	681	ALL	582500	4196090	2.8774000e-02

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:37:39
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF  2747 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS    NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ _________
  582033.26000 4196289.55000 8.4461090e-04   44.86   239.60     1.50  PERIOD  ALL       00043872
  582098.16000 4196263.48000 1.3276210e-03   50.22   198.92     1.50  PERIOD  ALL       00043872
  582100.26000 4196247.28000 1.4988300e-03   50.77   198.92     1.50  PERIOD  ALL       00043872
  582096.16000 4196234.19000 1.6337460e-03   50.61   198.92     1.50  PERIOD  ALL       00043872
  582034.59000 4196258.60000 1.0244760e-03   46.16   239.60     1.50  PERIOD  ALL       00043872
  582037.90000 4196287.69000 8.7071760e-04   45.36   239.60     1.50  PERIOD  ALL       00043872
  582042.53000 4196285.83000 8.9626010e-04   46.24   239.60     1.50  PERIOD  ALL       00043872
  582047.17000 4196283.96000 9.2075590e-04   47.79   239.60     1.50  PERIOD  ALL       00043872
  582051.80000 4196282.10000 9.4146070e-04   48.91   198.92     1.50  PERIOD  ALL       00043872
  582056.44000 4196280.24000 9.6216440e-04   49.85   198.92     1.50  PERIOD  ALL       00043872
  582061.07000 4196278.38000 9.9009260e-04   50.18   198.92     1.50  PERIOD  ALL       00043872
  582065.71000 4196276.51000 1.0213910e-03   50.40   198.92     1.50  PERIOD  ALL       00043872
  582070.35000 4196274.65000 1.0559820e-03   50.50   198.92     1.50  PERIOD  ALL       00043872
  582074.98000 4196272.79000 1.0927300e-03   50.58   198.92     1.50  PERIOD  ALL       00043872
  582079.62000 4196270.93000 1.1312600e-03   50.68   198.92     1.50  PERIOD  ALL       00043872
  582084.25000 4196269.07000 1.1740080e-03   50.66   198.92     1.50  PERIOD  ALL       00043872
  582088.89000 4196267.20000 1.2191850e-03   50.66   198.92     1.50  PERIOD  ALL       00043872
  582093.52000 4196265.34000 1.2710380e-03   50.46   198.92     1.50  PERIOD  ALL       00043872
  582098.69000 4196259.43000 1.3634120e-03   50.48   198.92     1.50  PERIOD  ALL       00043872
  582099.21000 4196255.38000 1.4026510e-03   50.70   198.92     1.50  PERIOD  ALL       00043872
  582099.73000 4196251.33000 1.4494050e-03   50.72   198.92     1.50  PERIOD  ALL       00043872
  582098.89000 4196242.92000 1.5389000e-03   50.78   198.92     1.50  PERIOD  ALL       00043872
  582097.53000 4196238.55000 1.5843570e-03   50.71   198.92     1.50  PERIOD  ALL       00043872
  582091.76000 4196235.93000 1.5625730e-03   50.82   198.92     1.50  PERIOD  ALL       00043872
  582087.36000 4196237.68000 1.4990560e-03   50.90   198.92     1.50  PERIOD  ALL       00043872
  582082.97000 4196239.42000 1.4408170e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582078.57000 4196241.16000 1.3866030e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582074.17000 4196242.91000 1.3354650e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582069.77000 4196244.65000 1.2882460e-03   50.88   198.92     1.50  PERIOD  ALL       00043872
  582065.38000 4196246.39000 1.2436800e-03   50.83   198.92     1.50  PERIOD  ALL       00043872
  582060.98000 4196248.14000 1.2031340e-03   50.67   198.92     1.50  PERIOD  ALL       00043872
  582056.58000 4196249.88000 1.1654980e-03   50.46   198.92     1.50  PERIOD  ALL       00043872
  582052.18000 4196251.63000 1.1376600e-03   49.73   198.92     1.50  PERIOD  ALL       00043872
  582047.78000 4196253.37000 1.1127850e-03   48.78   198.92     1.50  PERIOD  ALL       00043872
  582043.39000 4196255.11000 1.0886810e-03   47.48   239.60     1.50  PERIOD  ALL       00043872
  582038.99000 4196256.86000 1.0565260e-03   46.60   239.60     1.50  PERIOD  ALL       00043872
  582034.40000 4196263.02000 9.9349550e-04   46.03   239.60     1.50  PERIOD  ALL       00043872
  582034.21000 4196267.44000 9.6452000e-04   45.87   239.60     1.50  PERIOD  ALL       00043872
  582034.02000 4196271.86000 9.3750190e-04   45.67   239.60     1.50  PERIOD  ALL       00043872
  582033.83000 4196276.29000 9.1216610e-04   45.46   239.60     1.50  PERIOD  ALL       00043872
  582033.64000 4196280.71000 8.8832440e-04   45.23   239.60     1.50  PERIOD  ALL       00043872
  582033.45000 4196285.13000 8.6583190e-04   45.01   239.60     1.50  PERIOD  ALL       00043872
  581942.98000 4196183.33000 1.2240320e-03   51.77   239.60     1.50  PERIOD  ALL       00043872
  581945.42000 4196182.66000 1.2497100e-03   51.19   239.60     1.50  PERIOD  ALL       00043872
  581956.94000 4196148.43000 1.7470790e-03   50.82   239.60     1.50  PERIOD  ALL       00043872
  581952.97000 4196130.72000 1.9728220e-03   50.79   239.60     1.50  PERIOD  ALL       00043872
  581943.39000 4196122.05000 1.9972860e-03   51.57   239.60     1.50  PERIOD  ALL       00043872
  581941.58000 4196113.92000 2.1002590e-03   51.51   239.60     1.50  PERIOD  ALL       00043872
  581919.00000 4196090.07000 2.1488790e-03   53.63   239.60     1.50  PERIOD  ALL       00043872
  581946.86000 4196178.38000 1.3035380e-03   51.06   239.60     1.50  PERIOD  ALL       00043872
  581948.30000 4196174.10000 1.3596370e-03   50.96   239.60     1.50  PERIOD  ALL       00043872
  581949.74000 4196169.82000 1.4176230e-03   50.92   239.60     1.50  PERIOD  ALL       00043872
  581951.18000 4196165.54000 1.4780370e-03   50.90   239.60     1.50  PERIOD  ALL       00043872
  581952.62000 4196161.27000 1.5410330e-03   50.88   239.60     1.50  PERIOD  ALL       00043872
  581954.06000 4196156.99000 1.6064740e-03   50.89   239.60     1.50  PERIOD  ALL       00043872
  581955.50000 4196152.71000 1.6748450e-03   50.89   239.60     1.50  PERIOD  ALL       00043872
  581955.95000 4196144.00000 1.8036010e-03   50.74   239.60     1.50  PERIOD  ALL       00043872
  581954.95000 4196139.58000 1.8600870e-03   50.70   239.60     1.50  PERIOD  ALL       00043872
  581953.96000 4196135.15000 1.9164290e-03   50.73   239.60     1.50  PERIOD  ALL       00043872
  581949.78000 4196127.83000 1.9805030e-03   51.11   239.60     1.50  PERIOD  ALL       00043872
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581946.58000 4196124.94000 1.9882930e-03    51.39   239.60     1.50  PERIOD  ALL       00043872
581942.48000 4196117.99000 2.0482650e-03    51.56   239.60     1.50  PERIOD  ALL       00043872
581938.35000 4196110.51000 2.1177830e-03    51.47   239.60     1.50  PERIOD  ALL       00043872
581935.13000 4196107.11000 2.1302600e-03    51.69   239.60     1.50  PERIOD  ALL       00043872
581931.90000 4196103.70000 2.1409520e-03    51.97   239.60     1.50  PERIOD  ALL       00043872
581928.68000 4196100.29000 2.1520910e-03    52.17   239.60     1.50  PERIOD  ALL       00043872
581925.45000 4196096.88000 2.1574250e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581922.23000 4196093.48000 2.1536830e-03    53.01   239.60     1.50  PERIOD  ALL       00043872
581920.20000 4196094.73000 2.1023120e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581921.40000 4196099.40000 2.0504870e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581922.60000 4196104.06000 1.9962150e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581923.80000 4196108.72000 1.9440640e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581924.99000 4196113.38000 1.8918620e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581926.19000 4196118.05000 1.8408350e-03    53.46   239.60     1.50  PERIOD  ALL       00043872
581927.39000 4196122.71000 1.8007980e-03    53.31   239.60     1.50  PERIOD  ALL       00043872
581928.59000 4196127.37000 1.7511890e-03    53.22   239.60     1.50  PERIOD  ALL       00043872
581929.79000 4196132.04000 1.6981980e-03    53.34   239.60     1.50  PERIOD  ALL       00043872
581930.99000 4196136.70000 1.6377900e-03    53.41   239.60     1.50  PERIOD  ALL       00043872
581932.19000 4196141.36000 1.5980800e-03    53.36   239.60     1.50  PERIOD  ALL       00043872
581933.39000 4196146.03000 1.5505820e-03    53.27   239.60     1.50  PERIOD  ALL       00043872
581934.59000 4196150.69000 1.5062350e-03    53.04   239.60     1.50  PERIOD  ALL       00043872
581935.79000 4196155.35000 1.4769430e-03    52.75   239.60     1.50  PERIOD  ALL       00043872
581936.98000 4196160.01000 1.4310860e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581938.18000 4196164.68000 1.3854510e-03    52.65   239.60     1.50  PERIOD  ALL       00043872
581939.38000 4196169.34000 1.3419910e-03    52.55   239.60     1.50  PERIOD  ALL       00043872
581940.58000 4196174.00000 1.3007690e-03    52.36   239.60     1.50  PERIOD  ALL       00043872
581941.78000 4196178.67000 1.2611450e-03    52.12   239.60     1.50  PERIOD  ALL       00043872
581947.23000 4195600.07000 7.8511550e-04    52.07   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195619.11000 8.3303070e-04    49.42   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195615.12000 8.1474640e-04    49.69   198.92     1.50  PERIOD  ALL       00043872
582029.86000 4195628.63000 8.4350610e-04    48.73   198.92     1.50  PERIOD  ALL       00043872
582030.17000 4195545.08000 5.4706340e-04    48.40   198.92     1.50  PERIOD  ALL       00043872
581948.92000 4195544.31000 5.9190330e-04    52.82   198.92     1.50  PERIOD  ALL       00043872
581948.30000 4195553.07000 6.1645440e-04    53.14   198.92     1.50  PERIOD  ALL       00043872
581931.10000 4195560.75000 6.5435290e-04    53.84   198.92     1.50  PERIOD  ALL       00043872
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582240.00000 4196050.00000 4.1885470e-02    47.90   198.92     1.50  PERIOD  ALL       00043872
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582320.00000 4196050.00000 5.5174740e-02    51.20    51.20     1.50  PERIOD  ALL       00043872
582340.00000 4196050.00000 5.1825230e-02    51.28    51.28     1.50  PERIOD  ALL       00043872
582360.00000 4196050.00000 4.8576210e-02    51.32    51.32     1.50  PERIOD  ALL       00043872
582380.00000 4196050.00000 4.6582690e-02    51.27    51.27     1.50  PERIOD  ALL       00043872
582400.00000 4196050.00000 4.5952830e-02    50.47    50.47     1.50  PERIOD  ALL       00043872
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582440.00000 4196050.00000 4.1989240e-02    48.84    48.84     1.50  PERIOD  ALL       00043872
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582520.00000 4196050.00000 3.2989700e-02    48.20    48.20     1.50  PERIOD  ALL       00043872
582540.00000 4196050.00000 3.2901170e-02    48.09    48.09     1.50  PERIOD  ALL       00043872
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582400.00000 4196070.00000 7.3772650e-02    50.70    50.70     1.50  PERIOD  ALL       00043872
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582440.00000 4196070.00000 6.5572340e-02    49.44    49.44     1.50  PERIOD  ALL       00043872
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582540.00000 4196070.00000 5.7112970e-02    48.19    48.19     1.50  PERIOD  ALL       00043872
582560.00000 4196070.00000 5.4067780e-02    48.20    48.20     1.50  PERIOD  ALL       00043872
582580.00000 4196070.00000 5.0758910e-02    47.99    47.99     1.50  PERIOD  ALL       00043872
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582400.00000 4196090.00000 1.0559130e-01    50.81    50.81     1.50  PERIOD  ALL       00043872
582420.00000 4196090.00000 9.4937090e-02    50.31    50.31     1.50  PERIOD  ALL       00043872
582440.00000 4196090.00000 1.0045680e-01    49.81    49.81     1.50  PERIOD  ALL       00043872
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582560.00000 4196110.00000 2.2365210e-01    49.13    51.02     1.50  PERIOD  ALL       00043872
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582280.00000 4196130.00000 5.3663610e-02    46.66   192.37     1.50  PERIOD  ALL       00043872
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582200.00000 4196150.00000 1.1421650e-02    45.41   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196150.00000 1.6033250e-02    45.43   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4196150.00000 2.2640790e-02    45.49   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4196150.00000 3.2076880e-02    45.50   192.37     1.50  PERIOD  ALL       00043872
582600.00000 4196150.00000 1.8461820e-01    48.60    51.28     1.50  PERIOD  ALL       00043872
582200.00000 4196170.00000 9.8510570e-03    45.47   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196170.00000 1.2759530e-02    45.16   198.92     1.50  PERIOD  ALL       00043872
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582260.00000 4196170.00000 2.6772840e-02    45.44   192.37     1.50  PERIOD  ALL       00043872
582600.00000 4196170.00000 1.2061580e-01    49.53    50.90     1.50  PERIOD  ALL       00043872
582200.00000 4196190.00000 7.6750570e-03    45.45   198.92     1.50  PERIOD  ALL       00043872
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582260.00000 4196190.00000 1.9781510e-02    45.28   192.37     1.50  PERIOD  ALL       00043872
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582380.00000 4196190.00000 5.0734890e-02    49.82    49.82     1.50  PERIOD  ALL       00043872
582400.00000 4196190.00000 5.4869850e-02    50.04    50.04     1.50  PERIOD  ALL       00043872
582420.00000 4196190.00000 6.4199220e-02    50.28    50.28     1.50  PERIOD  ALL       00043872
582440.00000 4196190.00000 7.4550840e-02    50.40    50.40     1.50  PERIOD  ALL       00043872
582480.00000 4196190.00000 8.6739680e-02    50.93    50.93     1.50  PERIOD  ALL       00043872
582500.00000 4196190.00000 8.8065530e-02    50.90    50.90     1.50  PERIOD  ALL       00043872
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582540.00000 4196190.00000 9.7142000e-02    51.05    51.05     1.50  PERIOD  ALL       00043872
582560.00000 4196190.00000 1.0627690e-01    51.12    51.12     1.50  PERIOD  ALL       00043872
582580.00000 4196190.00000 1.0594090e-01    50.77    50.77     1.50  PERIOD  ALL       00043872
582600.00000 4196190.00000 8.3904790e-02    49.76    49.76     1.50  PERIOD  ALL       00043872
582200.00000 4196210.00000 5.8092320e-03    45.22   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196210.00000 7.1837110e-03    44.81   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4196210.00000 9.8744300e-03    45.00   192.37     1.50  PERIOD  ALL       00043872
582260.00000 4196210.00000 1.4277810e-02    45.11   192.37     1.50  PERIOD  ALL       00043872
582360.00000 4196210.00000 3.6556750e-02    48.23    48.23     1.50  PERIOD  ALL       00043872
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582400.00000 4196210.00000 3.7750650e-02    49.60    49.60     1.50  PERIOD  ALL       00043872
582420.00000 4196210.00000 4.5643020e-02    50.01    50.01     1.50  PERIOD  ALL       00043872
582580.00000 4196210.00000 8.0931940e-02    50.36    50.36     1.50  PERIOD  ALL       00043872
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582200.00000 4196230.00000 4.3466320e-03    45.28   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196230.00000 5.0774370e-03    44.56   198.32     1.50  PERIOD  ALL       00043872
582240.00000 4196230.00000 6.7915090e-03    44.50   192.37     1.50  PERIOD  ALL       00043872
582260.00000 4196230.00000 1.0318860e-02    44.74   192.37     1.50  PERIOD  ALL       00043872
582300.00000 4196230.00000 2.1578540e-02    46.73    46.73     1.50  PERIOD  ALL       00043872
582320.00000 4196230.00000 2.2423670e-02    46.53    46.53     1.50  PERIOD  ALL       00043872
582340.00000 4196230.00000 2.4128640e-02    47.04    47.04     1.50  PERIOD  ALL       00043872
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582380.00000 4196230.00000 2.4136840e-02    47.57    47.57     1.50  PERIOD  ALL       00043872
582400.00000 4196230.00000 2.5675030e-02    49.10    49.10     1.50  PERIOD  ALL       00043872
582420.00000 4196230.00000 2.9806170e-02    49.89    49.89     1.50  PERIOD  ALL       00043872
582580.00000 4196230.00000 6.9366540e-02    50.08    50.08     1.50  PERIOD  ALL       00043872
582600.00000 4196230.00000 5.1602770e-02    49.19    49.19     1.50  PERIOD  ALL       00043872
582200.00000 4196250.00000 3.3977490e-03    45.48   192.37     1.50  PERIOD  ALL       00043872
582220.00000 4196250.00000 3.7060370e-03    44.60   192.37     1.50  PERIOD  ALL       00043872
582240.00000 4196250.00000 4.4139680e-03    44.20   192.37     1.50  PERIOD  ALL       00043872
582260.00000 4196250.00000 5.9014280e-03    44.43   192.37     1.50  PERIOD  ALL       00043872
582280.00000 4196250.00000 1.1511200e-02    44.89    44.89     1.50  PERIOD  ALL       00043872
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582300.00000 4196250.00000 1.3005730e-02    45.34    45.34     1.50  PERIOD  ALL       00043872
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582340.00000 4196250.00000 1.5330060e-02    45.72    45.72     1.50  PERIOD  ALL       00043872
582360.00000 4196250.00000 1.6071220e-02    46.15    46.15     1.50  PERIOD  ALL       00043872
582380.00000 4196250.00000 1.6654410e-02    47.09    47.09     1.50  PERIOD  ALL       00043872
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582440.00000 4196250.00000 2.3025040e-02    49.87    49.87     1.50  PERIOD  ALL       00043872
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582480.00000 4196250.00000 4.6112930e-02    50.69    50.69     1.50  PERIOD  ALL       00043872
582560.00000 4196250.00000 7.5499250e-02    50.66    50.66     1.50  PERIOD  ALL       00043872
582580.00000 4196250.00000 5.2387890e-02    49.59    49.59     1.50  PERIOD  ALL       00043872
582600.00000 4196250.00000 4.0173950e-02    48.65    48.65     1.50  PERIOD  ALL       00043872
582200.00000 4196270.00000 2.8549230e-03    46.14   192.37     1.50  PERIOD  ALL       00043872
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582280.00000 4196270.00000 6.4748450e-03    44.37    44.37     1.50  PERIOD  ALL       00043872
582300.00000 4196270.00000 8.0772760e-03    45.23    45.23     1.50  PERIOD  ALL       00043872
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582340.00000 4196270.00000 1.0491080e-02    45.48    45.48     1.50  PERIOD  ALL       00043872
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582380.00000 4196270.00000 1.2117200e-02    46.71    46.71     1.50  PERIOD  ALL       00043872
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582420.00000 4196270.00000 1.3953370e-02    48.69    48.69     1.50  PERIOD  ALL       00043872
582440.00000 4196270.00000 1.6094610e-02    49.73    49.73     1.50  PERIOD  ALL       00043872
582460.00000 4196270.00000 1.9301950e-02    50.16    50.16     1.50  PERIOD  ALL       00043872
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582540.00000 4196270.00000 4.1711760e-02    50.83    50.83     1.50  PERIOD  ALL       00043872
582560.00000 4196270.00000 4.1380480e-02    51.06    51.06     1.50  PERIOD  ALL       00043872
582580.00000 4196270.00000 3.5795580e-02    49.62    50.94     1.50  PERIOD  ALL       00043872
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582080.00000 4195850.00000 2.9698490e-03    53.49   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195850.00000 2.9812010e-03    52.87   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4195850.00000 2.9606410e-03    52.89   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195850.00000 2.9958950e-03    51.72   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195850.00000 3.0514030e-03    50.42   198.92     1.50  PERIOD  ALL       00043872
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582280.00000 4195850.00000 3.7388420e-03    49.92   198.92     1.50  PERIOD  ALL       00043872
582300.00000 4195850.00000 3.4094190e-03    50.24   198.42     1.50  PERIOD  ALL       00043872
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582480.00000 4195850.00000 3.1665620e-03    45.85    45.85     1.50  PERIOD  ALL       00043872
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582560.00000 4195850.00000 3.3649320e-03    41.80    41.80     1.50  PERIOD  ALL       00043872
582580.00000 4195850.00000 3.3454890e-03    41.77    41.77     1.50  PERIOD  ALL       00043872
582600.00000 4195850.00000 3.4106290e-03    41.65    41.65     1.50  PERIOD  ALL       00043872
582620.00000 4195850.00000 3.5324820e-03    42.02    42.02     1.50  PERIOD  ALL       00043872
582640.00000 4195850.00000 3.5061980e-03    42.57    42.57     1.50  PERIOD  ALL       00043872
582660.00000 4195850.00000 3.4135320e-03    43.43    43.43     1.50  PERIOD  ALL       00043872
582680.00000 4195850.00000 3.4734910e-03    44.38    44.38     1.50  PERIOD  ALL       00043872
582700.00000 4195850.00000 3.6485160e-03    44.84    44.84     1.50  PERIOD  ALL       00043872
582720.00000 4195850.00000 3.7677210e-03    44.92    44.92     1.50  PERIOD  ALL       00043872
582740.00000 4195850.00000 3.6738830e-03    44.50    44.50     1.50  PERIOD  ALL       00043872
582760.00000 4195850.00000 3.6163930e-03    44.46    44.46     1.50  PERIOD  ALL       00043872
582780.00000 4195850.00000 3.5849700e-03    44.75    44.75     1.50  PERIOD  ALL       00043872
582800.00000 4195850.00000 3.5630250e-03    44.73    44.73     1.50  PERIOD  ALL       00043872
582000.00000 4195870.00000 3.1661440e-03    53.56   198.92     1.50  PERIOD  ALL       00043872
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582080.00000 4195870.00000 3.4114640e-03    52.86   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4195870.00000 3.4509860e-03    52.61   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195870.00000 3.4565890e-03    52.44   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195870.00000 3.4951940e-03    51.11   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195870.00000 3.5613880e-03    49.90   198.92     1.50  PERIOD  ALL       00043872
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582240.00000 4195870.00000 3.6949970e-03    49.64   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4195870.00000 4.2979380e-03    49.66   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195870.00000 3.8419600e-03    49.79   198.92     1.50  PERIOD  ALL       00043872
582300.00000 4195870.00000 3.7140860e-03    50.42   192.37     1.50  PERIOD  ALL       00043872
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582380.00000 4195870.00000 3.3327290e-03    50.22   192.37     1.50  PERIOD  ALL       00043872
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582460.00000 4195870.00000 3.5396730e-03    46.09    46.09     1.50  PERIOD  ALL       00043872
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582680.00000 4195870.00000 4.2191530e-03    44.47    44.47     1.50  PERIOD  ALL       00043872
582700.00000 4195870.00000 4.3101120e-03    45.02    45.02     1.50  PERIOD  ALL       00043872
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582740.00000 4195870.00000 4.3699510e-03    44.42    44.42     1.50  PERIOD  ALL       00043872
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582160.00000 4195890.00000 4.0946150e-03    50.90   198.92     1.50  PERIOD  ALL       00043872
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582280.00000 4195890.00000 4.3525160e-03    49.50   198.92     1.50  PERIOD  ALL       00043872
582300.00000 4195890.00000 4.2585190e-03    50.04   192.37     1.50  PERIOD  ALL       00043872
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582460.00000 4195890.00000 4.1048710e-03    46.09    46.09     1.50  PERIOD  ALL       00043872
582480.00000 4195890.00000 4.4125100e-03    44.92    44.92     1.50  PERIOD  ALL       00043872
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582100.00000 4195910.00000 4.5837880e-03    52.33   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4195910.00000 4.7404460e-03    51.74   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195910.00000 4.8325700e-03    50.58   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195910.00000 4.9700660e-03    49.07   198.92     1.50  PERIOD  ALL       00043872
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582600.00000 4195910.00000 5.1891470e-03    42.47    42.47     1.50  PERIOD  ALL       00043872
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582640.00000 4195910.00000 5.2796200e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
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582680.00000 4195910.00000 5.5084610e-03    44.76    44.76     1.50  PERIOD  ALL       00043872
582700.00000 4195910.00000 5.7032220e-03    44.82    44.82     1.50  PERIOD  ALL       00043872
582720.00000 4195910.00000 6.0542500e-03    44.34    44.34     1.50  PERIOD  ALL       00043872
582740.00000 4195910.00000 6.0222300e-03    43.60    43.60     1.50  PERIOD  ALL       00043872
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582780.00000 4195910.00000 6.0790050e-03    42.00    42.00     1.50  PERIOD  ALL       00043872
582800.00000 4195910.00000 5.8396090e-03    41.53    41.53     1.50  PERIOD  ALL       00043872
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582020.00000 4195930.00000 4.3931540e-03    52.41   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4195930.00000 4.6591970e-03    51.87   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4195930.00000 4.9171870e-03    51.04   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4195930.00000 5.1406380e-03    50.83   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195930.00000 5.2915960e-03    52.17   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4195930.00000 5.4425240e-03    52.13   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195930.00000 5.6292570e-03    50.28   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195930.00000 5.7490190e-03    50.03   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195930.00000 5.9368440e-03    48.76   198.92     1.50  PERIOD  ALL       00043872
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582280.00000 4195930.00000 5.8804570e-03    49.94   198.92     1.50  PERIOD  ALL       00043872
582300.00000 4195930.00000 5.6956730e-03    50.43   192.37     1.50  PERIOD  ALL       00043872
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582380.00000 4195930.00000 5.4874610e-03    49.44   192.37     1.50  PERIOD  ALL       00043872
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582480.00000 4195930.00000 6.2262810e-03    45.22    46.49     1.50  PERIOD  ALL       00043872
582500.00000 4195930.00000 5.9396180e-03    44.19    44.19     1.50  PERIOD  ALL       00043872
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582660.00000 4195930.00000 6.3359660e-03    43.82    43.82     1.50  PERIOD  ALL       00043872
582680.00000 4195930.00000 6.4837710e-03    43.88    43.88     1.50  PERIOD  ALL       00043872
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582780.00000 4195930.00000 7.0573250e-03    42.27    42.27     1.50  PERIOD  ALL       00043872
582800.00000 4195930.00000 6.6994250e-03    41.22    41.22     1.50  PERIOD  ALL       00043872
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582060.00000 4195950.00000 5.4867570e-03    50.60   198.92     1.50  PERIOD  ALL       00043872
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582160.00000 4195950.00000 6.9100660e-03    48.93   198.92     1.50  PERIOD  ALL       00043872
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582360.00000 4195950.00000 7.2039720e-03    48.99   192.37     1.50  PERIOD  ALL       00043872
582380.00000 4195950.00000 7.2970350e-03    47.88   192.37     1.50  PERIOD  ALL       00043872
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582480.00000 4195950.00000 7.5107950e-03    44.98    44.98     1.50  PERIOD  ALL       00043872
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582640.00000 4195950.00000 7.5546240e-03    43.62    43.62     1.50  PERIOD  ALL       00043872
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582740.00000 4195950.00000 7.9950720e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
582760.00000 4195950.00000 7.9239820e-03    43.23    43.23     1.50  PERIOD  ALL       00043872
582780.00000 4195950.00000 7.9200590e-03    43.19    43.19     1.50  PERIOD  ALL       00043872
582800.00000 4195950.00000 7.4776250e-03    41.72    41.72     1.50  PERIOD  ALL       00043872
582000.00000 4195970.00000 4.6343110e-03    50.10   239.60     1.50  PERIOD  ALL       00043872
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582120.00000 4195970.00000 7.5294320e-03    48.61   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195970.00000 7.9606090e-03    48.24   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195970.00000 8.3481080e-03    47.92   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195970.00000 8.7255000e-03    47.51   198.92     1.50  PERIOD  ALL       00043872
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582240.00000 4195970.00000 9.5995370e-03    48.14   198.92     1.50  PERIOD  ALL       00043872
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582280.00000 4195970.00000 9.0605150e-03    50.20   192.37     1.50  PERIOD  ALL       00043872
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582400.00000 4195970.00000 9.8790690e-03    47.04    47.04     1.50  PERIOD  ALL       00043872
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582480.00000 4195970.00000 9.4447390e-03    45.49    45.49     1.50  PERIOD  ALL       00043872
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582680.00000 4195970.00000 9.6210390e-03    43.63    43.63     1.50  PERIOD  ALL       00043872
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582080.00000 4195990.00000 7.1989760e-03    49.20   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195990.00000 7.9494040e-03    48.61   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4195990.00000 9.4436820e-03    48.02   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195990.00000 1.0117150e-02    47.73   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195990.00000 1.0749610e-02    47.51   198.92     1.50  PERIOD  ALL       00043872
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582260.00000 4195990.00000 1.1965500e-02    48.82   198.92     1.50  PERIOD  ALL       00043872
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582340.00000 4195990.00000 1.2911950e-02    50.32   192.37     1.50  PERIOD  ALL       00043872
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582380.00000 4195990.00000 1.3704330e-02    49.19    49.51     1.50  PERIOD  ALL       00043872
582400.00000 4195990.00000 1.3921830e-02    47.72    47.72     1.50  PERIOD  ALL       00043872
582420.00000 4195990.00000 1.3688670e-02    47.34    47.34     1.50  PERIOD  ALL       00043872
582440.00000 4195990.00000 1.3346810e-02    46.61    48.48     1.50  PERIOD  ALL       00043872
582460.00000 4195990.00000 1.3054680e-02    46.81    46.81     1.50  PERIOD  ALL       00043872
582480.00000 4195990.00000 1.2502250e-02    46.06    46.06     1.50  PERIOD  ALL       00043872
582500.00000 4195990.00000 1.2790560e-02    46.41    46.41     1.50  PERIOD  ALL       00043872
582520.00000 4195990.00000 1.1994950e-02    46.72    46.72     1.50  PERIOD  ALL       00043872
582540.00000 4195990.00000 1.1654890e-02    46.76    46.76     1.50  PERIOD  ALL       00043872
582560.00000 4195990.00000 1.1582530e-02    47.47    47.47     1.50  PERIOD  ALL       00043872
582580.00000 4195990.00000 1.1662980e-02    47.80    47.80     1.50  PERIOD  ALL       00043872
582600.00000 4195990.00000 1.1821110e-02    47.70    47.70     1.50  PERIOD  ALL       00043872
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582620.00000 4195990.00000 1.1987730e-02    47.39    47.91     1.50  PERIOD  ALL       00043872
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582660.00000 4195990.00000 1.2067860e-02    43.88    47.91     1.50  PERIOD  ALL       00043872
582680.00000 4195990.00000 1.1965060e-02    43.68    43.68     1.50  PERIOD  ALL       00043872
582700.00000 4195990.00000 1.1758920e-02    43.77    43.77     1.50  PERIOD  ALL       00043872
582720.00000 4195990.00000 1.1499970e-02    43.75    43.75     1.50  PERIOD  ALL       00043872
582740.00000 4195990.00000 1.1003280e-02    43.28    43.28     1.50  PERIOD  ALL       00043872
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582780.00000 4195990.00000 1.0332520e-02    43.11    43.11     1.50  PERIOD  ALL       00043872
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582020.00000 4196010.00000 5.2950820e-03    50.03   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196010.00000 5.9486110e-03    50.65   198.92     1.50  PERIOD  ALL       00043872
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582080.00000 4196010.00000 7.6803090e-03    48.93   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196010.00000 8.7199670e-03    48.44   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196010.00000 9.8771770e-03    47.29   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196010.00000 1.1112680e-02    47.35   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196010.00000 1.2346520e-02    48.05   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196010.00000 1.3505530e-02    47.51   198.92     1.50  PERIOD  ALL       00043872
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582220.00000 4196010.00000 1.4889440e-02    46.58   198.92     1.50  PERIOD  ALL       00043872
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582260.00000 4196010.00000 1.6736990e-02    47.83   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4196010.00000 1.6558780e-02    50.51   192.37     1.50  PERIOD  ALL       00043872
582300.00000 4196010.00000 1.7036400e-02    50.88   192.37     1.50  PERIOD  ALL       00043872
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582340.00000 4196010.00000 1.8526440e-02    50.90    50.90     1.50  PERIOD  ALL       00043872
582360.00000 4196010.00000 1.9051430e-02    51.16    51.16     1.50  PERIOD  ALL       00043872
582380.00000 4196010.00000 1.9698370e-02    50.10    50.10     1.50  PERIOD  ALL       00043872
582400.00000 4196010.00000 2.0027370e-02    48.95    48.95     1.50  PERIOD  ALL       00043872
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582440.00000 4196010.00000 1.8950130e-02    48.23    48.23     1.50  PERIOD  ALL       00043872
582460.00000 4196010.00000 1.8112140e-02    47.33    47.33     1.50  PERIOD  ALL       00043872
582480.00000 4196010.00000 1.6923720e-02    46.62    46.62     1.50  PERIOD  ALL       00043872
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582520.00000 4196010.00000 1.5688740e-02    46.68    46.68     1.50  PERIOD  ALL       00043872
582540.00000 4196010.00000 1.5383360e-02    47.01    47.01     1.50  PERIOD  ALL       00043872
582560.00000 4196010.00000 1.5419670e-02    47.62    47.62     1.50  PERIOD  ALL       00043872
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582640.00000 4196010.00000 1.5779260e-02    46.00    47.82     1.50  PERIOD  ALL       00043872
582660.00000 4196010.00000 1.5461340e-02    44.30    47.88     1.50  PERIOD  ALL       00043872
582680.00000 4196010.00000 1.4994670e-02    43.92    43.92     1.50  PERIOD  ALL       00043872
582700.00000 4196010.00000 1.4381880e-02    43.70    43.70     1.50  PERIOD  ALL       00043872
582720.00000 4196010.00000 1.3711150e-02    43.58    43.58     1.50  PERIOD  ALL       00043872
582740.00000 4196010.00000 1.3164740e-02    43.21    43.21     1.50  PERIOD  ALL       00043872
582760.00000 4196010.00000 1.1946010e-02    42.93    42.93     1.50  PERIOD  ALL       00043872
582780.00000 4196010.00000 1.1684730e-02    43.19    43.19     1.50  PERIOD  ALL       00043872
582800.00000 4196010.00000 1.0495460e-02    42.88    42.88     1.50  PERIOD  ALL       00043872
582000.00000 4196030.00000 4.5330700e-03    51.19   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196030.00000 5.1336950e-03    51.03   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196030.00000 5.8611040e-03    50.67   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196030.00000 6.7545300e-03    49.96   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196030.00000 7.8562520e-03    48.65   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196030.00000 9.1629080e-03    48.36   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196030.00000 1.0756390e-02    47.11   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196030.00000 1.2680050e-02    46.94   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196030.00000 1.4954120e-02    47.26   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196030.00000 1.7309740e-02    46.57   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4196030.00000 1.8812680e-02    46.02   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196030.00000 2.0502180e-02    46.13   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4196030.00000 2.3202270e-02    47.03   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4196030.00000 2.6149570e-02    47.88   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4196030.00000 2.6086770e-02    50.76   192.37     1.50  PERIOD  ALL       00043872
582300.00000 4196030.00000 2.6766530e-02    51.25   192.37     1.50  PERIOD  ALL       00043872
582320.00000 4196030.00000 2.8075130e-02    51.28    51.28     1.50  PERIOD  ALL       00043872
582340.00000 4196030.00000 2.8829590e-02    51.29    51.29     1.50  PERIOD  ALL       00043872
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582360.00000 4196030.00000 2.9173450e-02    51.29    51.29     1.50  PERIOD  ALL       00043872
582380.00000 4196030.00000 2.9532700e-02    50.80    50.80     1.50  PERIOD  ALL       00043872
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582420.00000 4196030.00000 2.8904910e-02    49.60    49.60     1.50  PERIOD  ALL       00043872
582440.00000 4196030.00000 2.7551550e-02    49.03    49.03     1.50  PERIOD  ALL       00043872
582460.00000 4196030.00000 2.5998250e-02    47.90    47.90     1.50  PERIOD  ALL       00043872
582480.00000 4196030.00000 2.3813620e-02    47.20    47.20     1.50  PERIOD  ALL       00043872
582500.00000 4196030.00000 2.2699140e-02    47.35    47.35     1.50  PERIOD  ALL       00043872
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582540.00000 4196030.00000 2.1514820e-02    47.67    47.67     1.50  PERIOD  ALL       00043872
582560.00000 4196030.00000 2.1658960e-02    47.65    47.65     1.50  PERIOD  ALL       00043872
582580.00000 4196030.00000 2.1794420e-02    47.31    47.31     1.50  PERIOD  ALL       00043872
582600.00000 4196030.00000 2.1804380e-02    47.40    47.40     1.50  PERIOD  ALL       00043872
582620.00000 4196030.00000 2.1579650e-02    47.70    47.70     1.50  PERIOD  ALL       00043872
582640.00000 4196030.00000 2.0909680e-02    45.25    47.80     1.50  PERIOD  ALL       00043872
582660.00000 4196030.00000 1.9979100e-02    44.52    44.52     1.50  PERIOD  ALL       00043872
582680.00000 4196030.00000 1.8797020e-02    43.92    43.92     1.50  PERIOD  ALL       00043872
582700.00000 4196030.00000 1.7487130e-02    43.36    43.36     1.50  PERIOD  ALL       00043872
582720.00000 4196030.00000 1.6203700e-02    43.12    43.12     1.50  PERIOD  ALL       00043872
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582760.00000 4196030.00000 1.3688260e-02    42.83    42.83     1.50  PERIOD  ALL       00043872
582780.00000 4196030.00000 1.2992630e-02    42.98    42.98     1.50  PERIOD  ALL       00043872
582800.00000 4196030.00000 1.1466340e-02    41.78    42.64     1.50  PERIOD  ALL       00043872
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582020.00000 4196050.00000 4.8101700e-03    51.55   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196050.00000 5.5420110e-03    50.81   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196050.00000 6.4534310e-03    49.98   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196050.00000 7.6044350e-03    49.09   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196050.00000 9.0647350e-03    48.43   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4196050.00000 1.3451810e-02    46.30   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196050.00000 1.6934540e-02    46.38   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196050.00000 2.1511630e-02    45.85   198.92     1.50  PERIOD  ALL       00043872
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582640.00000 4196050.00000 2.8038030e-02    44.67    47.87     1.50  PERIOD  ALL       00043872
582660.00000 4196050.00000 2.5841540e-02    44.59    44.59     1.50  PERIOD  ALL       00043872
582680.00000 4196050.00000 2.3387810e-02    44.02    44.02     1.50  PERIOD  ALL       00043872
582700.00000 4196050.00000 2.0982620e-02    43.26    43.26     1.50  PERIOD  ALL       00043872
582720.00000 4196050.00000 1.8861180e-02    43.18    43.18     1.50  PERIOD  ALL       00043872
582740.00000 4196050.00000 1.7108270e-02    43.03    43.03     1.50  PERIOD  ALL       00043872
582760.00000 4196050.00000 1.5152980e-02    42.73    42.73     1.50  PERIOD  ALL       00043872
582780.00000 4196050.00000 1.4132120e-02    42.89    42.89     1.50  PERIOD  ALL       00043872
582800.00000 4196050.00000 1.2269270e-02    40.24    42.91     1.50  PERIOD  ALL       00043872
582000.00000 4196070.00000 3.8190760e-03    52.41   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196070.00000 4.3557980e-03    51.91   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196070.00000 5.0436820e-03    50.72   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196070.00000 5.8918100e-03    49.82   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196070.00000 6.9407580e-03    49.52   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196070.00000 8.2900310e-03    49.58   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196070.00000 1.0250050e-02    48.05   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196070.00000 1.2833080e-02    46.10   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196070.00000 1.6777120e-02    45.91   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196070.00000 2.2612370e-02    45.51   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196070.00000 4.2872050e-02    45.89    47.90     1.50  PERIOD  ALL       00043872
582640.00000 4196070.00000 3.7813270e-02    44.51    47.87     1.50  PERIOD  ALL       00043872
582660.00000 4196070.00000 3.3063360e-02    44.64    44.64     1.50  PERIOD  ALL       00043872
582680.00000 4196070.00000 2.8560410e-02    44.40    44.40     1.50  PERIOD  ALL       00043872
582700.00000 4196070.00000 2.4583130e-02    43.31    43.31     1.50  PERIOD  ALL       00043872
582720.00000 4196070.00000 2.1407370e-02    43.12    43.12     1.50  PERIOD  ALL       00043872
582740.00000 4196070.00000 1.8939820e-02    42.79    42.79     1.50  PERIOD  ALL       00043872
582760.00000 4196070.00000 1.6453230e-02    42.64    42.64     1.50  PERIOD  ALL       00043872
582780.00000 4196070.00000 1.5013550e-02    42.75    42.75     1.50  PERIOD  ALL       00043872
582800.00000 4196070.00000 1.2842580e-02    38.83    42.96     1.50  PERIOD  ALL       00043872
582000.00000 4196090.00000 3.3926590e-03    51.88   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196090.00000 3.8448210e-03    51.77   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196090.00000 4.4404120e-03    50.56   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196090.00000 5.1729400e-03    49.61   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196090.00000 6.0662680e-03    49.29   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196090.00000 7.1927760e-03    49.39   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196090.00000 8.8277780e-03    48.33   198.92     1.50  PERIOD  ALL       00043872
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582160.00000 4196090.00000 1.4252660e-02    45.74   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196090.00000 1.9244990e-02    45.29   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196090.00000 6.1446890e-02    44.69    51.15     1.50  PERIOD  ALL       00043872
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582060.00000 4196110.00000 4.4232630e-03    49.31   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196110.00000 5.1509870e-03    48.89   198.92     1.50  PERIOD  ALL       00043872
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582180.00000 4196110.00000 1.3735170e-02    45.33   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196110.00000 8.7739620e-02    44.72    51.28     1.50  PERIOD  ALL       00043872
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582660.00000 4196110.00000 4.7509590e-02    44.10    44.10     1.50  PERIOD  ALL       00043872
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582760.00000 4196110.00000 1.7889770e-02    42.44    42.44     1.50  PERIOD  ALL       00043872
582780.00000 4196110.00000 1.5695710e-02    40.75    42.63     1.50  PERIOD  ALL       00043872
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582080.00000 4196130.00000 4.2913410e-03    48.74   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196130.00000 5.9063900e-03    48.44   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196130.00000 7.1172780e-03    47.62   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196130.00000 8.7674720e-03    46.40   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196130.00000 1.0610270e-02    45.54   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196130.00000 1.0838680e-01    45.07    51.28     1.50  PERIOD  ALL       00043872
582640.00000 4196130.00000 7.0426710e-02    44.63    51.24     1.50  PERIOD  ALL       00043872
582660.00000 4196130.00000 5.0549290e-02    44.31    44.31     1.50  PERIOD  ALL       00043872
582680.00000 4196130.00000 3.8529000e-02    44.01    44.01     1.50  PERIOD  ALL       00043872
582700.00000 4196130.00000 3.0599230e-02    43.66    43.66     1.50  PERIOD  ALL       00043872
582720.00000 4196130.00000 2.5119910e-02    43.23    43.23     1.50  PERIOD  ALL       00043872
582740.00000 4196130.00000 2.0849140e-02    42.45    42.45     1.50  PERIOD  ALL       00043872
582760.00000 4196130.00000 1.7822780e-02    42.12    42.12     1.50  PERIOD  ALL       00043872
582780.00000 4196130.00000 1.5395860e-02    39.15    42.63     1.50  PERIOD  ALL       00043872
582800.00000 4196130.00000 1.3141010e-02    37.34    42.66     1.50  PERIOD  ALL       00043872
582000.00000 4196150.00000 2.1606700e-03    49.59   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196150.00000 2.4210810e-03    49.09   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196150.00000 2.7236990e-03    48.92   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196150.00000 3.0767610e-03    49.10   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196150.00000 3.5309060e-03    48.76   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196150.00000 4.1036220e-03    48.37   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196150.00000 4.8124850e-03    48.42   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196150.00000 5.8041670e-03    47.41   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196150.00000 7.2103460e-03    46.65   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196150.00000 8.7476510e-03    45.80   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196150.00000 1.0186610e-01    45.82    51.28     1.50  PERIOD  ALL       00043872
582640.00000 4196150.00000 6.7726230e-02    45.31    51.18     1.50  PERIOD  ALL       00043872
582660.00000 4196150.00000 4.8968130e-02    44.99    44.99     1.50  PERIOD  ALL       00043872
582680.00000 4196150.00000 3.7400180e-02    44.58    44.58     1.50  PERIOD  ALL       00043872
582700.00000 4196150.00000 2.9715510e-02    44.00    44.00     1.50  PERIOD  ALL       00043872
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582780.00000 4196150.00000 1.4840230e-02    38.35    42.39     1.50  PERIOD  ALL       00043872
582800.00000 4196150.00000 1.2743880e-02    37.24    42.28     1.50  PERIOD  ALL       00043872
582000.00000 4196170.00000 1.8189920e-03    49.06   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196170.00000 2.0198210e-03    48.84   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196170.00000 2.2518370e-03    48.89   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196170.00000 2.5224680e-03    49.19   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196170.00000 2.8794540e-03    48.77   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196170.00000 3.3313110e-03    48.33   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196170.00000 3.9108210e-03    48.17   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196170.00000 4.7075220e-03    47.63   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196170.00000 5.9355920e-03    46.35   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196170.00000 7.1139120e-03    46.00   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196170.00000 8.3279940e-02    47.84    47.84     1.50  PERIOD  ALL       00043872
582640.00000 4196170.00000 5.9295040e-02    46.93    46.93     1.50  PERIOD  ALL       00043872
582660.00000 4196170.00000 4.4258670e-02    45.91    45.91     1.50  PERIOD  ALL       00043872
582680.00000 4196170.00000 3.4416030e-02    44.97    44.97     1.50  PERIOD  ALL       00043872
582700.00000 4196170.00000 2.7666450e-02    44.00    44.00     1.50  PERIOD  ALL       00043872
582720.00000 4196170.00000 2.2971300e-02    43.00    43.00     1.50  PERIOD  ALL       00043872
582740.00000 4196170.00000 1.9176530e-02    42.13    42.13     1.50  PERIOD  ALL       00043872
582760.00000 4196170.00000 1.6887630e-02    40.89    42.08     1.50  PERIOD  ALL       00043872
582780.00000 4196170.00000 1.4039470e-02    37.67    43.50     1.50  PERIOD  ALL       00043872
582800.00000 4196170.00000 1.2120220e-02    36.76    42.21     1.50  PERIOD  ALL       00043872
582000.00000 4196190.00000 1.5244430e-03    48.80   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196190.00000 1.6819210e-03    48.52   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196190.00000 1.8493650e-03    49.18   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196190.00000 2.0627850e-03    49.22   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196190.00000 2.3386730e-03    48.79   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196190.00000 2.6880060e-03    48.37   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196190.00000 3.1530700e-03    47.98   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196190.00000 3.7910500e-03    47.45   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196190.00000 4.5916240e-03    46.40   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196190.00000 5.6210990e-03    46.08   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196190.00000 6.4600180e-02    48.36    48.36     1.50  PERIOD  ALL       00043872
582640.00000 4196190.00000 4.9294900e-02    47.10    47.70     1.50  PERIOD  ALL       00043872
582660.00000 4196190.00000 3.8266540e-02    45.33    45.33     1.50  PERIOD  ALL       00043872
582680.00000 4196190.00000 3.0656430e-02    44.78    44.78     1.50  PERIOD  ALL       00043872
582700.00000 4196190.00000 2.5193760e-02    44.72    44.72     1.50  PERIOD  ALL       00043872
582720.00000 4196190.00000 2.0970780e-02    42.72    44.94     1.50  PERIOD  ALL       00043872
582740.00000 4196190.00000 1.7761470e-02    42.02    42.02     1.50  PERIOD  ALL       00043872
582760.00000 4196190.00000 1.5560650e-02    39.83    42.08     1.50  PERIOD  ALL       00043872
582780.00000 4196190.00000 1.3083770e-02    37.06    42.21     1.50  PERIOD  ALL       00043872
582800.00000 4196190.00000 1.1387200e-02    36.62    42.08     1.50  PERIOD  ALL       00043872
582000.00000 4196210.00000 1.2808030e-03    48.65   239.60     1.50  PERIOD  ALL       00043872
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582040.00000 4196210.00000 1.5275350e-03    49.38   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196210.00000 1.6831640e-03    49.77   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196210.00000 1.8909150e-03    49.52   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196210.00000 2.1555310e-03    49.19   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196210.00000 2.5421870e-03    48.11   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196210.00000 3.0594290e-03    47.09   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196210.00000 3.6497110e-03    46.46   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196210.00000 4.3682640e-03    46.08   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196210.00000 5.1058870e-02    49.05    49.05     1.50  PERIOD  ALL       00043872
582640.00000 4196210.00000 4.0516790e-02    46.11    49.23     1.50  PERIOD  ALL       00043872
582660.00000 4196210.00000 3.2670060e-02    44.95    49.17     1.50  PERIOD  ALL       00043872
582680.00000 4196210.00000 2.6899890e-02    44.68    44.68     1.50  PERIOD  ALL       00043872
582700.00000 4196210.00000 2.2567030e-02    44.77    44.77     1.50  PERIOD  ALL       00043872
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582740.00000 4196210.00000 1.6270740e-02    41.79    41.79     1.50  PERIOD  ALL       00043872
582760.00000 4196210.00000 1.4134410e-02    38.53    44.94     1.50  PERIOD  ALL       00043872
582780.00000 4196210.00000 1.2083060e-02    36.73    44.94     1.50  PERIOD  ALL       00043872
582800.00000 4196210.00000 1.0597030e-02    36.60    36.60     1.50  PERIOD  ALL       00043872
582000.00000 4196230.00000 1.0882780e-03    48.27   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196230.00000 1.1924220e-03    47.18   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196230.00000 1.2901360e-03    48.70   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196230.00000 1.3952940e-03    50.20   198.92     1.50  PERIOD  ALL       00043872
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582080.00000 4196230.00000 1.5417080e-03    50.66   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196230.00000 2.0673350e-03    48.43   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196230.00000 2.5152900e-03    46.77   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196230.00000 2.7505040e-03    46.42   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196230.00000 3.3662170e-03    46.11   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196230.00000 4.1170460e-02    48.79    48.95     1.50  PERIOD  ALL       00043872
582640.00000 4196230.00000 3.3345260e-02    45.59    49.23     1.50  PERIOD  ALL       00043872
582660.00000 4196230.00000 2.7764980e-02    45.42    45.42     1.50  PERIOD  ALL       00043872
582680.00000 4196230.00000 2.3397290e-02    45.21    45.21     1.50  PERIOD  ALL       00043872
582700.00000 4196230.00000 2.0030520e-02    43.67    45.06     1.50  PERIOD  ALL       00043872
582720.00000 4196230.00000 1.6975940e-02    41.84    45.06     1.50  PERIOD  ALL       00043872
582740.00000 4196230.00000 1.5265030e-02    40.60    41.81     1.50  PERIOD  ALL       00043872
582760.00000 4196230.00000 1.2809450e-02    37.96    45.06     1.50  PERIOD  ALL       00043872
582780.00000 4196230.00000 1.1086910e-02    36.53    44.76     1.50  PERIOD  ALL       00043872
582800.00000 4196230.00000 9.7895410e-03    36.45    36.45     1.50  PERIOD  ALL       00043872
582000.00000 4196250.00000 9.3912960e-04    47.76   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196250.00000 1.0223020e-03    46.32   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196250.00000 1.1141020e-03    47.05   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196250.00000 1.1806000e-03    50.68   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196250.00000 1.3028450e-03    51.00   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196250.00000 1.4665000e-03    50.72   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196250.00000 1.7629590e-03    47.86   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196250.00000 2.1390300e-03    46.64   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196250.00000 2.2543620e-03    46.45   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196250.00000 2.6951500e-03    46.23   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196250.00000 3.2556620e-02    46.44    49.07     1.50  PERIOD  ALL       00043872
582640.00000 4196250.00000 2.7281800e-02    45.35    49.17     1.50  PERIOD  ALL       00043872
582660.00000 4196250.00000 2.3273600e-02    44.76    44.76     1.50  PERIOD  ALL       00043872
582680.00000 4196250.00000 2.0069300e-02    43.38    45.16     1.50  PERIOD  ALL       00043872
582700.00000 4196250.00000 1.7209340e-02    41.78    45.23     1.50  PERIOD  ALL       00043872
582720.00000 4196250.00000 1.5113950e-02    41.30    44.93     1.50  PERIOD  ALL       00043872
582740.00000 4196250.00000 1.3319520e-02    38.29    45.23     1.50  PERIOD  ALL       00043872
582760.00000 4196250.00000 1.1556670e-02    37.54    45.06     1.50  PERIOD  ALL       00043872
582780.00000 4196250.00000 1.0121160e-02    36.30    41.81     1.50  PERIOD  ALL       00043872
582800.00000 4196250.00000 8.9995230e-03    36.17    36.17     1.50  PERIOD  ALL       00043872
582000.00000 4196270.00000 8.2251350e-04    46.30   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196270.00000 8.9320320e-04    45.47   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196270.00000 9.7176280e-04    46.63   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196270.00000 1.0291850e-03    50.69   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196270.00000 1.1395280e-03    50.72   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196270.00000 1.3113940e-03    49.12   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196270.00000 1.5540190e-03    46.71   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196270.00000 1.8945560e-03    46.58   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196270.00000 1.9333470e-03    46.51   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196270.00000 2.2821580e-03    46.27   192.37     1.50  PERIOD  ALL       00043872
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582640.00000 4196270.00000 2.2198670e-02    45.26    45.26     1.50  PERIOD  ALL       00043872
582660.00000 4196270.00000 1.9499190e-02    44.79    44.79     1.50  PERIOD  ALL       00043872
582680.00000 4196270.00000 1.6862650e-02    42.13    45.09     1.50  PERIOD  ALL       00043872
582700.00000 4196270.00000 1.5108650e-02    41.59    41.59     1.50  PERIOD  ALL       00043872
582720.00000 4196270.00000 1.3561770e-02    38.83    45.23     1.50  PERIOD  ALL       00043872
582740.00000 4196270.00000 1.1731690e-02    37.28    45.23     1.50  PERIOD  ALL       00043872
582760.00000 4196270.00000 1.0392190e-02    37.27    37.27     1.50  PERIOD  ALL       00043872
582780.00000 4196270.00000 9.2055140e-03    36.09    36.09     1.50  PERIOD  ALL       00043872
582800.00000 4196270.00000 8.2504060e-03    35.93    35.93     1.50  PERIOD  ALL       00043872
582000.00000 4196290.00000 7.3187750e-04    45.66   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196290.00000 7.9509940e-04    44.80   239.60     1.50  PERIOD  ALL       00043872
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582060.00000 4196290.00000 9.4013960e-04    48.76   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196290.00000 1.4016330e-03    46.56   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196290.00000 1.7433340e-03    46.45   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196290.00000 1.7284070e-03    46.45   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196290.00000 2.0201190e-03    46.15   192.37     1.50  PERIOD  ALL       00043872
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582220.00000 4196290.00000 2.6288850e-03    44.13   192.37     1.50  PERIOD  ALL       00043872
582240.00000 4196290.00000 2.9841550e-03    42.97   192.37     1.50  PERIOD  ALL       00043872
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582260.00000 4196290.00000 3.6501670e-03    43.25    43.25     1.50  PERIOD  ALL       00043872
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582340.00000 4196290.00000 7.6973530e-03    45.43    45.43     1.50  PERIOD  ALL       00043872
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582480.00000 4196290.00000 1.6350460e-02    49.78    49.78     1.50  PERIOD  ALL       00043872
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582540.00000 4196290.00000 2.5066060e-02    50.00    50.57     1.50  PERIOD  ALL       00043872
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582580.00000 4196290.00000 2.4757630e-02    47.38    51.10     1.50  PERIOD  ALL       00043872
582600.00000 4196290.00000 2.2384900e-02    46.25    51.10     1.50  PERIOD  ALL       00043872
582620.00000 4196290.00000 2.0101140e-02    45.31    50.94     1.50  PERIOD  ALL       00043872
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582660.00000 4196290.00000 1.6335660e-02    42.63    45.25     1.50  PERIOD  ALL       00043872
582680.00000 4196290.00000 1.4445410e-02    41.50    45.09     1.50  PERIOD  ALL       00043872
582700.00000 4196290.00000 1.3241700e-02    40.26    44.87     1.50  PERIOD  ALL       00043872
582720.00000 4196290.00000 1.1660530e-02    37.42    45.30     1.50  PERIOD  ALL       00043872
582740.00000 4196290.00000 1.0389020e-02    37.16    44.93     1.50  PERIOD  ALL       00043872
582760.00000 4196290.00000 9.3217050e-03    37.10    37.10     1.50  PERIOD  ALL       00043872
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582800.00000 4196290.00000 7.5549040e-03    35.98    35.98     1.50  PERIOD  ALL       00043872
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582060.00000 4196310.00000 8.6830860e-04    46.15   239.60     1.50  PERIOD  ALL       00043872
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582160.00000 4196310.00000 1.5987920e-03    46.22   192.37     1.50  PERIOD  ALL       00043872
582180.00000 4196310.00000 2.4704540e-03    46.07   192.37     1.50  PERIOD  ALL       00043872
582200.00000 4196310.00000 2.2513650e-03    46.26   192.37     1.50  PERIOD  ALL       00043872
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582240.00000 4196310.00000 2.5744630e-03    42.56   192.37     1.50  PERIOD  ALL       00043872
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582300.00000 4196310.00000 4.4484770e-03    43.87    45.25     1.50  PERIOD  ALL       00043872
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582340.00000 4196310.00000 5.9852280e-03    45.03    45.03     1.50  PERIOD  ALL       00043872
582360.00000 4196310.00000 6.7215450e-03    45.49    46.14     1.50  PERIOD  ALL       00043872
582380.00000 4196310.00000 7.4909280e-03    46.38    46.38     1.50  PERIOD  ALL       00043872
582400.00000 4196310.00000 8.0066120e-03    46.80    50.74     1.50  PERIOD  ALL       00043872
582420.00000 4196310.00000 9.0629480e-03    48.59    50.83     1.50  PERIOD  ALL       00043872
582440.00000 4196310.00000 9.5403160e-03    50.63    50.63     1.50  PERIOD  ALL       00043872
582460.00000 4196310.00000 1.0583600e-02    50.29    50.29     1.50  PERIOD  ALL       00043872
582480.00000 4196310.00000 1.2145370e-02    49.71    49.71     1.50  PERIOD  ALL       00043872
582500.00000 4196310.00000 1.4013610e-02    48.80    48.80     1.50  PERIOD  ALL       00043872
582520.00000 4196310.00000 1.5819720e-02    48.04    48.04     1.50  PERIOD  ALL       00043872
582540.00000 4196310.00000 1.7369750e-02    47.49    51.09     1.50  PERIOD  ALL       00043872
582560.00000 4196310.00000 1.8240920e-02    47.47    51.10     1.50  PERIOD  ALL       00043872
582580.00000 4196310.00000 1.7898000e-02    45.49    51.10     1.50  PERIOD  ALL       00043872
582600.00000 4196310.00000 1.7104860e-02    45.07    51.10     1.50  PERIOD  ALL       00043872
582620.00000 4196310.00000 1.6052810e-02    45.03    50.84     1.50  PERIOD  ALL       00043872
582640.00000 4196310.00000 1.4958620e-02    44.46    44.46     1.50  PERIOD  ALL       00043872
582660.00000 4196310.00000 1.3438490e-02    41.38    45.32     1.50  PERIOD  ALL       00043872
582680.00000 4196310.00000 1.2435160e-02    40.95    40.95     1.50  PERIOD  ALL       00043872
582700.00000 4196310.00000 1.1295610e-02    37.17    50.94     1.50  PERIOD  ALL       00043872
582720.00000 4196310.00000 1.0163710e-02    37.09    45.09     1.50  PERIOD  ALL       00043872
582740.00000 4196310.00000 9.1738160e-03    36.61    36.61     1.50  PERIOD  ALL       00043872
582760.00000 4196310.00000 8.3452230e-03    36.85    36.85     1.50  PERIOD  ALL       00043872
582780.00000 4196310.00000 7.5623290e-03    35.91    35.91     1.50  PERIOD  ALL       00043872
582800.00000 4196310.00000 6.8986450e-03    35.87    35.87     1.50  PERIOD  ALL       00043872
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582060.00000 4196330.00000 8.0703150e-04    44.85   239.60     1.50  PERIOD  ALL       00043872
582080.00000 4196330.00000 9.0256250e-04    45.71   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196330.00000 1.2309990e-03    45.92   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196330.00000 1.6174040e-03    45.76   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196330.00000 1.5179370e-03    45.89   192.37     1.50  PERIOD  ALL       00043872
582180.00000 4196330.00000 2.2647360e-03    45.93   192.37     1.50  PERIOD  ALL       00043872
582200.00000 4196330.00000 2.0539330e-03    46.20    46.20     1.50  PERIOD  ALL       00043872
582220.00000 4196330.00000 2.0977070e-03    46.93    46.93     1.50  PERIOD  ALL       00043872
582240.00000 4196330.00000 2.2852060e-03    42.85    47.19     1.50  PERIOD  ALL       00043872
582260.00000 4196330.00000 2.6014160e-03    41.98    47.19     1.50  PERIOD  ALL       00043872
582280.00000 4196330.00000 3.0623590e-03    42.15    42.15     1.50  PERIOD  ALL       00043872
582300.00000 4196330.00000 3.6266540e-03    42.63    42.63     1.50  PERIOD  ALL       00043872
582320.00000 4196330.00000 4.2429220e-03    43.06    43.06     1.50  PERIOD  ALL       00043872
582340.00000 4196330.00000 4.8722290e-03    43.18    43.18     1.50  PERIOD  ALL       00043872
582360.00000 4196330.00000 5.5306650e-03    43.68    46.47     1.50  PERIOD  ALL       00043872
582380.00000 4196330.00000 6.2744160e-03    44.83    51.07     1.50  PERIOD  ALL       00043872
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582440.00000 4196330.00000 7.7695950e-03    51.04    51.04     1.50  PERIOD  ALL       00043872
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582480.00000 4196330.00000 9.4620480e-03    50.14    50.14     1.50  PERIOD  ALL       00043872
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582600.00000 4196330.00000 1.3409890e-02    43.28    51.10     1.50  PERIOD  ALL       00043872
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582640.00000 4196330.00000 1.2291690e-02    41.68    51.10     1.50  PERIOD  ALL       00043872
582660.00000 4196330.00000 1.1470230e-02    41.21    45.28     1.50  PERIOD  ALL       00043872
582680.00000 4196330.00000 1.0845020e-02    37.94    51.10     1.50  PERIOD  ALL       00043872
582700.00000 4196330.00000 9.5930100e-03    35.01    51.10     1.50  PERIOD  ALL       00043872
582720.00000 4196330.00000 8.8000060e-03    35.21    45.32     1.50  PERIOD  ALL       00043872
582740.00000 4196330.00000 8.0840510e-03    35.38    35.38     1.50  PERIOD  ALL       00043872
582760.00000 4196330.00000 7.4635200e-03    36.35    36.35     1.50  PERIOD  ALL       00043872
582780.00000 4196330.00000 6.8383690e-03    35.74    35.74     1.50  PERIOD  ALL       00043872
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582000.00000 4196350.00000 5.6440850e-04    44.87   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196350.00000 6.1783030e-04    44.87   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196350.00000 6.8171120e-04    43.74   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196350.00000 7.5843220e-04    44.30   239.60     1.50  PERIOD  ALL       00043872
582080.00000 4196350.00000 8.5251280e-04    45.35   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196350.00000 9.7451840e-04    46.21   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196350.00000 1.1792480e-03    45.80   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196350.00000 1.3584590e-03    45.39   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196350.00000 1.4723450e-03    45.51   192.37     1.50  PERIOD  ALL       00043872
582180.00000 4196350.00000 2.1150160e-03    45.61    45.61     1.50  PERIOD  ALL       00043872
582200.00000 4196350.00000 1.9035820e-03    45.98    45.98     1.50  PERIOD  ALL       00043872
582220.00000 4196350.00000 1.9253870e-03    46.33    46.33     1.50  PERIOD  ALL       00043872
582240.00000 4196350.00000 2.0737450e-03    44.33    47.19     1.50  PERIOD  ALL       00043872
582260.00000 4196350.00000 2.3139380e-03    41.75    47.19     1.50  PERIOD  ALL       00043872
582280.00000 4196350.00000 2.6726810e-03    42.27    47.04     1.50  PERIOD  ALL       00043872
582300.00000 4196350.00000 3.1119120e-03    42.92    42.92     1.50  PERIOD  ALL       00043872
582320.00000 4196350.00000 3.6031120e-03    43.23    43.23     1.50  PERIOD  ALL       00043872
582340.00000 4196350.00000 4.1305330e-03    43.26    43.26     1.50  PERIOD  ALL       00043872
582360.00000 4196350.00000 4.7095000e-03    43.23    50.74     1.50  PERIOD  ALL       00043872
582380.00000 4196350.00000 5.4366210e-03    43.54    51.07     1.50  PERIOD  ALL       00043872
582400.00000 4196350.00000 5.7395420e-03    45.34    51.07     1.50  PERIOD  ALL       00043872
582420.00000 4196350.00000 6.6232750e-03    47.25    51.07     1.50  PERIOD  ALL       00043872
582440.00000 4196350.00000 6.7231320e-03    49.23    50.98     1.50  PERIOD  ALL       00043872
582460.00000 4196350.00000 7.0621020e-03    50.33    50.33     1.50  PERIOD  ALL       00043872
582480.00000 4196350.00000 7.6865170e-03    50.36    50.36     1.50  PERIOD  ALL       00043872
582500.00000 4196350.00000 8.5697840e-03    49.30    49.30     1.50  PERIOD  ALL       00043872
582520.00000 4196350.00000 9.3921200e-03    46.07    50.48     1.50  PERIOD  ALL       00043872
582540.00000 4196350.00000 1.0094100e-02    45.22    49.69     1.50  PERIOD  ALL       00043872
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582560.00000 4196350.00000 1.0584780e-02    43.92    51.10     1.50  PERIOD  ALL       00043872
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582600.00000 4196350.00000 1.0912960e-02    43.05    51.10     1.50  PERIOD  ALL       00043872
582620.00000 4196350.00000 1.0840750e-02    41.83    51.10     1.50  PERIOD  ALL       00043872
582640.00000 4196350.00000 1.0258060e-02    41.07    51.03     1.50  PERIOD  ALL       00043872
582660.00000 4196350.00000 1.0119990e-02    39.76    45.28     1.50  PERIOD  ALL       00043872
582680.00000 4196350.00000 9.1215330e-03    35.93    51.10     1.50  PERIOD  ALL       00043872
582700.00000 4196350.00000 8.3790830e-03    35.13    51.10     1.50  PERIOD  ALL       00043872
582720.00000 4196350.00000 7.7378410e-03    34.68    45.29     1.50  PERIOD  ALL       00043872
582740.00000 4196350.00000 7.1837990e-03    34.98    34.98     1.50  PERIOD  ALL       00043872
582760.00000 4196350.00000 6.6905890e-03    36.01    36.01     1.50  PERIOD  ALL       00043872
582780.00000 4196350.00000 6.1849280e-03    35.56    35.56     1.50  PERIOD  ALL       00043872
582800.00000 4196350.00000 5.7294600e-03    35.46    35.46     1.50  PERIOD  ALL       00043872
582000.00000 4196370.00000 5.2838670e-04    44.53   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196370.00000 5.8136450e-04    43.97   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196370.00000 6.4413260e-04    43.58   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196370.00000 7.2051650e-04    44.22   239.60     1.50  PERIOD  ALL       00043872
582080.00000 4196370.00000 8.1001450e-04    45.95   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196370.00000 9.3903810e-04    45.87   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196370.00000 1.1537180e-03    45.20   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196370.00000 1.3342850e-03    44.96   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196370.00000 1.4543100e-03    45.12   192.37     1.50  PERIOD  ALL       00043872
582180.00000 4196370.00000 2.0065930e-03    45.12    45.12     1.50  PERIOD  ALL       00043872
582200.00000 4196370.00000 1.7956660e-03    45.27    45.27     1.50  PERIOD  ALL       00043872
582220.00000 4196370.00000 1.8035640e-03    45.34    46.95     1.50  PERIOD  ALL       00043872
582240.00000 4196370.00000 1.9160700e-03    46.03    46.95     1.50  PERIOD  ALL       00043872
582260.00000 4196370.00000 2.1217240e-03    41.50    47.19     1.50  PERIOD  ALL       00043872
582280.00000 4196370.00000 2.4179000e-03    42.43    47.06     1.50  PERIOD  ALL       00043872
582300.00000 4196370.00000 2.7758940e-03    43.10    43.10     1.50  PERIOD  ALL       00043872
582320.00000 4196370.00000 3.1843460e-03    43.50    43.50     1.50  PERIOD  ALL       00043872
582340.00000 4196370.00000 3.6369820e-03    43.66    43.66     1.50  PERIOD  ALL       00043872
582360.00000 4196370.00000 4.1644890e-03    43.55    43.55     1.50  PERIOD  ALL       00043872
582380.00000 4196370.00000 4.9013330e-03    43.62    51.07     1.50  PERIOD  ALL       00043872
582400.00000 4196370.00000 5.0640460e-03    44.24    51.07     1.50  PERIOD  ALL       00043872
582420.00000 4196370.00000 5.7570050e-03    45.24    51.07     1.50  PERIOD  ALL       00043872
582440.00000 4196370.00000 5.8537950e-03    46.21    51.07     1.50  PERIOD  ALL       00043872
582460.00000 4196370.00000 6.1559330e-03    47.76    50.98     1.50  PERIOD  ALL       00043872
582480.00000 4196370.00000 6.5308990e-03    49.56    49.56     1.50  PERIOD  ALL       00043872
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582520.00000 4196370.00000 7.6969960e-03    44.85    50.72     1.50  PERIOD  ALL       00043872
582540.00000 4196370.00000 8.2181520e-03    44.13    50.05     1.50  PERIOD  ALL       00043872
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582580.00000 4196370.00000 8.9189960e-03    42.87    51.03     1.50  PERIOD  ALL       00043872
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582640.00000 4196370.00000 8.7681850e-03    40.63    40.63     1.50  PERIOD  ALL       00043872
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582800.00000 4196370.00000 5.2233140e-03    35.41    35.41     1.50  PERIOD  ALL       00043872
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582120.00000 4196390.00000 1.1380830e-03    44.78   198.32     1.50  PERIOD  ALL       00043872
582140.00000 4196390.00000 1.3296090e-03    44.61   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196390.00000 1.4244030e-03    44.69    44.69     1.50  PERIOD  ALL       00043872
582180.00000 4196390.00000 1.9280350e-03    44.78    44.78     1.50  PERIOD  ALL       00043872
582200.00000 4196390.00000 1.7291230e-03    44.84    44.84     1.50  PERIOD  ALL       00043872
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582240.00000 4196390.00000 1.8148610e-03    46.62    47.06     1.50  PERIOD  ALL       00043872
582260.00000 4196390.00000 2.0233220e-03    41.26    47.06     1.50  PERIOD  ALL       00043872
582280.00000 4196390.00000 2.2818160e-03    42.15    47.06     1.50  PERIOD  ALL       00043872
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582380.00000 4196390.00000 4.1281530e-03    43.27    43.27     1.50  PERIOD  ALL       00043872
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582480.00000 4196390.00000 5.6207700e-03    49.69    49.69     1.50  PERIOD  ALL       00043872
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582600.00000 4196390.00000 7.7911910e-03    41.55    41.55     1.50  PERIOD  ALL       00043872
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582640.00000 4196390.00000 7.5712450e-03    39.33    40.26     1.50  PERIOD  ALL       00043872
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582720.00000 4196390.00000 6.1037090e-03    34.76    34.76     1.50  PERIOD  ALL       00043872
582740.00000 4196390.00000 5.7463180e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582760.00000 4196390.00000 5.4030940e-03    35.14    35.14     1.50  PERIOD  ALL       00043872
582780.00000 4196390.00000 5.0809060e-03    35.59    35.59     1.50  PERIOD  ALL       00043872
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582080.00000 4196410.00000 7.6461120e-04    42.92   239.60     1.50  PERIOD  ALL       00043872
582100.00000 4196410.00000 9.1170760e-04    43.51   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4196410.00000 1.3554180e-03    44.07   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196410.00000 1.3950370e-03    44.29    44.29     1.50  PERIOD  ALL       00043872
582180.00000 4196410.00000 1.8954040e-03    44.38    44.38     1.50  PERIOD  ALL       00043872
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582240.00000 4196410.00000 1.8415820e-03    45.04    47.06     1.50  PERIOD  ALL       00043872
582260.00000 4196410.00000 2.0722370e-03    41.42    47.06     1.50  PERIOD  ALL       00043872
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582480.00000 4196410.00000 5.1706670e-03    46.16    49.84     1.50  PERIOD  ALL       00043872
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582580.00000 4196410.00000 6.7279250e-03    41.10    41.10     1.50  PERIOD  ALL       00043872
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582620.00000 4196410.00000 6.6139980e-03    39.16    39.16     1.50  PERIOD  ALL       00043872
582640.00000 4196410.00000 7.2020830e-03    38.02    39.82     1.50  PERIOD  ALL       00043872
582660.00000 4196410.00000 6.4787810e-03    35.71    41.94     1.50  PERIOD  ALL       00043872
582680.00000 4196410.00000 6.0834780e-03    35.17    40.44     1.50  PERIOD  ALL       00043872
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582780.00000 4196410.00000 4.6165220e-03    35.91    35.91     1.50  PERIOD  ALL       00043872
582800.00000 4196410.00000 4.3455990e-03    35.32    35.32     1.50  PERIOD  ALL       00043872
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582100.00000 4196430.00000 8.8978010e-04    42.68   198.92     1.50  PERIOD  ALL       00043872
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582160.00000 4196430.00000 1.4399660e-03    43.91    43.91     1.50  PERIOD  ALL       00043872
582180.00000 4196430.00000 1.9744920e-03    44.17    44.17     1.50  PERIOD  ALL       00043872
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582480.00000 4196430.00000 4.7590900e-03    42.82    49.84     1.50  PERIOD  ALL       00043872
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582580.00000 4196430.00000 6.0336110e-03    39.37    40.96     1.50  PERIOD  ALL       00043872
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582040.00000 4196450.00000 5.1039500e-04    44.33   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196450.00000 5.8278830e-04    44.26   239.60     1.50  PERIOD  ALL       00043872
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582120.00000 4196450.00000 1.1220240e-03    42.72   192.37     1.50  PERIOD  ALL       00043872
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582180.00000 4196450.00000 1.8308310e-03    43.11    43.11     1.50  PERIOD  ALL       00043872
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582240.00000 4196450.00000 1.9817200e-03    41.29    46.81     1.50  PERIOD  ALL       00043872
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582540.00000 4196450.00000 4.7491130e-03    40.32    49.84     1.50  PERIOD  ALL       00043872
582560.00000 4196450.00000 4.9209390e-03    39.40    49.84     1.50  PERIOD  ALL       00043872
582580.00000 4196450.00000 5.5285720e-03    38.41    39.05     1.50  PERIOD  ALL       00043872
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582640.00000 4196450.00000 5.7740910e-03    36.41    36.41     1.50  PERIOD  ALL       00043872
582660.00000 4196450.00000 5.1584840e-03    35.77    35.77     1.50  PERIOD  ALL       00043872
582680.00000 4196450.00000 4.8420950e-03    35.79    35.79     1.50  PERIOD  ALL       00043872
582700.00000 4196450.00000 4.5910320e-03    35.15    35.15     1.50  PERIOD  ALL       00043872
582720.00000 4196450.00000 4.3715540e-03    34.62    34.62     1.50  PERIOD  ALL       00043872
582740.00000 4196450.00000 4.1764230e-03    34.76    34.76     1.50  PERIOD  ALL       00043872
582760.00000 4196450.00000 3.9813470e-03    34.59    34.59     1.50  PERIOD  ALL       00043872
582780.00000 4196450.00000 3.8008620e-03    35.06    35.06     1.50  PERIOD  ALL       00043872
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582080.00000 4196470.00000 6.3330380e-04    42.77   239.60     1.50  PERIOD  ALL       00043872
582100.00000 4196470.00000 7.7429240e-04    42.61   192.37     1.50  PERIOD  ALL       00043872
582120.00000 4196470.00000 1.0313800e-03    42.62    42.62     1.50  PERIOD  ALL       00043872
582140.00000 4196470.00000 1.0749160e-03    42.96    42.96     1.50  PERIOD  ALL       00043872
582160.00000 4196470.00000 1.2253140e-03    43.06    43.06     1.50  PERIOD  ALL       00043872
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582400.00000 4195650.00000 6.8497110e-04    43.45   198.42     1.50  PERIOD  ALL       00043872
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582600.00000 4195750.00000 1.2726390e-03    40.72    40.72     1.50  PERIOD  ALL       00043872
582700.00000 4195750.00000 1.3815190e-03    43.18    43.18     1.50  PERIOD  ALL       00043872
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582800.00000 4195750.00000 1.5887230e-03    42.26    45.24     1.50  PERIOD  ALL       00043872
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583000.00000 4195750.00000 1.8241100e-03    38.62    38.62     1.50  PERIOD  ALL       00043872
583050.00000 4195750.00000 1.8021520e-03    38.14    38.14     1.50  PERIOD  ALL       00043872
583100.00000 4195750.00000 1.7543260e-03    37.65    37.65     1.50  PERIOD  ALL       00043872
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582050.00000 4195800.00000 2.1549430e-03    53.91   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195800.00000 2.1156910e-03    53.97   198.92     1.50  PERIOD  ALL       00043872
582150.00000 4195800.00000 2.1289270e-03    51.80   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4195800.00000 2.3153250e-03    49.88   198.92     1.50  PERIOD  ALL       00043872
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582250.00000 4195800.00000 2.6515160e-03    49.28   198.92     1.50  PERIOD  ALL       00043872
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582200.00000 4196500.00000 1.3539600e-03    43.01    43.01     1.50  PERIOD  ALL       00043872
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582500.00000 4196500.00000 2.8548140e-03    39.43    41.67     1.50  PERIOD  ALL       00043872
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583100.00000 4196500.00000 1.5299410e-03    34.66    89.13     1.50  PERIOD  ALL       00043872
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581950.00000 4196550.00000 2.6221890e-04    48.37   239.60     1.50  PERIOD  ALL       00043872
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582350.00000 4196650.00000 7.7417770e-04    38.65    38.65     1.50  PERIOD  ALL       00043872
582400.00000 4196650.00000 9.0678980e-04    38.68    38.68     1.50  PERIOD  ALL       00043872
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582850.00000 4196700.00000 1.2633000e-03    33.88    33.88     1.50  PERIOD  ALL       00043872
582900.00000 4196700.00000 1.2021610e-03    34.26    34.26     1.50  PERIOD  ALL       00043872
582950.00000 4196700.00000 1.1374330e-03    34.38    34.38     1.50  PERIOD  ALL       00043872
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581700.00000 4196750.00000 1.0866370e-04    44.60   239.60     1.50  PERIOD  ALL       00043872
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582200.00000 4196750.00000 3.6626020e-04    38.02    45.07     1.50  PERIOD  ALL       00043872
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582300.00000 4196750.00000 4.7076360e-04    38.62    39.86     1.50  PERIOD  ALL       00043872
582350.00000 4196750.00000 5.3628010e-04    36.94    38.91     1.50  PERIOD  ALL       00043872
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582450.00000 4196750.00000 7.0741450e-04    36.14    36.14     1.50  PERIOD  ALL       00043872
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582950.00000 4196750.00000 9.8882810e-04    34.28    34.28     1.50  PERIOD  ALL       00043872
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583500.00000 4195050.00000 1.5102510e-04    40.81   123.60     1.50  PERIOD  ALL       00043872
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582700.00000 4195150.00000 1.2008640e-04    42.32    42.32     1.50  PERIOD  ALL       00043872
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583600.00000 4196450.00000 6.1998070e-04    62.01    89.13     1.50  PERIOD  ALL       00043872
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583600.00000 4196550.00000 5.4678970e-04    65.96    65.96     1.50  PERIOD  ALL       00043872
581200.00000 4196650.00000 5.3277960e-05    64.20   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4196650.00000 5.9217030e-05    59.68   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4196650.00000 6.7009140e-05    55.02   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4196650.00000 7.8397580e-05    50.39   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4196650.00000 9.2093820e-05    47.52   239.60     1.50  PERIOD  ALL       00043872
583200.00000 4196650.00000 9.4526160e-04    32.91    89.13     1.50  PERIOD  ALL       00043872
583300.00000 4196650.00000 8.1544460e-04    36.29    89.13     1.50  PERIOD  ALL       00043872
583400.00000 4196650.00000 6.9961840e-04    45.88    89.13     1.50  PERIOD  ALL       00043872
583500.00000 4196650.00000 5.8606340e-04    57.02    66.04     1.50  PERIOD  ALL       00043872
583600.00000 4196650.00000 4.9522690e-04    66.08    66.08     1.50  PERIOD  ALL       00043872
581200.00000 4196750.00000 4.3686960e-05    71.00   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4196750.00000 5.2508370e-05    54.24   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4196750.00000 6.0130070e-05    51.84   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4196750.00000 6.9827790e-05    49.73   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4196750.00000 8.4867830e-05    47.94   239.60     1.50  PERIOD  ALL       00043872
583200.00000 4196750.00000 7.6914970e-04    33.23    60.88     1.50  PERIOD  ALL       00043872
583300.00000 4196750.00000 6.9157760e-04    34.28    89.13     1.50  PERIOD  ALL       00043872
583400.00000 4196750.00000 6.0727960e-04    52.61    60.88     1.50  PERIOD  ALL       00043872
583500.00000 4196750.00000 5.3272020e-04    59.05    59.05     1.50  PERIOD  ALL       00043872
583600.00000 4196750.00000 4.5753900e-04    68.72    69.55     1.50  PERIOD  ALL       00043872
581200.00000 4196850.00000 3.6429310e-05    79.04   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4196850.00000 4.7167050e-05    55.09   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4196850.00000 5.6217160e-05    47.41   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4196850.00000 6.7151020e-05    47.45   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4196850.00000 8.4191060e-05    47.50   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4196850.00000 1.0899140e-04    44.93   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4196850.00000 1.4027830e-04    42.69   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4196850.00000 1.7636630e-04    44.62   239.60     1.50  PERIOD  ALL       00043872
582000.00000 4196850.00000 2.1137440e-04    42.31    45.21     1.50  PERIOD  ALL       00043872
582100.00000 4196850.00000 2.4165020e-04    37.95    37.95     1.50  PERIOD  ALL       00043872
582200.00000 4196850.00000 2.7725700e-04    33.42    45.07     1.50  PERIOD  ALL       00043872
582300.00000 4196850.00000 3.5341050e-04    35.98    37.45     1.50  PERIOD  ALL       00043872
582400.00000 4196850.00000 4.4860630e-04    36.07    36.07     1.50  PERIOD  ALL       00043872
582500.00000 4196850.00000 5.6971680e-04    32.59    32.59     1.50  PERIOD  ALL       00043872
582600.00000 4196850.00000 6.8939490e-04    32.63    32.63     1.50  PERIOD  ALL       00043872
582700.00000 4196850.00000 7.8504190e-04    33.76    33.76     1.50  PERIOD  ALL       00043872
582800.00000 4196850.00000 8.1992430e-04    33.01    33.01     1.50  PERIOD  ALL       00043872
582900.00000 4196850.00000 7.9306860e-04    33.39    33.39     1.50  PERIOD  ALL       00043872
583000.00000 4196850.00000 7.3409280e-04    33.90    33.90     1.50  PERIOD  ALL       00043872
583100.00000 4196850.00000 6.7206660e-04    33.48    33.48     1.50  PERIOD  ALL       00043872
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583200.00000 4196850.00000 6.2007320e-04    33.15    60.83     1.50  PERIOD  ALL       00043872
583300.00000 4196850.00000 5.7350640e-04    32.22    72.83     1.50  PERIOD  ALL       00043872
583400.00000 4196850.00000 5.1923950e-04    54.44    57.69     1.50  PERIOD  ALL       00043872
583500.00000 4196850.00000 4.7009820e-04    60.13    60.13     1.50  PERIOD  ALL       00043872
583600.00000 4196850.00000 4.2339230e-04    66.11    66.11     1.50  PERIOD  ALL       00043872
581200.00000 4196950.00000 3.8108250e-05    61.81   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4196950.00000 4.6560510e-05    48.16   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4196950.00000 5.5081130e-05    47.85   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4196950.00000 6.7893340e-05    44.29   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4196950.00000 8.6110720e-05    44.39   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4196950.00000 1.0908890e-04    42.68   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4196950.00000 1.3453520e-04    41.60   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4196950.00000 1.5901890e-04    42.05   239.60     1.50  PERIOD  ALL       00043872
582000.00000 4196950.00000 1.7860710e-04    39.68    39.68     1.50  PERIOD  ALL       00043872
582100.00000 4196950.00000 2.0079240e-04    42.39    44.47     1.50  PERIOD  ALL       00043872
582200.00000 4196950.00000 2.2386090e-04    32.77    44.70     1.50  PERIOD  ALL       00043872
582300.00000 4196950.00000 2.7661720e-04    32.97    32.97     1.50  PERIOD  ALL       00043872
582400.00000 4196950.00000 3.4004550e-04    32.51    32.51     1.50  PERIOD  ALL       00043872
582500.00000 4196950.00000 4.2436160e-04    31.24    31.24     1.50  PERIOD  ALL       00043872
582600.00000 4196950.00000 5.0682030e-04    32.00    32.00     1.50  PERIOD  ALL       00043872
582700.00000 4196950.00000 5.7964170e-04    32.51    32.51     1.50  PERIOD  ALL       00043872
582800.00000 4196950.00000 6.2265610e-04    32.29    32.29     1.50  PERIOD  ALL       00043872
582900.00000 4196950.00000 6.2154800e-04    32.50    32.50     1.50  PERIOD  ALL       00043872
583000.00000 4196950.00000 5.8971540e-04    33.28    33.28     1.50  PERIOD  ALL       00043872
583100.00000 4196950.00000 5.4573550e-04    33.29    33.29     1.50  PERIOD  ALL       00043872
583200.00000 4196950.00000 5.0597240e-04    33.03    57.85     1.50  PERIOD  ALL       00043872
583300.00000 4196950.00000 4.7424670e-04    33.36    69.73     1.50  PERIOD  ALL       00043872
583400.00000 4196950.00000 4.4747800e-04    45.83    66.15     1.50  PERIOD  ALL       00043872
583500.00000 4196950.00000 4.0593690e-04    58.10    58.10     1.50  PERIOD  ALL       00043872
583600.00000 4196950.00000 3.7682980e-04    62.26    62.26     1.50  PERIOD  ALL       00043872
581200.00000 4197050.00000 3.9607750e-05    48.12   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4197050.00000 4.6473580e-05    44.63   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4197050.00000 5.6411000e-05    45.96   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4197050.00000 7.0286670e-05    45.23   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4197050.00000 8.7390280e-05    40.85   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4197050.00000 1.0634870e-04    38.71   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4197050.00000 1.2431500e-04    38.31   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4197050.00000 1.3855320e-04    38.65   239.60     1.50  PERIOD  ALL       00043872
582000.00000 4197050.00000 1.5331150e-04    43.71    43.71     1.50  PERIOD  ALL       00043872
582100.00000 4197050.00000 1.6766590e-04    44.62    44.62     1.50  PERIOD  ALL       00043872
582200.00000 4197050.00000 1.8907080e-04    35.08    44.67     1.50  PERIOD  ALL       00043872
582300.00000 4197050.00000 2.2558180e-04    32.85    32.85     1.50  PERIOD  ALL       00043872
582400.00000 4197050.00000 2.6906840e-04    30.93    30.93     1.50  PERIOD  ALL       00043872
582500.00000 4197050.00000 3.2892110e-04    30.66    30.66     1.50  PERIOD  ALL       00043872
582600.00000 4197050.00000 3.8670300e-04    31.39    31.39     1.50  PERIOD  ALL       00043872
582700.00000 4197050.00000 4.4195560e-04    32.09    32.09     1.50  PERIOD  ALL       00043872
582800.00000 4197050.00000 4.8425150e-04    32.42    32.42     1.50  PERIOD  ALL       00043872
582900.00000 4197050.00000 4.9679530e-04    32.21    32.21     1.50  PERIOD  ALL       00043872
583000.00000 4197050.00000 4.8341000e-04    32.97    32.97     1.50  PERIOD  ALL       00043872
583100.00000 4197050.00000 4.5233970e-04    29.75    33.40     1.50  PERIOD  ALL       00043872
583200.00000 4197050.00000 4.2224360e-04    32.52    32.52     1.50  PERIOD  ALL       00043872
583300.00000 4197050.00000 3.9704490e-04    35.65    59.77     1.50  PERIOD  ALL       00043872
583400.00000 4197050.00000 3.7660160e-04    48.83    48.87     1.50  PERIOD  ALL       00043872
583500.00000 4197050.00000 3.5700950e-04    50.56    54.37     1.50  PERIOD  ALL       00043872
583600.00000 4197050.00000 3.3681420e-04    53.14    60.70     1.50  PERIOD  ALL       00043872
581200.00000 4197150.00000 4.0023760e-05    44.66   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4197150.00000 4.7857270e-05    42.71   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4197150.00000 5.8549680e-05    41.36   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4197150.00000 7.2314190e-05    42.35   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4197150.00000 8.7925010e-05    42.67   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4197150.00000 1.0207150e-04    39.62   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4197150.00000 1.1175790e-04    36.51   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4197150.00000 1.2146880e-04    40.41    44.57     1.50  PERIOD  ALL       00043872
582000.00000 4197150.00000 1.3111420e-04    46.05    46.05     1.50  PERIOD  ALL       00043872
582100.00000 4197150.00000 1.4278350e-04    45.71    45.71     1.50  PERIOD  ALL       00043872
582200.00000 4197150.00000 1.6191610e-04    35.93    45.81     1.50  PERIOD  ALL       00043872
582300.00000 4197150.00000 1.8831220e-04    33.09    33.09     1.50  PERIOD  ALL       00043872
582400.00000 4197150.00000 2.2048630e-04    31.57    31.92     1.50  PERIOD  ALL       00043872
582500.00000 4197150.00000 2.6317470e-04    30.66    30.66     1.50  PERIOD  ALL       00043872
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582600.00000 4197150.00000 3.0426240e-04    31.07    31.07     1.50  PERIOD  ALL       00043872
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582800.00000 4197150.00000 3.8370470e-04    32.24    32.24     1.50  PERIOD  ALL       00043872
582900.00000 4197150.00000 4.0295320e-04    32.10    32.10     1.50  PERIOD  ALL       00043872
583000.00000 4197150.00000 4.0170790e-04    32.72    32.72     1.50  PERIOD  ALL       00043872
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583200.00000 4197150.00000 3.5986860e-04    30.57    48.18     1.50  PERIOD  ALL       00043872
583300.00000 4197150.00000 3.3866580e-04    35.51    48.18     1.50  PERIOD  ALL       00043872
583400.00000 4197150.00000 3.2111690e-04    37.47    54.73     1.50  PERIOD  ALL       00043872
583500.00000 4197150.00000 3.0798330e-04    45.18    51.20     1.50  PERIOD  ALL       00043872
583600.00000 4197150.00000 2.9462730e-04    50.27    50.27     1.50  PERIOD  ALL       00043872
581200.00000 4197250.00000 4.1431890e-05    42.65   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4197250.00000 5.0043210e-05    42.52   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4197250.00000 6.0686000e-05    40.10   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4197250.00000 7.2876380e-05    38.92   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4197250.00000 8.5051670e-05    38.89   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4197250.00000 9.4365840e-05    39.00   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4197250.00000 9.9103400e-05    35.75   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4197250.00000 1.0639070e-04    42.04    42.04     1.50  PERIOD  ALL       00043872
582000.00000 4197250.00000 1.1289340e-04    44.10    44.10     1.50  PERIOD  ALL       00043872
582100.00000 4197250.00000 1.2401490e-04    44.32    44.32     1.50  PERIOD  ALL       00043872
582200.00000 4197250.00000 1.4297650e-04    43.49    43.49     1.50  PERIOD  ALL       00043872
582300.00000 4197250.00000 1.6338150e-04    41.34    41.34     1.50  PERIOD  ALL       00043872
582400.00000 4197250.00000 1.8566250e-04    34.09    34.95     1.50  PERIOD  ALL       00043872
582500.00000 4197250.00000 2.1576410e-04    30.27    30.27     1.50  PERIOD  ALL       00043872
582600.00000 4197250.00000 2.4553940e-04    30.78    30.78     1.50  PERIOD  ALL       00043872
582700.00000 4197250.00000 2.7726920e-04    31.52    31.52     1.50  PERIOD  ALL       00043872
582800.00000 4197250.00000 3.0913950e-04    31.22    31.22     1.50  PERIOD  ALL       00043872
582900.00000 4197250.00000 3.3063740e-04    31.35    31.35     1.50  PERIOD  ALL       00043872
583000.00000 4197250.00000 3.3695330e-04    32.05    32.05     1.50  PERIOD  ALL       00043872
583100.00000 4197250.00000 3.2964900e-04    32.26    48.18     1.50  PERIOD  ALL       00043872
583200.00000 4197250.00000 3.1569820e-04    40.71    48.18     1.50  PERIOD  ALL       00043872
583300.00000 4197250.00000 2.9627140e-04    42.28    48.18     1.50  PERIOD  ALL       00043872
583400.00000 4197250.00000 2.7862600e-04    37.79    51.40     1.50  PERIOD  ALL       00043872
583500.00000 4197250.00000 2.6662280e-04    46.06    51.40     1.50  PERIOD  ALL       00043872
583600.00000 4197250.00000 2.5704070e-04    38.82    57.16     1.50  PERIOD  ALL       00043872
582318.03000 4196156.28000 6.6572340e-02    49.31    49.43     1.50  PERIOD  ALL       00043872
582434.62000 4196184.27000 8.5914750e-02    50.47    50.47     1.50  PERIOD  ALL       00043872
582452.96000 4196111.52000 1.5101160e-01    49.74    49.74     1.50  PERIOD  ALL       00043872
582383.80000 4196094.54000 1.5841120e-01    51.13    51.13     1.50  PERIOD  ALL       00043872
582388.38000 4196074.72000 1.0567560e-01    51.07    51.07     1.50  PERIOD  ALL       00043872
582282.45000 4196052.16000 5.5750770e-02    50.01   192.37     1.50  PERIOD  ALL       00043872
582279.51000 4196069.38000 8.7894370e-02    48.26   192.37     1.50  PERIOD  ALL       00043872
582214.32000 4196055.42000 3.1955090e-02    45.50   198.92     1.50  PERIOD  ALL       00043872
582204.80000 4196106.51000 2.1572470e-02    45.14   198.92     1.50  PERIOD  ALL       00043872
582323.00000 4196133.54000 9.3461180e-02    50.35    50.35     1.50  PERIOD  ALL       00043872
582437.09000 4196234.18000 3.2087450e-02    49.98    49.98     1.50  PERIOD  ALL       00043872
582545.62000 4196260.83000 6.1402920e-02    51.01    51.01     1.50  PERIOD  ALL       00043872
582562.86000 4196212.92000 1.0278770e-01    51.25    51.25     1.50  PERIOD  ALL       00043872
582447.46000 4196187.89000 7.4990970e-02    50.47    50.47     1.50  PERIOD  ALL       00043872
582465.02000 4196119.46000 1.4335460e-01    49.88    49.88     1.50  PERIOD  ALL       00043872
582582.69000 4196151.50000 2.7005470e-01    51.21    51.21     1.50  PERIOD  ALL       00043872
582591.67000 4196124.78000 2.5990900e-01    50.01    50.69     1.50  PERIOD  ALL       00043872
582471.53000 4196093.98000 1.3018000e-01    49.18    49.18     1.50  PERIOD  ALL       00043872
582453.44000 4196160.63000 1.0196540e-01    50.42    50.42     1.50  PERIOD  ALL       00043872
582570.25000 4196189.66000 1.1210030e-01    51.11    51.11     1.50  PERIOD  ALL       00043872
582581.92000 4196153.58000 2.4330380e-01    51.22    51.22     1.50  PERIOD  ALL       00043872
582463.82000 4196121.33000 1.4074490e-01    49.92    49.92     1.50  PERIOD  ALL       00043872
582264.05000 4196238.14000 7.7339070e-03    44.72   192.37     1.50  PERIOD  ALL       00043872
582273.20000 4196240.46000 1.4325630e-02    45.03    46.86     1.50  PERIOD  ALL       00043872
582284.00000 4196197.16000 4.8816710e-02    47.21    47.55     1.50  PERIOD  ALL       00043872
582329.90000 4196208.30000 5.0235600e-02    47.88    47.88     1.50  PERIOD  ALL       00043872
582341.34000 4196162.11000 8.9003310e-02    49.90    50.56     1.50  PERIOD  ALL       00043872
582286.24000 4196148.61000 5.2865250e-02    46.19   192.37     1.50  PERIOD  ALL       00043872
582969.53000 4195797.56000 2.3693320e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on C- Non-Residential on A,B,D,E - Off-Site Residential

HARP Project Summary Report 12/6/2022 3:13:02 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC4_RES
Project Output Directory: C:\HARP2\PROJECTS\TWC4_RES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	48.29	0	1
SITE_B	9901	DieselExhPM	1	16.53	0	1
SITE_C	9901	DieselExhPM	1	46.39	0	1
SITE_D	9901	DieselExhPM	1	16.77	0	1
SITE_E	9901	DieselExhPM	1	9.68	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/1/2022 1:08:46 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC4_RES\hra\TWC4_RES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC4_RES\hra\TWC4_RES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 1:09:05 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	327	ALL	582626	4196098	2.2543000e-05
2	415	ALL	582631	4196098	2.1340000e-05
3	414	ALL	582626	4196094	2.1176000e-05
4	416	ALL	582636	4196099	2.0188000e-05
5	413	ALL	582627	4196091	1.9873000e-05
6	417	ALL	582640	4196099	1.9099000e-05
7	412	ALL	582627	4196087	1.8630000e-05
8	418	ALL	582645	4196099	1.8071000e-05
9	326	ALL	582627	4196083	1.7453000e-05
10	419	ALL	582650	4196099	1.7105000e-05

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/1/2022 5:52:17 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	327	ALL	582626	4196098	1.3179000e-02
2	415	ALL	582631	4196098	1.2476000e-02
3	414	ALL	582626	4196094	1.2380000e-02
4	416	ALL	582636	4196099	1.1803000e-02
5	413	ALL	582627	4196091	1.1619000e-02
6	417	ALL	582640	4196099	1.1166000e-02
7	412	ALL	582627	4196087	1.0892000e-02
8	418	ALL	582645	4196099	1.0565000e-02
9	326	ALL	582627	4196083	1.0204000e-02
10	419	ALL	582650	4196099	1.0000000e-02

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* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/01/22
* AERMET ( 14134):                                                                        01:08:33
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   644 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ ____________ _____________ _______ _______ _______ _______ _________ ________ ________
  582033.26000 4196289.55000 8.4461090e-04   44.86   239.60     1.50  PERIOD  ALL       00043872
  582098.16000 4196263.48000 1.3276210e-03   50.22   198.92     1.50  PERIOD  ALL       00043872
  582100.26000 4196247.28000 1.4988300e-03   50.77   198.92     1.50  PERIOD  ALL       00043872
  582096.16000 4196234.19000 1.6337460e-03   50.61   198.92     1.50  PERIOD  ALL       00043872
  582034.59000 4196258.60000 1.0244760e-03   46.16   239.60     1.50  PERIOD  ALL       00043872
  582037.90000 4196287.69000 8.7071760e-04   45.36   239.60     1.50  PERIOD  ALL       00043872
  582042.53000 4196285.83000 8.9626010e-04   46.24   239.60     1.50  PERIOD  ALL       00043872
  582047.17000 4196283.96000 9.2075590e-04   47.79   239.60     1.50  PERIOD  ALL       00043872
  582051.80000 4196282.10000 9.4146070e-04   48.91   198.92     1.50  PERIOD  ALL       00043872
  582056.44000 4196280.24000 9.6216440e-04   49.85   198.92     1.50  PERIOD  ALL       00043872
  582061.07000 4196278.38000 9.9009260e-04   50.18   198.92     1.50  PERIOD  ALL       00043872
  582065.71000 4196276.51000 1.0213910e-03   50.40   198.92     1.50  PERIOD  ALL       00043872
  582070.35000 4196274.65000 1.0559820e-03   50.50   198.92     1.50  PERIOD  ALL       00043872
  582074.98000 4196272.79000 1.0927300e-03   50.58   198.92     1.50  PERIOD  ALL       00043872
  582079.62000 4196270.93000 1.1312600e-03   50.68   198.92     1.50  PERIOD  ALL       00043872
  582084.25000 4196269.07000 1.1740080e-03   50.66   198.92     1.50  PERIOD  ALL       00043872
  582088.89000 4196267.20000 1.2191850e-03   50.66   198.92     1.50  PERIOD  ALL       00043872
  582093.52000 4196265.34000 1.2710380e-03   50.46   198.92     1.50  PERIOD  ALL       00043872
  582098.69000 4196259.43000 1.3634120e-03   50.48   198.92     1.50  PERIOD  ALL       00043872
  582099.21000 4196255.38000 1.4026510e-03   50.70   198.92     1.50  PERIOD  ALL       00043872
  582099.73000 4196251.33000 1.4494050e-03   50.72   198.92     1.50  PERIOD  ALL       00043872
  582098.89000 4196242.92000 1.5389000e-03   50.78   198.92     1.50  PERIOD  ALL       00043872
  582097.53000 4196238.55000 1.5843570e-03   50.71   198.92     1.50  PERIOD  ALL       00043872
  582091.76000 4196235.93000 1.5625730e-03   50.82   198.92     1.50  PERIOD  ALL       00043872
  582087.36000 4196237.68000 1.4990560e-03   50.90   198.92     1.50  PERIOD  ALL       00043872
  582082.97000 4196239.42000 1.4408170e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582078.57000 4196241.16000 1.3866030e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582074.17000 4196242.91000 1.3354650e-03   50.93   198.92     1.50  PERIOD  ALL       00043872
  582069.77000 4196244.65000 1.2882460e-03   50.88   198.92     1.50  PERIOD  ALL       00043872
  582065.38000 4196246.39000 1.2436800e-03   50.83   198.92     1.50  PERIOD  ALL       00043872
  582060.98000 4196248.14000 1.2031340e-03   50.67   198.92     1.50  PERIOD  ALL       00043872
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  582052.18000 4196251.63000 1.1376600e-03   49.73   198.92     1.50  PERIOD  ALL       00043872
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  582038.99000 4196256.86000 1.0565260e-03   46.60   239.60     1.50  PERIOD  ALL       00043872
  582034.40000 4196263.02000 9.9349550e-04   46.03   239.60     1.50  PERIOD  ALL       00043872
  582034.21000 4196267.44000 9.6452000e-04   45.87   239.60     1.50  PERIOD  ALL       00043872
  582034.02000 4196271.86000 9.3750190e-04   45.67   239.60     1.50  PERIOD  ALL       00043872
  582033.83000 4196276.29000 9.1216610e-04   45.46   239.60     1.50  PERIOD  ALL       00043872
  582033.64000 4196280.71000 8.8832440e-04   45.23   239.60     1.50  PERIOD  ALL       00043872
  582033.45000 4196285.13000 8.6583190e-04   45.01   239.60     1.50  PERIOD  ALL       00043872
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  581945.42000 4196182.66000 1.2497100e-03   51.19   239.60     1.50  PERIOD  ALL       00043872
  581956.94000 4196148.43000 1.7470790e-03   50.82   239.60     1.50  PERIOD  ALL       00043872
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  581943.39000 4196122.05000 1.9972860e-03   51.57   239.60     1.50  PERIOD  ALL       00043872
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  581946.86000 4196178.38000 1.3035380e-03   51.06   239.60     1.50  PERIOD  ALL       00043872
  581948.30000 4196174.10000 1.3596370e-03   50.96   239.60     1.50  PERIOD  ALL       00043872
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  581951.18000 4196165.54000 1.4780370e-03   50.90   239.60     1.50  PERIOD  ALL       00043872
  581952.62000 4196161.27000 1.5410330e-03   50.88   239.60     1.50  PERIOD  ALL       00043872
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  581955.50000 4196152.71000 1.6748450e-03   50.89   239.60     1.50  PERIOD  ALL       00043872
  581955.95000 4196144.00000 1.8036010e-03   50.74   239.60     1.50  PERIOD  ALL       00043872
  581954.95000 4196139.58000 1.8600870e-03   50.70   239.60     1.50  PERIOD  ALL       00043872
  581953.96000 4196135.15000 1.9164290e-03   50.73   239.60     1.50  PERIOD  ALL       00043872
  581949.78000 4196127.83000 1.9805030e-03   51.11   239.60     1.50  PERIOD  ALL       00043872
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581946.58000 4196124.94000 1.9882930e-03    51.39   239.60     1.50  PERIOD  ALL       00043872
581942.48000 4196117.99000 2.0482650e-03    51.56   239.60     1.50  PERIOD  ALL       00043872
581938.35000 4196110.51000 2.1177830e-03    51.47   239.60     1.50  PERIOD  ALL       00043872
581935.13000 4196107.11000 2.1302600e-03    51.69   239.60     1.50  PERIOD  ALL       00043872
581931.90000 4196103.70000 2.1409520e-03    51.97   239.60     1.50  PERIOD  ALL       00043872
581928.68000 4196100.29000 2.1520910e-03    52.17   239.60     1.50  PERIOD  ALL       00043872
581925.45000 4196096.88000 2.1574250e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581922.23000 4196093.48000 2.1536830e-03    53.01   239.60     1.50  PERIOD  ALL       00043872
581920.20000 4196094.73000 2.1023120e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
581921.40000 4196099.40000 2.0504870e-03    53.40   239.60     1.50  PERIOD  ALL       00043872
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581924.99000 4196113.38000 1.8918620e-03    53.51   239.60     1.50  PERIOD  ALL       00043872
581926.19000 4196118.05000 1.8408350e-03    53.46   239.60     1.50  PERIOD  ALL       00043872
581927.39000 4196122.71000 1.8007980e-03    53.31   239.60     1.50  PERIOD  ALL       00043872
581928.59000 4196127.37000 1.7511890e-03    53.22   239.60     1.50  PERIOD  ALL       00043872
581929.79000 4196132.04000 1.6981980e-03    53.34   239.60     1.50  PERIOD  ALL       00043872
581930.99000 4196136.70000 1.6377900e-03    53.41   239.60     1.50  PERIOD  ALL       00043872
581932.19000 4196141.36000 1.5980800e-03    53.36   239.60     1.50  PERIOD  ALL       00043872
581933.39000 4196146.03000 1.5505820e-03    53.27   239.60     1.50  PERIOD  ALL       00043872
581934.59000 4196150.69000 1.5062350e-03    53.04   239.60     1.50  PERIOD  ALL       00043872
581935.79000 4196155.35000 1.4769430e-03    52.75   239.60     1.50  PERIOD  ALL       00043872
581936.98000 4196160.01000 1.4310860e-03    52.67   239.60     1.50  PERIOD  ALL       00043872
581938.18000 4196164.68000 1.3854510e-03    52.65   239.60     1.50  PERIOD  ALL       00043872
581939.38000 4196169.34000 1.3419910e-03    52.55   239.60     1.50  PERIOD  ALL       00043872
581940.58000 4196174.00000 1.3007690e-03    52.36   239.60     1.50  PERIOD  ALL       00043872
581941.78000 4196178.67000 1.2611450e-03    52.12   239.60     1.50  PERIOD  ALL       00043872
581947.23000 4195600.07000 7.8511550e-04    52.07   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195619.11000 8.3303070e-04    49.42   198.92     1.50  PERIOD  ALL       00043872
581993.92000 4195615.12000 8.1474640e-04    49.69   198.92     1.50  PERIOD  ALL       00043872
582029.86000 4195628.63000 8.4350610e-04    48.73   198.92     1.50  PERIOD  ALL       00043872
582030.17000 4195545.08000 5.4706340e-04    48.40   198.92     1.50  PERIOD  ALL       00043872
581948.92000 4195544.31000 5.9190330e-04    52.82   198.92     1.50  PERIOD  ALL       00043872
581948.30000 4195553.07000 6.1645440e-04    53.14   198.92     1.50  PERIOD  ALL       00043872
581931.10000 4195560.75000 6.5435290e-04    53.84   198.92     1.50  PERIOD  ALL       00043872
581947.84000 4195596.69000 7.7104450e-04    52.28   198.92     1.50  PERIOD  ALL       00043872
581951.47000 4195601.80000 7.8926510e-04    51.82   198.92     1.50  PERIOD  ALL       00043872
581955.72000 4195603.53000 7.9360780e-04    51.53   198.92     1.50  PERIOD  ALL       00043872
581959.96000 4195605.26000 7.9779980e-04    51.29   198.92     1.50  PERIOD  ALL       00043872
581964.21000 4195606.99000 8.0200090e-04    51.06   198.92     1.50  PERIOD  ALL       00043872
581968.45000 4195608.72000 8.0618740e-04    50.85   198.92     1.50  PERIOD  ALL       00043872
581972.70000 4195610.46000 8.1043770e-04    50.64   198.92     1.50  PERIOD  ALL       00043872
581976.94000 4195612.19000 8.1490430e-04    50.38   198.92     1.50  PERIOD  ALL       00043872
581981.19000 4195613.92000 8.1941110e-04    50.12   198.92     1.50  PERIOD  ALL       00043872
581985.43000 4195615.65000 8.2403780e-04    49.85   198.92     1.50  PERIOD  ALL       00043872
581989.68000 4195617.38000 8.2874470e-04    49.58   198.92     1.50  PERIOD  ALL       00043872
581998.41000 4195616.81000 8.1874880e-04    49.47   198.92     1.50  PERIOD  ALL       00043872
582002.91000 4195618.50000 8.2251270e-04    49.29   198.92     1.50  PERIOD  ALL       00043872
582007.40000 4195620.19000 8.2609480e-04    49.16   198.92     1.50  PERIOD  ALL       00043872
582011.89000 4195621.88000 8.2981300e-04    49.01   198.92     1.50  PERIOD  ALL       00043872
582016.38000 4195623.56000 8.3345820e-04    48.88   198.92     1.50  PERIOD  ALL       00043872
582020.88000 4195625.25000 8.3687870e-04    48.79   198.92     1.50  PERIOD  ALL       00043872
582025.37000 4195626.94000 8.4020760e-04    48.75   198.92     1.50  PERIOD  ALL       00043872
582029.88000 4195623.71000 8.2110830e-04    48.77   198.92     1.50  PERIOD  ALL       00043872
582029.90000 4195618.80000 7.9943310e-04    48.81   198.92     1.50  PERIOD  ALL       00043872
582029.91000 4195613.89000 7.7846490e-04    48.84   198.92     1.50  PERIOD  ALL       00043872
582029.93000 4195608.97000 7.5812300e-04    48.86   198.92     1.50  PERIOD  ALL       00043872
582029.95000 4195604.06000 7.3803590e-04    48.98   198.92     1.50  PERIOD  ALL       00043872
582029.97000 4195599.14000 7.1842430e-04    49.13   198.92     1.50  PERIOD  ALL       00043872
582029.99000 4195594.23000 6.9934020e-04    49.32   198.92     1.50  PERIOD  ALL       00043872
582030.01000 4195589.31000 6.8073500e-04    49.52   198.92     1.50  PERIOD  ALL       00043872
582030.02000 4195584.40000 6.6254130e-04    49.76   198.92     1.50  PERIOD  ALL       00043872
582030.04000 4195579.48000 6.4485110e-04    50.02   198.92     1.50  PERIOD  ALL       00043872
582030.06000 4195574.57000 6.2879750e-04    50.01   198.92     1.50  PERIOD  ALL       00043872
582030.08000 4195569.65000 6.1411870e-04    49.76   198.92     1.50  PERIOD  ALL       00043872
582030.10000 4195564.74000 6.0011550e-04    49.47   198.92     1.50  PERIOD  ALL       00043872
582030.12000 4195559.82000 5.8652720e-04    49.13   198.92     1.50  PERIOD  ALL       00043872
582030.13000 4195554.91000 5.7325480e-04    48.83   198.92     1.50  PERIOD  ALL       00043872
582030.15000 4195550.00000 5.5996010e-04    48.61   198.92     1.50  PERIOD  ALL       00043872
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582025.39000 4195545.04000 5.5002830e-04    48.65   198.92     1.50  PERIOD  ALL       00043872
582020.61000 4195544.99000 5.5292300e-04    48.93   198.92     1.50  PERIOD  ALL       00043872
582015.83000 4195544.94000 5.5558210e-04    49.22   198.92     1.50  PERIOD  ALL       00043872
582011.05000 4195544.90000 5.5855300e-04    49.44   198.92     1.50  PERIOD  ALL       00043872
582006.27000 4195544.85000 5.6144400e-04    49.65   198.92     1.50  PERIOD  ALL       00043872
582001.49000 4195544.81000 5.6430430e-04    49.89   198.92     1.50  PERIOD  ALL       00043872
581996.71000 4195544.76000 5.6702960e-04    50.19   198.92     1.50  PERIOD  ALL       00043872
581991.93000 4195544.72000 5.6967860e-04    50.53   198.92     1.50  PERIOD  ALL       00043872
581987.16000 4195544.67000 5.7260400e-04    50.79   198.92     1.50  PERIOD  ALL       00043872
581982.38000 4195544.63000 5.7561690e-04    51.03   198.92     1.50  PERIOD  ALL       00043872
581977.60000 4195544.58000 5.7856280e-04    51.29   198.92     1.50  PERIOD  ALL       00043872
581972.82000 4195544.54000 5.8153470e-04    51.56   198.92     1.50  PERIOD  ALL       00043872
581968.04000 4195544.49000 5.8436850e-04    51.86   198.92     1.50  PERIOD  ALL       00043872
581963.26000 4195544.45000 5.8745200e-04    52.08   198.92     1.50  PERIOD  ALL       00043872
581958.48000 4195544.40000 5.9051960e-04    52.28   198.92     1.50  PERIOD  ALL       00043872
581953.70000 4195544.36000 5.9342650e-04    52.56   198.92     1.50  PERIOD  ALL       00043872
581948.61000 4195548.69000 6.0406720e-04    52.97   198.92     1.50  PERIOD  ALL       00043872
581944.00000 4195554.99000 6.2778610e-04    53.40   198.92     1.50  PERIOD  ALL       00043872
581939.70000 4195556.91000 6.3644940e-04    53.61   198.92     1.50  PERIOD  ALL       00043872
581935.40000 4195558.83000 6.4528750e-04    53.76   198.92     1.50  PERIOD  ALL       00043872
581933.19000 4195565.24000 6.6706730e-04    53.80   198.92     1.50  PERIOD  ALL       00043872
581935.29000 4195569.74000 6.8054250e-04    53.62   198.92     1.50  PERIOD  ALL       00043872
581937.38000 4195574.23000 6.9432920e-04    53.44   198.92     1.50  PERIOD  ALL       00043872
581939.47000 4195578.72000 7.0416870e-04    53.24   198.92     1.50  PERIOD  ALL       00043872
581941.56000 4195583.21000 7.1893630e-04    53.02   198.92     1.50  PERIOD  ALL       00043872
581943.66000 4195587.71000 7.3964070e-04    52.81   198.92     1.50  PERIOD  ALL       00043872
581945.75000 4195592.20000 7.5505600e-04    52.56   198.92     1.50  PERIOD  ALL       00043872
582105.22000 4195523.70000 4.5355850e-04    48.23   198.92     1.50  PERIOD  ALL       00043872
582123.65000 4195523.34000 4.4572310e-04    47.05   198.92     1.50  PERIOD  ALL       00043872
582123.83000 4195483.04000 3.7373380e-04    50.44   198.92     1.50  PERIOD  ALL       00043872
582105.22000 4195482.86000 3.7589400e-04    51.62   198.92     1.50  PERIOD  ALL       00043872
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582734.81000 4195997.75000 1.2084670e-02    43.58    43.58     1.50  PERIOD  ALL       00043872
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582637.21000 4195782.87000 1.7143470e-03    41.01    41.01     1.50  PERIOD  ALL       00043872
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582387.74000 4196467.00000 2.6484180e-03    45.33    45.33     1.50  PERIOD  ALL       00043872
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582344.44000 4196558.03000 1.1759580e-03    40.16    44.94     1.50  PERIOD  ALL       00043872
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582427.14000 4196552.46000 1.6055160e-03    40.73    43.10     1.50  PERIOD  ALL       00043872
582444.44000 4196555.39000 1.6714780e-03    40.47    40.47     1.50  PERIOD  ALL       00043872
582453.24000 4196556.27000 1.7108580e-03    40.32    40.32     1.50  PERIOD  ALL       00043872
582489.33000 4196555.69000 1.9084760e-03    38.28    38.28     1.50  PERIOD  ALL       00043872
582484.65000 4196569.19000 1.7453880e-03    38.39    38.39     1.50  PERIOD  ALL       00043872
582496.71000 4196570.63000 1.7930070e-03    38.32    38.32     1.50  PERIOD  ALL       00043872
582506.98000 4196569.91000 1.8520750e-03    38.27    38.27     1.50  PERIOD  ALL       00043872
582518.87000 4196567.93000 1.9322630e-03    38.19    38.19     1.50  PERIOD  ALL       00043872
582516.53000 4196556.41000 2.0500960e-03    38.13    38.13     1.50  PERIOD  ALL       00043872
582535.80000 4196557.31000 2.1333930e-03    36.96    36.96     1.50  PERIOD  ALL       00043872
582530.57000 4196570.27000 1.9594520e-03    37.33    37.33     1.50  PERIOD  ALL       00043872
582543.72000 4196571.36000 2.0071500e-03    36.99    36.99     1.50  PERIOD  ALL       00043872
582556.87000 4196572.08000 2.0573420e-03    36.92    36.92     1.50  PERIOD  ALL       00043872
582567.32000 4196570.09000 2.1252150e-03    36.90    36.90     1.50  PERIOD  ALL       00043872
582561.19000 4196558.21000 2.2458930e-03    36.82    36.82     1.50  PERIOD  ALL       00043872
582581.90000 4196569.91000 2.1831560e-03    36.14    36.14     1.50  PERIOD  ALL       00043872
582593.43000 4196571.17000 2.2117800e-03    36.01    36.01     1.50  PERIOD  ALL       00043872
582604.60000 4196569.19000 2.2796140e-03    36.03    36.03     1.50  PERIOD  ALL       00043872
582616.48000 4196567.75000 2.3436670e-03    35.92    35.92     1.50  PERIOD  ALL       00043872
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582579.92000 4196557.49000 2.3367670e-03    36.12    36.12     1.50  PERIOD  ALL       00043872
582607.30000 4196553.88000 2.5138350e-03    35.89    35.89     1.50  PERIOD  ALL       00043872
582667.79000 4196561.35000 2.5476820e-03    35.94    35.94     1.50  PERIOD  ALL       00043872
582689.19000 4196564.74000 2.4680620e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582712.92000 4196566.64000 2.4016730e-03    34.67    34.67     1.50  PERIOD  ALL       00043872
582690.04000 4196544.61000 2.7662630e-03    35.37    35.37     1.50  PERIOD  ALL       00043872
582665.67000 4196523.63000 3.3219030e-03    35.90    35.90     1.50  PERIOD  ALL       00043872
582691.10000 4196523.84000 3.1157030e-03    35.11    35.11     1.50  PERIOD  ALL       00043872
582709.53000 4196522.78000 3.0335710e-03    34.79    34.79     1.50  PERIOD  ALL       00043872
582731.36000 4196522.14000 2.9404640e-03    34.77    34.77     1.50  PERIOD  ALL       00043872
582750.64000 4196522.99000 2.8410760e-03    34.90    34.90     1.50  PERIOD  ALL       00043872
582771.20000 4196517.06000 2.8277610e-03    35.50    35.50     1.50  PERIOD  ALL       00043872
582691.10000 4196507.95000 3.4087870e-03    34.83    34.83     1.50  PERIOD  ALL       00043872
582688.98000 4196578.72000 2.2885310e-03    34.60    34.60     1.50  PERIOD  ALL       00043872
582749.57000 4196499.70000 3.1922140e-03    35.30    35.30     1.50  PERIOD  ALL       00043872
582750.42000 4196479.14000 3.5255780e-03    35.09    35.09     1.50  PERIOD  ALL       00043872
582731.99000 4196470.67000 3.8198500e-03    34.73    34.73     1.50  PERIOD  ALL       00043872
582713.97000 4196470.46000 3.9735140e-03    34.72    34.72     1.50  PERIOD  ALL       00043872
582691.72000 4196480.20000 3.9640680e-03    34.84    34.84     1.50  PERIOD  ALL       00043872
582691.33000 4196465.17000 4.3119330e-03    35.14    35.14     1.50  PERIOD  ALL       00043872
582655.76000 4196468.88000 4.7515920e-03    35.81    35.81     1.50  PERIOD  ALL       00043872
582673.94000 4196469.17000 4.4320380e-03    35.72    35.72     1.50  PERIOD  ALL       00043872
582658.37000 4196433.11000 5.7038430e-03    35.85    35.85     1.50  PERIOD  ALL       00043872
582674.90000 4196431.73000 5.4455400e-03    35.74    35.74     1.50  PERIOD  ALL       00043872
582692.82000 4196431.12000 5.1926010e-03    35.09    35.09     1.50  PERIOD  ALL       00043872
582745.49000 4196432.65000 4.5110500e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582724.20000 4196430.51000 4.8093200e-03    34.70    34.70     1.50  PERIOD  ALL       00043872
582726.81000 4196408.31000 5.3966500e-03    34.78    34.78     1.50  PERIOD  ALL       00043872
582739.21000 4196387.87000 5.8279680e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582714.01000 4196386.96000 6.3273610e-03    34.77    34.77     1.50  PERIOD  ALL       00043872
582693.47000 4196394.35000 6.4368090e-03    34.93    40.93     1.50  PERIOD  ALL       00043872
582668.79000 4196377.78000 7.7810440e-03    35.88    51.10     1.50  PERIOD  ALL       00043872
582690.59000 4196381.02000 7.0632540e-03    35.06    51.03     1.50  PERIOD  ALL       00043872
582691.61000 4196446.71000 4.7782550e-03    35.43    35.43     1.50  PERIOD  ALL       00043872
582693.64000 4196419.51000 5.5354360e-03    34.92    34.92     1.50  PERIOD  ALL       00043872
582681.46000 4196345.62000 9.3582720e-03    35.85    51.10     1.50  PERIOD  ALL       00043872
582694.86000 4196362.26000 7.8839000e-03    35.33    51.10     1.50  PERIOD  ALL       00043872
582695.26000 4196343.18000 8.9407810e-03    35.12    51.10     1.50  PERIOD  ALL       00043872
582730.59000 4196341.96000 7.8075320e-03    34.92    44.98     1.50  PERIOD  ALL       00043872
582712.72000 4196340.75000 8.4445090e-03    34.80    51.10     1.50  PERIOD  ALL       00043872
582694.86000 4196326.94000 1.0064540e-02    35.31    51.10     1.50  PERIOD  ALL       00043872
582844.74000 4196481.31000 2.8515770e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582893.93000 4196475.37000 2.6162730e-03    35.63    35.63     1.50  PERIOD  ALL       00043872
582962.53000 4196348.78000 3.1907440e-03    36.21    36.21     1.50  PERIOD  ALL       00043872
582984.06000 4196390.20000 2.6636000e-03    35.72    35.72     1.50  PERIOD  ALL       00043872
582990.96000 4196440.96000 2.2861650e-03    35.40    35.40     1.50  PERIOD  ALL       00043872
582948.13000 4196291.48000 3.9549500e-03    36.62    36.62     1.50  PERIOD  ALL       00043872
583008.88000 4195915.35000 3.6957220e-03    38.44    38.44     1.50  PERIOD  ALL       00043872
582977.17000 4195892.70000 3.6692090e-03    38.24    38.24     1.50  PERIOD  ALL       00043872
583020.23000 4195884.58000 3.2626190e-03    38.25    38.25     1.50  PERIOD  ALL       00043872
582962.96000 4195845.99000 3.0568180e-03    38.54    38.54     1.50  PERIOD  ALL       00043872
582931.68000 4195832.99000 2.9457270e-03    38.07    38.16     1.50  PERIOD  ALL       00043872
582904.67000 4195758.12000 1.8687640e-03    38.69    38.69     1.50  PERIOD  ALL       00043872
582929.36000 4195775.08000 2.0977020e-03    38.59    38.59     1.50  PERIOD  ALL       00043872
582955.30000 4195782.31000 2.1888850e-03    38.82    38.82     1.50  PERIOD  ALL       00043872
582975.76000 4195804.26000 2.4460040e-03    38.64    38.64     1.50  PERIOD  ALL       00043872
581974.48000 4196230.19000 9.7332830e-04    49.44   239.60     1.50  PERIOD  ALL       00043872
582000.84000 4196240.46000 1.0108930e-03    48.02   239.60     1.50  PERIOD  ALL       00043872
581989.04000 4196219.92000 1.1226960e-03    48.96   239.60     1.50  PERIOD  ALL       00043872
581875.50000 4196239.39000 6.4858270e-04    50.50   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196330.59000 3.7293630e-04    50.54   239.60     1.50  PERIOD  ALL       00043872
581868.94000 4196334.74000 3.7724350e-04    49.83   239.60     1.50  PERIOD  ALL       00043872
581881.72000 4196337.50000 3.8864770e-04    48.90   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196297.43000 4.4176410e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581828.45000 4196325.17000 3.5044880e-04    51.70   239.60     1.50  PERIOD  ALL       00043872
581839.13000 4196330.64000 3.5174090e-04    51.27   239.60     1.50  PERIOD  ALL       00043872
581848.13000 4196290.25000 4.4359100e-04    50.57   239.60     1.50  PERIOD  ALL       00043872
581843.73000 4196366.54000 3.0378300e-04    50.95   239.60     1.50  PERIOD  ALL       00043872
581855.07000 4196368.89000 3.1097410e-04    50.44   239.60     1.50  PERIOD  ALL       00043872
```

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581866.14000 4196373.32000 3.1576000e-04    49.96   239.60     1.50  PERIOD  ALL       00043872
581849.14000 4196393.05000 2.7769310e-04    50.43   239.60     1.50  PERIOD  ALL       00043872
581862.79000 4196398.11000 2.8379310e-04    49.88   239.60     1.50  PERIOD  ALL       00043872
581918.46000 4196386.85000 3.5498290e-04    48.65   239.60     1.50  PERIOD  ALL       00043872
581902.26000 4196417.16000 2.9973930e-04    49.41   239.60     1.50  PERIOD  ALL       00043872
581910.45000 4196402.67000 3.2498890e-04    49.10   239.60     1.50  PERIOD  ALL       00043872
581895.74000 4196442.96000 2.6939780e-04    49.52   239.60     1.50  PERIOD  ALL       00043872
581885.31000 4196457.98000 2.4885320e-04    49.75   239.60     1.50  PERIOD  ALL       00043872
581928.85000 4196461.51000 2.8570830e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581844.07000 4196437.28000 2.3296350e-04    50.76   239.60     1.50  PERIOD  ALL       00043872
581879.44000 4196475.56000 2.3320320e-04    49.84   239.60     1.50  PERIOD  ALL       00043872
581873.88000 4196494.74000 2.1952290e-04    49.73   239.60     1.50  PERIOD  ALL       00043872
581910.07000 4196515.59000 2.3828650e-04    49.43   239.60     1.50  PERIOD  ALL       00043872
581912.06000 4196492.75000 2.5024690e-04    49.71   239.60     1.50  PERIOD  ALL       00043872
581885.94000 4196504.72000 2.2391180e-04    49.55   239.60     1.50  PERIOD  ALL       00043872
581916.78000 4196518.43000 2.4278730e-04    49.40   239.60     1.50  PERIOD  ALL       00043872
581931.94000 4196530.87000 2.5139530e-04    49.22   239.60     1.50  PERIOD  ALL       00043872
581951.60000 4196541.15000 2.6649040e-04    48.80   239.60     1.50  PERIOD  ALL       00043872
581965.85000 4196564.96000 2.7236590e-04    48.25   239.60     1.50  PERIOD  ALL       00043872
581878.20000 4196549.30000 2.0406070e-04    49.25   239.60     1.50  PERIOD  ALL       00043872
581894.45000 4196559.42000 2.1306230e-04    48.97   239.60     1.50  PERIOD  ALL       00043872
581912.85000 4196572.30000 2.2399050e-04    48.61   239.60     1.50  PERIOD  ALL       00043872
581932.02000 4196584.57000 2.3660200e-04    48.24   239.60     1.50  PERIOD  ALL       00043872
581955.28000 4196590.58000 2.5455330e-04    47.86   239.60     1.50  PERIOD  ALL       00043872
581974.26000 4196604.31000 2.6727660e-04    47.34   239.60     1.50  PERIOD  ALL       00043872
581960.52000 4196631.52000 2.4836630e-04    45.94   239.60     1.50  PERIOD  ALL       00043872
581946.79000 4196621.04000 2.4019140e-04    46.17   239.60     1.50  PERIOD  ALL       00043872
581926.07000 4196607.05000 2.2729440e-04    46.78   239.60     1.50  PERIOD  ALL       00043872
581953.78000 4196662.48000 2.3593700e-04    45.14   239.60     1.50  PERIOD  ALL       00043872
581944.04000 4196677.71000 2.2611250e-04    45.37   239.60     1.50  PERIOD  ALL       00043872
581935.31000 4196689.20000 2.1835200e-04    45.59   239.60     1.50  PERIOD  ALL       00043872
581914.58000 4196649.50000 2.1162930e-04    46.35   239.60     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on C- Non-Residential on A,B,D,E - Off-Site Preschool

HARP Project Summary Report 12/6/2022 5:41:21 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC4_PS
Project Output Directory: C:\HARP2\PROJECTS\TWC4_PS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	48.29	0	1
SITE_B	9901	DieselExhPM	1	16.53	0	1
SITE_C	9901	DieselExhPM	1	46.39	0	1
SITE_D	9901	DieselExhPM	1	16.77	0	1
SITE_E	9901	DieselExhPM	1	9.68	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/6/2022 5:40:22 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

**********
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 3
Total Exposure Duration: 2

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

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC4_PS\hra\TWC4_PS_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC4_PS\hra\TWC4_PS_Cancer_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 5:40:56 AM
RISK SCENARIO: NCChronic

LINE	REC	TYPE	X	Y	CANCER RISK
1	1	ALL	581887	4195456	3.3384000e-08
2	10	ALL	581896	4195456	3.3363000e-08
3	9	ALL	581892	4195456	3.3251000e-08
4	11	ALL	581901	4195456	3.3195000e-08
5	12	ALL	581905	4195456	3.3027000e-08
6	2	ALL	581910	4195456	3.2856000e-08
7	85	ALL	581885	4195451	3.2833000e-08
8	13	ALL	581914	4195456	3.2625000e-08
9	14	ALL	581919	4195455	3.2392000e-08
10	84	ALL	581883	4195447	3.2300000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 5:41:09 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	1	ALL	581887	4195456	8.5773000e-05
2	10	ALL	581896	4195456	8.5719000e-05
3	9	ALL	581892	4195456	8.5429000e-05
4	11	ALL	581901	4195456	8.5285000e-05
5	12	ALL	581905	4195456	8.4856000e-05
6	2	ALL	581910	4195456	8.4416000e-05
7	85	ALL	581885	4195451	8.4356000e-05
8	13	ALL	581914	4195456	8.3821000e-05
9	14	ALL	581919	4195455	8.3224000e-05
10	84	ALL	581883	4195447	8.2986000e-05

* MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN
* PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 85 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
581887.28000	4195455.65000	4.2886330e-04	53.15	198.92	1.50	PERIOD	ALL	00043872	
581909.72000	4195456.02000	4.2207930e-04	52.26	198.92	1.50	PERIOD	ALL	00043872	
581923.66000	4195455.11000	4.1322240e-04	51.85	198.92	1.50	PERIOD	ALL	00043872	
581964.73000	4195436.83000	3.6434950e-04	50.37	198.92	1.50	PERIOD	ALL	00043872	
581990.43000	4195436.29000	3.5205770e-04	50.38	198.92	1.50	PERIOD	ALL	00043872	
581990.25000	4195361.56000	2.5684250e-04	54.41	198.92	1.50	PERIOD	ALL	00043872	
581873.17000	4195364.27000	2.9902240e-04	53.75	198.92	1.50	PERIOD	ALL	00043872	
581851.63000	4195376.03000	3.2305460e-04	53.50	198.92	1.50	PERIOD	ALL	00043872	
581891.77000	4195455.72000	4.2714510e-04	52.92	198.92	1.50	PERIOD	ALL	00043872	
581896.26000	4195455.80000	4.2859310e-04	52.72	198.92	1.50	PERIOD	ALL	00043872	
581900.74000	4195455.87000	4.2642700e-04	52.56	198.92	1.50	PERIOD	ALL	00043872	
581905.23000	4195455.95000	4.2427860e-04	52.41	198.92	1.50	PERIOD	ALL	00043872	
581914.37000	4195455.72000	4.1910350e-04	52.14	198.92	1.50	PERIOD	ALL	00043872	
581919.01000	4195455.41000	4.1612060e-04	52.02	198.92	1.50	PERIOD	ALL	00043872	
581928.22000	4195453.08000	4.0737160e-04	51.69	198.92	1.50	PERIOD	ALL	00043872	
581932.79000	4195451.05000	4.0156090e-04	51.54	198.92	1.50	PERIOD	ALL	00043872	
581937.35000	4195449.02000	3.9587720e-04	51.40	198.92	1.50	PERIOD	ALL	00043872	
581941.91000	4195446.99000	3.9028660e-04	51.24	198.92	1.50	PERIOD	ALL	00043872	
581946.48000	4195444.95000	3.8484520e-04	51.07	198.92	1.50	PERIOD	ALL	00043872	
581951.04000	4195442.92000	3.7954310e-04	50.89	198.92	1.50	PERIOD	ALL	00043872	
581955.60000	4195440.89000	3.7435560e-04	50.71	198.92	1.50	PERIOD	ALL	00043872	
581960.17000	4195438.86000	3.6935480e-04	50.51	198.92	1.50	PERIOD	ALL	00043872	
581969.01000	4195436.74000	3.6237350e-04	50.29	198.92	1.50	PERIOD	ALL	00043872	
581973.30000	4195436.65000	3.6031650e-04	50.27	198.92	1.50	PERIOD	ALL	00043872	
581977.58000	4195436.56000	3.5824350e-04	50.27	198.92	1.50	PERIOD	ALL	00043872	
581981.86000	4195436.47000	3.5618950e-04	50.29	198.92	1.50	PERIOD	ALL	00043872	
581986.15000	4195436.38000	3.5412580e-04	50.33	198.92	1.50	PERIOD	ALL	00043872	
581990.42000	4195431.31000	3.4492360e-04	50.51	198.92	1.50	PERIOD	ALL	00043872	
581990.41000	4195426.33000	3.3777280e-04	50.76	198.92	1.50	PERIOD	ALL	00043872	
581990.39000	4195421.34000	3.3074190e-04	51.06	198.92	1.50	PERIOD	ALL	00043872	
581990.38000	4195416.36000	3.2368440e-04	51.53	198.92	1.50	PERIOD	ALL	00043872	
581990.37000	4195411.38000	3.1686190e-04	51.99	198.92	1.50	PERIOD	ALL	00043872	
581990.36000	4195406.40000	3.1034540e-04	52.40	198.92	1.50	PERIOD	ALL	00043872	
581990.35000	4195401.42000	3.0408640e-04	52.78	198.92	1.50	PERIOD	ALL	00043872	
581990.33000	4195396.43000	2.9810910e-04	52.96	198.92	1.50	PERIOD	ALL	00043872	
581990.32000	4195391.45000	2.9253390e-04	53.13	198.92	1.50	PERIOD	ALL	00043872	
581990.31000	4195386.47000	2.8733090e-04	53.16	198.92	1.50	PERIOD	ALL	00043872	
581990.30000	4195381.49000	2.8225940e-04	53.19	198.92	1.50	PERIOD	ALL	00043872	
581990.29000	4195376.51000	2.7721320e-04	53.31	198.92	1.50	PERIOD	ALL	00043872	
581990.27000	4195371.52000	2.6847130e-04	53.44	198.92	1.50	PERIOD	ALL	00043872	
581990.26000	4195366.54000	2.6305330e-04	53.91	198.92	1.50	PERIOD	ALL	00043872	
581985.37000	4195361.67000	2.5681310e-04	54.91	198.92	1.50	PERIOD	ALL	00043872	
581980.49000	4195361.79000	2.5756680e-04	55.04	198.92	1.50	PERIOD	ALL	00043872	
581975.61000	4195361.90000	2.5858790e-04	55.06	198.92	1.50	PERIOD	ALL	00043872	
581970.74000	4195362.01000	2.5994040e-04	54.95	198.92	1.50	PERIOD	ALL	00043872	
581965.86000	4195362.13000	2.6152230e-04	54.77	198.92	1.50	PERIOD	ALL	00043872	
581960.98000	4195362.24000	2.6327440e-04	54.54	198.92	1.50	PERIOD	ALL	00043872	
581956.10000	4195362.35000	2.6507060e-04	54.33	198.92	1.50	PERIOD	ALL	00043872	
581951.22000	4195362.46000	2.6690260e-04	54.14	198.92	1.50	PERIOD	ALL	00043872	
581946.34000	4195362.58000	2.6868440e-04	54.00	198.92	1.50	PERIOD	ALL	00043872	
581941.47000	4195362.69000	2.7226620e-04	53.90	198.92	1.50	PERIOD	ALL	00043872	
581936.59000	4195362.80000	2.7402950e-04	53.84	198.92	1.50	PERIOD	ALL	00043872	
581931.71000	4195362.92000	2.7593130e-04	53.74	198.92	1.50	PERIOD	ALL	00043872	
581926.83000	4195363.03000	2.7784310e-04	53.65	198.92	1.50	PERIOD	ALL	00043872	
581921.95000	4195363.14000	2.7972550e-04	53.60	198.92	1.50	PERIOD	ALL	00043872	
581917.07000	4195363.25000	2.8153400e-04	53.60	198.92	1.50	PERIOD	ALL	00043872	
581912.20000	4195363.37000	2.8330240e-04	53.64	198.92	1.50	PERIOD	ALL	00043872	
581907.32000	4195363.48000	2.8511820e-04	53.67	198.92	1.50	PERIOD	ALL	00043872	
581902.44000	4195363.59000	2.8698660e-04	53.70	198.92	1.50	PERIOD	ALL	00043872	
581897.56000	4195363.71000	2.8893190e-04	53.70	198.92	1.50	PERIOD	ALL	00043872	

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581892.68000 4195363.82000 2.9091700e-04    53.70   198.92     1.50  PERIOD  ALL       00043872
581887.81000 4195363.93000 2.9291420e-04    53.71   198.92     1.50  PERIOD  ALL       00043872
581882.93000 4195364.04000 2.9495420e-04    53.71   198.92     1.50  PERIOD  ALL       00043872
581878.05000 4195364.16000 2.9703430e-04    53.71   198.92     1.50  PERIOD  ALL       00043872
581868.86000 4195366.62000 3.0385710e-04    53.60   198.92     1.50  PERIOD  ALL       00043872
581864.55000 4195368.97000 3.0879750e-04    53.43   198.92     1.50  PERIOD  ALL       00043872
581860.25000 4195371.33000 3.1560720e-04    53.32   198.92     1.50  PERIOD  ALL       00043872
581855.94000 4195373.68000 3.2014390e-04    53.31   198.92     1.50  PERIOD  ALL       00043872
581853.61000 4195380.45000 3.2958340e-04    53.26   198.92     1.50  PERIOD  ALL       00043872
581855.59000 4195384.88000 3.3439320e-04    53.31   198.92     1.50  PERIOD  ALL       00043872
581857.57000 4195389.30000 3.3929150e-04    53.36   198.92     1.50  PERIOD  ALL       00043872
581859.55000 4195393.72000 3.4338660e-04    53.39   198.92     1.50  PERIOD  ALL       00043872
581861.53000 4195398.15000 3.4956900e-04    53.37   198.92     1.50  PERIOD  ALL       00043872
581863.51000 4195402.57000 3.5405900e-04    53.41   198.92     1.50  PERIOD  ALL       00043872
581865.49000 4195406.99000 3.5950520e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
581867.47000 4195411.42000 3.6521700e-04    53.43   198.92     1.50  PERIOD  ALL       00043872
581869.45000 4195415.84000 3.7103640e-04    53.40   198.92     1.50  PERIOD  ALL       00043872
581871.44000 4195420.26000 3.7681860e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
581873.42000 4195424.69000 3.8254020e-04    53.60   198.92     1.50  PERIOD  ALL       00043872
581875.40000 4195429.11000 3.8849560e-04    53.69   198.92     1.50  PERIOD  ALL       00043872
581877.38000 4195433.53000 3.9482140e-04    53.67   198.92     1.50  PERIOD  ALL       00043872
581879.36000 4195437.96000 4.0133440e-04    53.64   198.92     1.50  PERIOD  ALL       00043872
581881.34000 4195442.38000 4.0795830e-04    53.61   198.92     1.50  PERIOD  ALL       00043872
581883.32000 4195446.80000 4.1492880e-04    53.49   198.92     1.50  PERIOD  ALL       00043872
581885.30000 4195451.23000 4.2177940e-04    53.24   198.92     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on C- Non-Residential on A, B, D, E - Off-Site Elementary

HARP Project Summary Report 12/6/2022 5:31:27 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC4_ES
Project Output Directory: C:\HARP2\PROJECTS\TWC4_ES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	48.29	0	1
SITE_B	9901	DieselExhPM	1	16.53	0	1
SITE_C	9901	DieselExhPM	1	46.39	0	1
SITE_D	9901	DieselExhPM	1	16.77	0	1
SITE_E	9901	DieselExhPM	1	9.68	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/6/2022 5:26:04 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 5
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC4_ES\hra\TWC4_ES_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC4_ES\hra\TWC4_ES_Cancer_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 5:26:58 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	158	ALL	582789	4196170	1.0185000e-06
2	383	ALL	582788	4196175	1.0104000e-06
3	384	ALL	582787	4196180	1.0017000e-06
4	385	ALL	582786	4196184	9.9212000e-07
5	386	ALL	582786	4196189	9.8185000e-07
6	382	ALL	582794	4196172	9.8072000e-07
7	387	ALL	582785	4196193	9.7101000e-07
8	388	ALL	582784	4196198	9.5982000e-07
9	389	ALL	582783	4196203	9.4821000e-07
10	381	ALL	582798	4196173	9.4553000e-07

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 5:29:34 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	158	ALL	582789	4196170	2.6167000e-03
2	383	ALL	582788	4196175	2.5961000e-03
3	384	ALL	582787	4196180	2.5736000e-03
4	385	ALL	582786	4196184	2.5490000e-03
5	386	ALL	582786	4196189	2.5226000e-03
6	382	ALL	582794	4196172	2.5197000e-03
7	387	ALL	582785	4196193	2.4948000e-03
8	388	ALL	582784	4196198	2.4660000e-03
9	389	ALL	582783	4196203	2.4362000e-03
10	381	ALL	582798	4196173	2.4293000e-03

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:25:41
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   643 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581750.36000 4196740.84000 1.2495500e-04   43.45   239.60     1.50  PERIOD  ALL       00043872
  581809.53000 4196562.92000 1.6318890e-04   48.69   239.60     1.50  PERIOD  ALL       00043872
  581675.28000 4196500.08000 1.3876590e-04   47.89   239.60     1.50  PERIOD  ALL       00043872
  581622.23000 4196652.29000 9.5642620e-05   46.83   239.60     1.50  PERIOD  ALL       00043872
  581627.95000 4196675.14000 9.4372120e-05   48.00   239.60     1.50  PERIOD  ALL       00043872
  581618.56000 4196709.01000 9.0199990e-05   47.70   239.60     1.50  PERIOD  ALL       00043872
  581751.92000 4196736.16000 1.2560830e-04   43.63   239.60     1.50  PERIOD  ALL       00043872
  581753.47000 4196731.48000 1.2627320e-04   43.82   239.60     1.50  PERIOD  ALL       00043872
  581755.03000 4196726.79000 1.2693150e-04   43.92   239.60     1.50  PERIOD  ALL       00043872
  581756.59000 4196722.11000 1.2760550e-04   43.96   239.60     1.50  PERIOD  ALL       00043872
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  581759.70000 4196712.75000 1.2898290e-04   44.05   239.60     1.50  PERIOD  ALL       00043872
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  581764.37000 4196698.70000 1.3118990e-04   44.38   239.60     1.50  PERIOD  ALL       00043872
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581866.20000 4195298.49000 2.2769340e-04    57.56   198.92     1.50  PERIOD  ALL       00043872
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581856.28000 4195298.20000 2.2970390e-04    57.73   198.92     1.50  PERIOD  ALL       00043872
581851.32000 4195298.05000 2.3081320e-04    57.78   198.92     1.50  PERIOD  ALL       00043872
581846.36000 4195297.91000 2.3186910e-04    57.88   198.92     1.50  PERIOD  ALL       00043872
581841.40000 4195297.76000 2.3238420e-04    58.29   198.92     1.50  PERIOD  ALL       00043872
581836.32000 4195302.27000 2.3702660e-04    58.62   198.92     1.50  PERIOD  ALL       00043872
581836.20000 4195306.91000 2.4138580e-04    58.45   198.92     1.50  PERIOD  ALL       00043872
581831.80000 4195312.83000 2.4779000e-04    58.62   198.92     1.50  PERIOD  ALL       00043872
581827.51000 4195314.09000 2.5030950e-04    58.67   198.92     1.50  PERIOD  ALL       00043872
581825.07000 4195319.69000 2.5779660e-04    58.02   198.92     1.50  PERIOD  ALL       00043872
581826.92000 4195324.01000 2.6259290e-04    57.43   198.92     1.50  PERIOD  ALL       00043872
581828.76000 4195328.34000 2.6741860e-04    56.90   198.92     1.50  PERIOD  ALL       00043872
581830.60000 4195332.67000 2.7175650e-04    56.65   198.92     1.50  PERIOD  ALL       00043872
581832.44000 4195337.00000 2.7623530e-04    56.38   198.92     1.50  PERIOD  ALL       00043872
581834.29000 4195341.32000 2.8076670e-04    56.12   198.92     1.50  PERIOD  ALL       00043872
581836.13000 4195345.65000 2.8545940e-04    55.84   198.92     1.50  PERIOD  ALL       00043872
581837.97000 4195349.98000 2.9028910e-04    55.54   198.92     1.50  PERIOD  ALL       00043872
581839.81000 4195354.30000 2.9531420e-04    55.20   198.92     1.50  PERIOD  ALL       00043872
581841.66000 4195358.63000 3.0057880e-04    54.80   198.92     1.50  PERIOD  ALL       00043872
```

Unmitigated Residences on C- Non-Residential on A, B, D, E - Off-Site Middle School

HARP Project Summary Report 12/6/2022 5:36:35 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC4_MS
Project Output Directory: C:\HARP2\PROJECTS\TWC4_MS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	48.29	0	1
SITE_B	9901	DieselExhPM	1	16.53	0	1
SITE_C	9901	DieselExhPM	1	46.39	0	1
SITE_D	9901	DieselExhPM	1	16.77	0	1
SITE_E	9901	DieselExhPM	1	9.68	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/6/2022 5:34:04 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

**********
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 11
Total Exposure Duration: 2

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

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

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

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC4_MS\hra\TWC4_MS_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC4_MS\hra\TWC4_MS_Cancer_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 5:34:31 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	5	ALL	581862	4195647	6.9287000e-08
2	1	ALL	581849	4195647	6.9281000e-08
3	45	ALL	581858	4195647	6.9265000e-08
4	41	ALL	581853	4195647	6.9251000e-08
5	173	ALL	581849	4195644	6.8419000e-08
6	6	ALL	581862	4195647	6.8238000e-08
7	46	ALL	581858	4195647	6.8188000e-08
8	2	ALL	581849	4195647	6.8178000e-08
9	42	ALL	581853	4195647	6.8157000e-08
10	49	ALL	581865	4195643	6.8105000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 5:53:50 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	5	ALL	581862	4195647	2.0573000e-04
2	1	ALL	581849	4195647	2.0571000e-04
3	45	ALL	581858	4195647	2.0567000e-04
4	41	ALL	581853	4195647	2.0563000e-04
5	173	ALL	581849	4195644	2.0315000e-04
6	6	ALL	581862	4195647	2.0262000e-04
7	46	ALL	581858	4195647	2.0247000e-04
8	2	ALL	581849	4195647	2.0244000e-04
9	42	ALL	581853	4195647	2.0238000e-04
10	49	ALL	581865	4195643	2.0222000e-04

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:33:33
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   176 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581849.04000 4195646.55000 1.0285720e-03   54.80   239.60    1.50  PERIOD  ALL       00043872
  581849.04000 4195646.56000 1.0121980e-03   54.80   239.60    4.50  PERIOD  ALL       00043872
  581849.04000 4195646.57000 9.8884620e-04   54.80   239.60    7.50  PERIOD  ALL       00043872
  581849.04000 4195646.58000 9.5822160e-04   54.80   239.60   10.50  PERIOD  ALL       00043872
  581862.03000 4195646.76000 1.0286630e-03   54.05   239.60    1.50  PERIOD  ALL       00043872
  581862.03000 4195646.77000 1.0130860e-03   54.05   239.60    4.50  PERIOD  ALL       00043872
  581862.03000 4195646.78000 9.9064890e-04   54.05   239.60    7.50  PERIOD  ALL       00043872
  581862.03000 4195646.79000 9.6091450e-04   54.05   239.60   10.50  PERIOD  ALL       00043872
  581878.85000 4195629.94000 9.4689360e-04   54.05   239.60    1.50  PERIOD  ALL       00043872
  581878.85000 4195629.95000 9.3270230e-04   54.05   239.60    4.50  PERIOD  ALL       00043872
  581878.85000 4195629.96000 9.1240800e-04   54.05   239.60    7.50  PERIOD  ALL       00043872
  581878.85000 4195629.97000 8.8552410e-04   54.05   239.60   10.50  PERIOD  ALL       00043872
  581879.27000 4195594.17000 8.0238180e-04   54.83   239.60    1.50  PERIOD  ALL       00043872
  581879.27000 4195594.18000 7.9043150e-04   54.83   239.60    4.50  PERIOD  ALL       00043872
  581879.27000 4195594.19000 7.7342490e-04   54.83   239.60    7.50  PERIOD  ALL       00043872
  581879.27000 4195594.20000 7.5104220e-04   54.83   239.60   10.50  PERIOD  ALL       00043872
  581864.16000 4195577.35000 7.5466450e-04   53.97   239.60    1.50  PERIOD  ALL       00043872
  581864.16000 4195577.36000 7.4518860e-04   53.97   239.60    4.50  PERIOD  ALL       00043872
  581864.16000 4195577.37000 7.3069460e-04   53.97   239.60    7.50  PERIOD  ALL       00043872
  581864.16000 4195577.38000 7.1114330e-04   53.97   239.60   10.50  PERIOD  ALL       00043872
  581837.33000 4195577.99000 7.6947540e-04   55.00   239.60    1.50  PERIOD  ALL       00043872
  581837.33000 4195578.00000 7.5885650e-04   55.00   239.60    4.50  PERIOD  ALL       00043872
  581837.33000 4195578.01000 7.4329400e-04   55.00   239.60    7.50  PERIOD  ALL       00043872
  581837.33000 4195578.02000 7.2249860e-04   55.00   239.60   10.50  PERIOD  ALL       00043872
  581836.69000 4195591.83000 8.1661030e-04   55.00   239.60    1.50  PERIOD  ALL       00043872
  581836.69000 4195591.84000 8.0499510e-04   55.00   239.60    4.50  PERIOD  ALL       00043872
  581836.69000 4195591.85000 7.8807260e-04   55.00   239.60    7.50  PERIOD  ALL       00043872
  581836.69000 4195591.86000 7.6555250e-04   55.00   239.60   10.50  PERIOD  ALL       00043872
  581842.86000 4195602.69000 8.5238730e-04   55.07   239.60    1.50  PERIOD  ALL       00043872
  581842.86000 4195602.70000 8.3981870e-04   55.07   239.60    4.50  PERIOD  ALL       00043872
  581842.86000 4195602.71000 8.2165830e-04   55.07   239.60    7.50  PERIOD  ALL       00043872
  581842.86000 4195602.72000 7.9761360e-04   55.07   239.60   10.50  PERIOD  ALL       00043872
  581843.08000 4195628.45000 9.5284760e-04   54.85   239.60    1.50  PERIOD  ALL       00043872
  581843.08000 4195628.46000 9.3824180e-04   54.85   239.60    4.50  PERIOD  ALL       00043872
  581843.08000 4195628.47000 9.1727580e-04   54.85   239.60    7.50  PERIOD  ALL       00043872
  581843.08000 4195628.48000 8.8965920e-04   54.85   239.60   10.50  PERIOD  ALL       00043872
  581848.83000 4195640.80000 1.0031820e-03   54.84   239.60    1.50  PERIOD  ALL       00043872
  581848.83000 4195640.81000 9.8732910e-04   54.84   239.60    4.50  PERIOD  ALL       00043872
  581848.83000 4195640.82000 9.6471470e-04   54.84   239.60    7.50  PERIOD  ALL       00043872
  581848.83000 4195640.83000 9.3504520e-04   54.84   239.60   10.50  PERIOD  ALL       00043872
  581853.37000 4195646.62000 1.0281340e-03   54.70   239.60    1.50  PERIOD  ALL       00043872
  581853.37000 4195646.63000 1.0118850e-03   54.69   239.60    4.50  PERIOD  ALL       00043872
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  581853.37000 4195646.65000 9.5814040e-04   54.69   239.60   10.50  PERIOD  ALL       00043872
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  581857.70000 4195646.70000 1.0123560e-03   54.41   239.60    4.50  PERIOD  ALL       00043872
  581857.70000 4195646.71000 9.8945560e-04   54.41   239.60    7.50  PERIOD  ALL       00043872
  581857.70000 4195646.72000 9.5926980e-04   54.41   239.60   10.50  PERIOD  ALL       00043872
  581865.39000 4195643.40000 1.0111230e-03   53.95   239.60    1.50  PERIOD  ALL       00043872
  581865.39000 4195643.41000 9.9744030e-04   53.95   239.60    4.50  PERIOD  ALL       00043872
  581865.39000 4195643.42000 9.7556390e-04   53.95   239.60    7.50  PERIOD  ALL       00043872
  581865.39000 4195643.43000 9.4655210e-04   53.95   239.60   10.50  PERIOD  ALL       00043872
  581868.76000 4195640.03000 9.9475390e-04   53.94   239.60    1.50  PERIOD  ALL       00043872
  581868.76000 4195640.04000 9.8131910e-04   53.94   239.60    4.50  PERIOD  ALL       00043872
  581868.76000 4195640.05000 9.5990270e-04   53.94   239.60    7.50  PERIOD  ALL       00043872
  581868.76000 4195640.06000 9.3145350e-04   53.94   239.60   10.50  PERIOD  ALL       00043872
  581872.12000 4195636.67000 9.7844440e-04   53.94   239.60    1.50  PERIOD  ALL       00043872
  581872.12000 4195636.68000 9.6523420e-04   53.94   239.60    4.50  PERIOD  ALL       00043872
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  581872.12000 4195636.70000 9.1636640e-04   53.94   239.60   10.50  PERIOD  ALL       00043872
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581875.49000 4195633.30000 9.6328760e-04    54.00   239.60     1.50  PERIOD  ALL       00043872
581875.49000 4195633.31000 9.4887200e-04    54.00   239.60     4.50  PERIOD  ALL       00043872
581875.49000 4195633.32000 9.2828730e-04    53.99   239.60     7.50  PERIOD  ALL       00043872
581875.49000 4195633.33000 9.0092000e-04    53.99   239.60    10.50  PERIOD  ALL       00043872
581878.90000 4195625.47000 9.2656060e-04    54.41   239.60     1.50  PERIOD  ALL       00043872
581878.90000 4195625.48000 9.1238550e-04    54.41   239.60     4.50  PERIOD  ALL       00043872
581878.90000 4195625.49000 8.9221650e-04    54.41   239.60     7.50  PERIOD  ALL       00043872
581878.90000 4195625.50000 8.6563760e-04    54.41   239.60    10.50  PERIOD  ALL       00043872
581878.95000 4195621.00000 9.0714400e-04    54.63   239.60     1.50  PERIOD  ALL       00043872
581878.95000 4195621.01000 8.9313860e-04    54.63   239.60     4.50  PERIOD  ALL       00043872
581878.95000 4195621.02000 8.7326990e-04    54.63   239.60     7.50  PERIOD  ALL       00043872
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581879.01000 4195616.53000 8.8810630e-04    54.85   239.60     1.50  PERIOD  ALL       00043872
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581879.06000 4195612.05000 8.7000900e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581879.06000 4195612.07000 8.5658500e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
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581879.11000 4195607.58000 8.5232170e-04    54.97   239.60     1.50  PERIOD  ALL       00043872
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581879.11000 4195607.60000 8.2054640e-04    54.97   239.60     7.50  PERIOD  ALL       00043872
581879.11000 4195607.61000 7.9612610e-04    54.97   239.60    10.50  PERIOD  ALL       00043872
581879.17000 4195603.11000 8.3526510e-04    54.95   239.60     1.50  PERIOD  ALL       00043872
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581879.17000 4195603.13000 8.0440190e-04    54.95   239.60     7.50  PERIOD  ALL       00043872
581879.17000 4195603.14000 7.8065660e-04    54.95   239.60    10.50  PERIOD  ALL       00043872
581879.22000 4195598.64000 8.1863590e-04    54.90   239.60     1.50  PERIOD  ALL       00043872
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581879.22000 4195598.67000 7.6566320e-04    54.90   239.60    10.50  PERIOD  ALL       00043872
581876.25000 4195590.81000 7.9189570e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
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581876.25000 4195590.83000 7.6339390e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
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581873.23000 4195587.44000 7.8256690e-04    54.65   239.60     1.50  PERIOD  ALL       00043872
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581873.23000 4195587.46000 7.5514320e-04    54.65   239.60     7.50  PERIOD  ALL       00043872
581873.23000 4195587.47000 7.3378710e-04    54.65   239.60    10.50  PERIOD  ALL       00043872
581870.20000 4195584.08000 7.7354910e-04    54.34   239.60     1.50  PERIOD  ALL       00043872
581870.20000 4195584.09000 7.6276500e-04    54.34   239.60     4.50  PERIOD  ALL       00043872
581870.20000 4195584.10000 7.4727630e-04    54.34   239.60     7.50  PERIOD  ALL       00043872
581870.20000 4195584.11000 7.2661270e-04    54.34   239.60    10.50  PERIOD  ALL       00043872
581867.18000 4195580.71000 7.6447030e-04    54.08   239.60     1.50  PERIOD  ALL       00043872
581867.18000 4195580.72000 7.5414590e-04    54.08   239.60     4.50  PERIOD  ALL       00043872
581867.18000 4195580.73000 7.3923380e-04    54.08   239.60     7.50  PERIOD  ALL       00043872
581867.18000 4195580.74000 7.1921570e-04    54.08   239.60    10.50  PERIOD  ALL       00043872
581859.69000 4195577.46000 7.5805130e-04    54.03   239.60     1.50  PERIOD  ALL       00043872
581859.69000 4195577.47000 7.4804980e-04    54.03   239.60     4.50  PERIOD  ALL       00043872
581859.69000 4195577.48000 7.3349680e-04    54.03   239.60     7.50  PERIOD  ALL       00043872
581859.69000 4195577.49000 7.1384440e-04    54.03   239.60    10.50  PERIOD  ALL       00043872
581855.22000 4195577.56000 7.6028020e-04    54.30   239.60     1.50  PERIOD  ALL       00043872
581855.22000 4195577.57000 7.5011530e-04    54.30   239.60     4.50  PERIOD  ALL       00043872
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581855.22000 4195577.59000 7.1534080e-04    54.30   239.60    10.50  PERIOD  ALL       00043872
581850.74000 4195577.67000 7.6251470e-04    54.55   239.60     1.50  PERIOD  ALL       00043872
581850.74000 4195577.68000 7.5218260e-04    54.55   239.60     4.50  PERIOD  ALL       00043872
581850.74000 4195577.69000 7.3709530e-04    54.55   239.60     7.50  PERIOD  ALL       00043872
581850.74000 4195577.70000 7.1687180e-04    54.55   239.60    10.50  PERIOD  ALL       00043872
581846.27000 4195577.78000 7.6476510e-04    54.76   239.60     1.50  PERIOD  ALL       00043872
581846.27000 4195577.79000 7.5429310e-04    54.76   239.60     4.50  PERIOD  ALL       00043872
581846.27000 4195577.80000 7.3900070e-04    54.76   239.60     7.50  PERIOD  ALL       00043872
581846.27000 4195577.81000 7.1851680e-04    54.76   239.60    10.50  PERIOD  ALL       00043872
581841.80000 4195577.88000 7.6706470e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581841.80000 4195577.89000 7.5650640e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581841.80000 4195577.90000 7.4103740e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581841.80000 4195577.91000 7.2037400e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581837.12000 4195582.60000 7.8488100e-04    55.00   239.60     1.50  PERIOD  ALL       00043872
```

```
581837.12000 4195582.61000 7.7395520e-04    55.00   239.60     4.50  PERIOD  ALL       00043872
581837.12000 4195582.62000 7.5794710e-04    55.00   239.60     7.50  PERIOD  ALL       00043872
581837.12000 4195582.63000 7.3658730e-04    55.00   239.60    10.50  PERIOD  ALL       00043872
581836.90000 4195587.22000 8.0063870e-04    54.99   239.60     1.50  PERIOD  ALL       00043872
581836.90000 4195587.23000 7.8939160e-04    54.99   239.60     4.50  PERIOD  ALL       00043872
581836.90000 4195587.24000 7.7295270e-04    54.99   239.60     7.50  PERIOD  ALL       00043872
581836.90000 4195587.25000 7.5102240e-04    54.99   239.60    10.50  PERIOD  ALL       00043872
581838.75000 4195595.45000 8.2832710e-04    55.02   239.60     1.50  PERIOD  ALL       00043872
581838.75000 4195595.46000 8.1640820e-04    55.02   239.60     4.50  PERIOD  ALL       00043872
581838.75000 4195595.47000 7.9908140e-04    55.02   239.60     7.50  PERIOD  ALL       00043872
581838.75000 4195595.48000 7.7606220e-04    55.02   239.60    10.50  PERIOD  ALL       00043872
581840.80000 4195599.07000 8.4025370e-04    55.04   239.60     1.50  PERIOD  ALL       00043872
581840.80000 4195599.08000 8.2801350e-04    55.04   239.60     4.50  PERIOD  ALL       00043872
581840.80000 4195599.09000 8.1028070e-04    55.04   239.60     7.50  PERIOD  ALL       00043872
581840.80000 4195599.10000 7.8677820e-04    55.04   239.60    10.50  PERIOD  ALL       00043872
581842.90000 4195606.98000 8.6824260e-04    55.07   239.60     1.50  PERIOD  ALL       00043872
581842.90000 4195606.99000 8.5530770e-04    55.07   239.60     4.50  PERIOD  ALL       00043872
581842.90000 4195607.00000 8.3665780e-04    55.07   239.60     7.50  PERIOD  ALL       00043872
581842.90000 4195607.01000 8.1202570e-04    55.07   239.60    10.50  PERIOD  ALL       00043872
581842.93000 4195611.28000 8.8451360e-04    55.04   239.60     1.50  PERIOD  ALL       00043872
581842.93000 4195611.29000 8.7124650e-04    55.04   239.60     4.50  PERIOD  ALL       00043872
581842.93000 4195611.30000 8.5213840e-04    55.04   239.60     7.50  PERIOD  ALL       00043872
581842.93000 4195611.31000 8.2691640e-04    55.04   239.60    10.50  PERIOD  ALL       00043872
581842.97000 4195615.57000 9.0103080e-04    55.02   239.60     1.50  PERIOD  ALL       00043872
581842.97000 4195615.58000 8.8740610e-04    55.02   239.60     4.50  PERIOD  ALL       00043872
581842.97000 4195615.59000 8.6781170e-04    55.02   239.60     7.50  PERIOD  ALL       00043872
581842.97000 4195615.60000 8.4196960e-04    55.02   239.60    10.50  PERIOD  ALL       00043872
581843.01000 4195619.86000 9.1797110e-04    54.96   239.60     1.50  PERIOD  ALL       00043872
581843.01000 4195619.87000 9.0403420e-04    54.96   239.60     4.50  PERIOD  ALL       00043872
581843.01000 4195619.88000 8.8400140e-04    54.96   239.60     7.50  PERIOD  ALL       00043872
581843.01000 4195619.89000 8.5759450e-04    54.96   239.60    10.50  PERIOD  ALL       00043872
581843.04000 4195624.16000 9.3526360e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581843.04000 4195624.17000 9.2097350e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581843.04000 4195624.18000 9.0046330e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581843.04000 4195624.19000 8.7344820e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581845.00000 4195632.57000 9.6932900e-04    54.83   239.60     1.50  PERIOD  ALL       00043872
581845.00000 4195632.58000 9.5433630e-04    54.83   239.60     4.50  PERIOD  ALL       00043872
581845.00000 4195632.59000 9.3285860e-04    54.83   239.60     7.50  PERIOD  ALL       00043872
581845.00000 4195632.60000 9.0458840e-04    54.83   239.60    10.50  PERIOD  ALL       00043872
581846.91000 4195636.68000 9.8610690e-04    54.82   239.60     1.50  PERIOD  ALL       00043872
581846.91000 4195636.69000 9.7071000e-04    54.82   239.60     4.50  PERIOD  ALL       00043872
581846.91000 4195636.70000 9.4869580e-04    54.82   239.60     7.50  PERIOD  ALL       00043872
581846.91000 4195636.71000 9.1976690e-04    54.82   239.60    10.50  PERIOD  ALL       00043872
581848.94000 4195643.67000 1.0157720e-03    54.82   239.60     1.50  PERIOD  ALL       00043872
581848.94000 4195643.68000 9.9966060e-04    54.82   239.60     4.50  PERIOD  ALL       00043872
581848.94000 4195643.70000 9.7671930e-04    54.82   239.60     7.50  PERIOD  ALL       00043872
581848.94000 4195643.71000 9.4659770e-04    54.82   239.60    10.50  PERIOD  ALL       00043872
```

Mitigated Non-Residential Buildout of A, C, D and E - On-Site Site C

HARP Project Summary Report 12/6/2022 3:13:33 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC5.2
Project Output Directory: C:\HARP2\PROJECTS\TWC5.2
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	13.83	0	1
SITE_B	9901	DieselExhPM	1	4.73	0	1
SITE_C	9901	DieselExhPM	1	0	0	1
SITE_D	9901	DieselExhPM	1	4.8	0	1
SITE_E	9901	DieselExhPM	1	2.77	0	1
BDWY	9901	DieselExhPM	1	2	0	1
MAIN	9901	DieselExhPM	1	2.5	0	1
CIVIC	9901	DieselExhPM	1	2	0	1
YGNO	9901	DieselExhPM	1	1.5	0	1
PARK	9901	DieselExhPM	1	2	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/1/2022 1:11:03 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC5.2\hra\TWC5.2_RES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC5.2\hra\TWC5.2_RES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 1:11:59 AM
RISK SCENARIO: NCChronic

LINE	REC	TYPE	X	Y	CANCER RISK
1	13	ALL	582507	4196131	5.0582000e-06
2	12	ALL	582503	4196130	5.0572000e-06
3	14	ALL	582512	4196132	5.0533000e-06
4	11	ALL	582498	4196128	5.0499000e-06
5	15	ALL	582517	4196134	5.0414000e-06
6	10	ALL	582493	4196127	5.0344000e-06
7	16	ALL	582522	4196135	5.0219000e-06
8	9	ALL	582489	4196126	5.0077000e-06
9	17	ALL	582526	4196136	4.9998000e-06
10	18	ALL	582531	4196137	4.9723000e-06

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/1/2022 4:03:30 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	13	ALL	582507	4196131	5.6883000e-03
2	12	ALL	582503	4196130	5.6872000e-03
3	14	ALL	582512	4196132	5.6828000e-03
4	11	ALL	582498	4196128	5.6789000e-03
5	15	ALL	582517	4196134	5.6694000e-03
6	10	ALL	582493	4196127	5.6616000e-03
7	16	ALL	582522	4196135	5.6474000e-03
8	9	ALL	582489	4196126	5.6315000e-03
9	17	ALL	582526	4196136	5.6226000e-03
10	18	ALL	582531	4196137	5.5917000e-03

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/01/22
* AERMET ( 14134):                                                                        01:09:58
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF    63 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  582465.02000 4196119.46000 2.7083260e-02   49.88    49.88     1.50  PERIOD  ALL       00043872
  582582.69000 4196151.50000 2.3636690e-02   51.21    51.21     1.50  PERIOD  ALL       00043872
  582591.67000 4196124.78000 1.0532740e-02   50.01    50.69     1.50  PERIOD  ALL       00043872
  582471.53000 4196093.98000 1.4634510e-02   49.18    49.18     1.50  PERIOD  ALL       00043872
  582469.73000 4196120.74000 2.6578100e-02   50.00    50.00     1.50  PERIOD  ALL       00043872
  582474.43000 4196122.02000 2.7326090e-02   50.12    50.12     1.50  PERIOD  ALL       00043872
  582479.14000 4196123.30000 2.7608380e-02   50.16    50.16     1.50  PERIOD  ALL       00043872
  582483.85000 4196124.59000 2.7921160e-02   50.20    50.20     1.50  PERIOD  ALL       00043872
  582488.55000 4196125.87000 2.8157470e-02   50.24    50.24     1.50  PERIOD  ALL       00043872
  582493.26000 4196127.15000 2.8307900e-02   50.28    50.28     1.50  PERIOD  ALL       00043872
  582497.97000 4196128.43000 2.8394700e-02   50.33    50.33     1.50  PERIOD  ALL       00043872
  582502.67000 4196129.71000 2.8435890e-02   50.38    50.38     1.50  PERIOD  ALL       00043872
  582507.38000 4196130.99000 2.8441400e-02   50.44    50.44     1.50  PERIOD  ALL       00043872
  582512.09000 4196132.28000 2.8413870e-02   50.49    50.49     1.50  PERIOD  ALL       00043872
  582516.79000 4196133.56000 2.8347020e-02   50.54    50.54     1.50  PERIOD  ALL       00043872
  582521.50000 4196134.84000 2.8237090e-02   50.58    50.58     1.50  PERIOD  ALL       00043872
  582526.21000 4196136.12000 2.8113190e-02   50.64    50.64     1.50  PERIOD  ALL       00043872
  582530.92000 4196137.40000 2.7958370e-02   50.69    50.69     1.50  PERIOD  ALL       00043872
  582535.62000 4196138.68000 2.7801050e-02   50.75    50.75     1.50  PERIOD  ALL       00043872
  582540.33000 4196139.97000 2.7630890e-02   50.81    50.81     1.50  PERIOD  ALL       00043872
  582545.04000 4196141.25000 2.7418030e-02   50.89    50.89     1.50  PERIOD  ALL       00043872
  582549.74000 4196142.53000 2.7127400e-02   50.96    50.96     1.50  PERIOD  ALL       00043872
  582554.45000 4196143.81000 2.6799490e-02   51.03    51.03     1.50  PERIOD  ALL       00043872
  582559.16000 4196145.09000 2.6404650e-02   51.08    51.08     1.50  PERIOD  ALL       00043872
  582563.86000 4196146.37000 2.5949230e-02   51.13    51.13     1.50  PERIOD  ALL       00043872
  582568.57000 4196147.66000 2.5435310e-02   51.16    51.16     1.50  PERIOD  ALL       00043872
  582573.28000 4196148.94000 2.4850750e-02   51.19    51.19     1.50  PERIOD  ALL       00043872
  582577.98000 4196150.22000 2.4257220e-02   51.24    51.24     1.50  PERIOD  ALL       00043872
  582584.19000 4196147.05000 1.9510390e-02   51.20    51.20     1.50  PERIOD  ALL       00043872
  582585.68000 4196142.59000 1.6637420e-02   51.15    51.15     1.50  PERIOD  ALL       00043872
  582587.18000 4196138.14000 1.4510330e-02   51.10    51.10     1.50  PERIOD  ALL       00043872
  582588.68000 4196133.69000 1.2894630e-02   50.78    50.78     1.50  PERIOD  ALL       00043872
  582590.17000 4196129.23000 1.1587830e-02   50.47    50.47     1.50  PERIOD  ALL       00043872
  582586.86000 4196123.55000 1.0657400e-02   50.19    50.69     1.50  PERIOD  ALL       00043872
  582582.06000 4196122.32000 1.0788430e-02   50.13    50.84     1.50  PERIOD  ALL       00043872
  582577.25000 4196121.08000 1.0905450e-02   50.08    50.96     1.50  PERIOD  ALL       00043872
  582572.45000 4196119.85000 1.1015510e-02   50.06    50.96     1.50  PERIOD  ALL       00043872
  582567.64000 4196118.62000 1.1123840e-02   50.05    51.02     1.50  PERIOD  ALL       00043872
  582562.84000 4196117.39000 1.1231310e-02   50.05    50.05     1.50  PERIOD  ALL       00043872
  582558.03000 4196116.16000 1.1342390e-02   50.05    50.05     1.50  PERIOD  ALL       00043872
  582553.23000 4196114.92000 1.1464460e-02   49.99    49.99     1.50  PERIOD  ALL       00043872
  582548.42000 4196113.69000 1.1598650e-02   49.90    50.30     1.50  PERIOD  ALL       00043872
  582543.61000 4196112.46000 1.1737920e-02   49.81    49.81     1.50  PERIOD  ALL       00043872
  582538.81000 4196111.23000 1.1879980e-02   49.73    50.32     1.50  PERIOD  ALL       00043872
  582534.00000 4196110.00000 1.2023350e-02   49.67    49.67     1.50  PERIOD  ALL       00043872
  582529.20000 4196108.76000 1.2167170e-02   49.62    49.62     1.50  PERIOD  ALL       00043872
  582524.39000 4196107.53000 1.2317050e-02   49.59    49.59     1.50  PERIOD  ALL       00043872
  582519.59000 4196106.30000 1.2468030e-02   49.59    49.59     1.50  PERIOD  ALL       00043872
  582514.78000 4196105.07000 1.2634200e-02   49.58    49.58     1.50  PERIOD  ALL       00043872
  582509.97000 4196103.84000 1.2834370e-02   49.50    49.50     1.50  PERIOD  ALL       00043872
  582505.17000 4196102.60000 1.3053390e-02   49.43    49.43     1.50  PERIOD  ALL       00043872
  582500.36000 4196101.37000 1.3299930e-02   49.36    49.36     1.50  PERIOD  ALL       00043872
  582495.56000 4196100.14000 1.3594970e-02   49.31    49.31     1.50  PERIOD  ALL       00043872
  582490.75000 4196098.91000 1.3958470e-02   49.29    49.29     1.50  PERIOD  ALL       00043872
  582485.95000 4196097.68000 1.4408500e-02   49.27    49.27     1.50  PERIOD  ALL       00043872
  582481.14000 4196096.44000 1.4956320e-02   49.27    49.27     1.50  PERIOD  ALL       00043872
  582476.34000 4196095.21000 1.4828060e-02   49.22    49.22     1.50  PERIOD  ALL       00043872
  582470.44000 4196098.23000 1.6152680e-02   49.32    49.32     1.50  PERIOD  ALL       00043872
  582469.36000 4196102.47000 1.7856890e-02   49.46    49.46     1.50  PERIOD  ALL       00043872
  582468.28000 4196106.72000 1.9967350e-02   49.58    49.58     1.50  PERIOD  ALL       00043872
```

```
582467.19000 4196110.97000 2.2273000e-02    49.68    49.68     1.50  PERIOD  ALL       00043872
582466.10000 4196115.21000 2.4643530e-02    49.78    49.78     1.50  PERIOD  ALL       00043872
582969.53000 4195797.56000 5.9761960e-04    38.59    38.59     1.50  PERIOD  ALL       00043872
```

Mitigated Residences on C- Non-Residential on A,B,D,E OFFSITE OVERALL (Worker)

HARP Project Summary Report 12/6/2022 5:48:12 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC5_OFFSITE
Project Output Directory: C:\HARP2\PROJECTS\TWC5_OFFSITE
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	6.91543	0	1
SITE_B	9901	DieselExhPM	1	2.36714	0	1
SITE_C	9901	DieselExhPM	1	16.92	0	1
SITE_D	9901	DieselExhPM	1	2.40096	0	1
SITE_E	9901	DieselExhPM	1	1.38647	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

```
HARP2 - HRACalc (dated 22118) 12/6/2022 5:57:01 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

**********
EXPOSURE DURATION PARAMETERS FOR CANCER
**Exposure duration are only adjusted for cancer assessments**

**********
PATHWAYS ENABLED

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

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

**********
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

**Fraction at time at home**
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC5_OFFSITE\hra\TWC5_OFFSITE_CHRONIC_NCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\HARP2\PROJECTS\TWC5_OFFSITE\hra\TWC5_OFFSITE_CHRONIC_NCChronicRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 5:57:21 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	2735	ALL	582592	4196125	1.7465000e-02
2	2734	ALL	582583	4196152	1.6177000e-02
3	688	ALL	582560	4196110	1.4924000e-02
4	696	ALL	582600	4196130	1.4823000e-02
5	2739	ALL	582582	4196154	1.3896000e-02
6	689	ALL	582580	4196110	1.1279000e-02
7	701	ALL	582600	4196150	1.1235000e-02
8	681	ALL	582500	4196090	9.1433000e-03
9	690	ALL	582600	4196110	8.6338000e-03
10	682	ALL	582520	4196090	8.6230000e-03

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:47:19
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF  2747 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS    NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ _________
  582033.26000 4196289.55000 2.7875060e-04   44.86   239.60     1.50  PERIOD  ALL       00043872
  582098.16000 4196263.48000 4.2648010e-04   50.22   198.92     1.50  PERIOD  ALL       00043872
  582100.26000 4196247.28000 4.5213440e-04   50.77   198.92     1.50  PERIOD  ALL       00043872
  582096.16000 4196234.19000 4.6551060e-04   50.61   198.92     1.50  PERIOD  ALL       00043872
  582034.59000 4196258.60000 3.0631660e-04   46.16   239.60     1.50  PERIOD  ALL       00043872
  582037.90000 4196287.69000 2.8674630e-04   45.36   239.60     1.50  PERIOD  ALL       00043872
  582042.53000 4196285.83000 2.9347010e-04   46.24   239.60     1.50  PERIOD  ALL       00043872
  582047.17000 4196283.96000 2.9892870e-04   47.79   239.60     1.50  PERIOD  ALL       00043872
  582051.80000 4196282.10000 3.0466760e-04   48.91   198.92     1.50  PERIOD  ALL       00043872
  582056.44000 4196280.24000 3.1033240e-04   49.85   198.92     1.50  PERIOD  ALL       00043872
  582061.07000 4196278.38000 3.1843870e-04   50.18   198.92     1.50  PERIOD  ALL       00043872
  582065.71000 4196276.51000 3.2791550e-04   50.40   198.92     1.50  PERIOD  ALL       00043872
  582070.35000 4196274.65000 3.3857980e-04   50.50   198.92     1.50  PERIOD  ALL       00043872
  582074.98000 4196272.79000 3.4999390e-04   50.58   198.92     1.50  PERIOD  ALL       00043872
  582079.62000 4196270.93000 3.6197800e-04   50.68   198.92     1.50  PERIOD  ALL       00043872
  582084.25000 4196269.07000 3.7558400e-04   50.66   198.92     1.50  PERIOD  ALL       00043872
  582088.89000 4196267.20000 3.9003950e-04   50.66   198.92     1.50  PERIOD  ALL       00043872
  582093.52000 4196265.34000 4.0727030e-04   50.46   198.92     1.50  PERIOD  ALL       00043872
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  582099.21000 4196255.38000 4.3630670e-04   50.70   198.92     1.50  PERIOD  ALL       00043872
  582099.73000 4196251.33000 4.4408760e-04   50.72   198.92     1.50  PERIOD  ALL       00043872
  582098.89000 4196242.92000 4.5528230e-04   50.78   198.92     1.50  PERIOD  ALL       00043872
  582097.53000 4196238.55000 4.5994400e-04   50.71   198.92     1.50  PERIOD  ALL       00043872
  582091.76000 4196235.93000 4.4578240e-04   50.82   198.92     1.50  PERIOD  ALL       00043872
  582087.36000 4196237.68000 4.2858370e-04   50.90   198.92     1.50  PERIOD  ALL       00043872
  582082.97000 4196239.42000 4.1296340e-04   50.93   198.92     1.50  PERIOD  ALL       00043872
  582078.57000 4196241.16000 3.9851880e-04   50.93   198.92     1.50  PERIOD  ALL       00043872
  582074.17000 4196242.91000 3.8493010e-04   50.93   198.92     1.50  PERIOD  ALL       00043872
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  582065.38000 4196246.39000 3.6071040e-04   50.83   198.92     1.50  PERIOD  ALL       00043872
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  581956.94000 4196148.43000 3.8893950e-04   50.82   239.60     1.50  PERIOD  ALL       00043872
  581952.97000 4196130.72000 4.2804140e-04   50.79   239.60     1.50  PERIOD  ALL       00043872
  581943.39000 4196122.05000 4.3008950e-04   51.57   239.60     1.50  PERIOD  ALL       00043872
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  581919.00000 4196090.07000 4.5266380e-04   53.63   239.60     1.50  PERIOD  ALL       00043872
  581946.86000 4196178.38000 3.0823190e-04   51.06   239.60     1.50  PERIOD  ALL       00043872
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  581955.95000 4196144.00000 3.9873690e-04   50.74   239.60     1.50  PERIOD  ALL       00043872
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581935.13000 4196107.11000 4.5267580e-04    51.69   239.60     1.50  PERIOD  ALL       00043872
581931.90000 4196103.70000 4.5403310e-04    51.97   239.60     1.50  PERIOD  ALL       00043872
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581933.39000 4196146.03000 3.4802710e-04    53.27   239.60     1.50  PERIOD  ALL       00043872
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581936.98000 4196160.01000 3.2737620e-04    52.67   239.60     1.50  PERIOD  ALL       00043872
581938.18000 4196164.68000 3.1957590e-04    52.65   239.60     1.50  PERIOD  ALL       00043872
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581931.10000 4195560.75000 1.8678530e-04    53.84   198.92     1.50  PERIOD  ALL       00043872
581947.84000 4195596.69000 2.1899540e-04    52.28   198.92     1.50  PERIOD  ALL       00043872
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581959.96000 4195605.26000 2.2788180e-04    51.29   198.92     1.50  PERIOD  ALL       00043872
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581976.94000 4195612.19000 2.3507700e-04    50.38   198.92     1.50  PERIOD  ALL       00043872
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581985.43000 4195615.65000 2.3893450e-04    49.85   198.92     1.50  PERIOD  ALL       00043872
581989.68000 4195617.38000 2.4092960e-04    49.58   198.92     1.50  PERIOD  ALL       00043872
581998.41000 4195616.81000 2.3951860e-04    49.47   198.92     1.50  PERIOD  ALL       00043872
582002.91000 4195618.50000 2.4134280e-04    49.29   198.92     1.50  PERIOD  ALL       00043872
582007.40000 4195620.19000 2.4312890e-04    49.16   198.92     1.50  PERIOD  ALL       00043872
582011.89000 4195621.88000 2.4498200e-04    49.01   198.92     1.50  PERIOD  ALL       00043872
582016.38000 4195623.56000 2.4683690e-04    48.88   198.92     1.50  PERIOD  ALL       00043872
582020.88000 4195625.25000 2.4863090e-04    48.79   198.92     1.50  PERIOD  ALL       00043872
582025.37000 4195626.94000 2.5043190e-04    48.75   198.92     1.50  PERIOD  ALL       00043872
582029.88000 4195623.71000 2.4549720e-04    48.77   198.92     1.50  PERIOD  ALL       00043872
582029.90000 4195618.80000 2.3892540e-04    48.81   198.92     1.50  PERIOD  ALL       00043872
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582029.97000 4195599.14000 2.1409740e-04    49.13   198.92     1.50  PERIOD  ALL       00043872
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582030.01000 4195589.31000 2.0244680e-04    49.52   198.92     1.50  PERIOD  ALL       00043872
582030.02000 4195584.40000 1.9682360e-04    49.76   198.92     1.50  PERIOD  ALL       00043872
582030.04000 4195579.48000 1.9134340e-04    50.02   198.92     1.50  PERIOD  ALL       00043872
582030.06000 4195574.57000 1.8634080e-04    50.01   198.92     1.50  PERIOD  ALL       00043872
582030.08000 4195569.65000 1.8174340e-04    49.76   198.92     1.50  PERIOD  ALL       00043872
582030.10000 4195564.74000 1.7734370e-04    49.47   198.92     1.50  PERIOD  ALL       00043872
582030.12000 4195559.82000 1.7309770e-04    49.13   198.92     1.50  PERIOD  ALL       00043872
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582025.39000 4195545.04000 1.6142870e-04    48.65   198.92     1.50  PERIOD  ALL       00043872
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582011.05000 4195544.90000 1.6331250e-04    49.44   198.92     1.50  PERIOD  ALL       00043872
582006.27000 4195544.85000 1.6394020e-04    49.65   198.92     1.50  PERIOD  ALL       00043872
582001.49000 4195544.81000 1.6454860e-04    49.89   198.92     1.50  PERIOD  ALL       00043872
581996.71000 4195544.76000 1.6510840e-04    50.19   198.92     1.50  PERIOD  ALL       00043872
581991.93000 4195544.72000 1.6563490e-04    50.53   198.92     1.50  PERIOD  ALL       00043872
581987.16000 4195544.67000 1.6623710e-04    50.79   198.92     1.50  PERIOD  ALL       00043872
581982.38000 4195544.63000 1.6683730e-04    51.03   198.92     1.50  PERIOD  ALL       00043872
581977.60000 4195544.58000 1.6741270e-04    51.29   198.92     1.50  PERIOD  ALL       00043872
581972.82000 4195544.54000 1.6798850e-04    51.56   198.92     1.50  PERIOD  ALL       00043872
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581963.26000 4195544.45000 1.6908260e-04    52.08   198.92     1.50  PERIOD  ALL       00043872
581958.48000 4195544.40000 1.6963450e-04    52.28   198.92     1.50  PERIOD  ALL       00043872
581953.70000 4195544.36000 1.7014940e-04    52.56   198.92     1.50  PERIOD  ALL       00043872
581948.61000 4195548.69000 1.7353760e-04    52.97   198.92     1.50  PERIOD  ALL       00043872
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581933.19000 4195565.24000 1.9047780e-04    53.80   198.92     1.50  PERIOD  ALL       00043872
581935.29000 4195569.74000 1.9434330e-04    53.62   198.92     1.50  PERIOD  ALL       00043872
581937.38000 4195574.23000 1.9829880e-04    53.44   198.92     1.50  PERIOD  ALL       00043872
581939.47000 4195578.72000 2.0073840e-04    53.24   198.92     1.50  PERIOD  ALL       00043872
581941.56000 4195583.21000 2.0493150e-04    53.02   198.92     1.50  PERIOD  ALL       00043872
581943.66000 4195587.71000 2.1005560e-04    52.81   198.92     1.50  PERIOD  ALL       00043872
581945.75000 4195592.20000 2.1442960e-04    52.56   198.92     1.50  PERIOD  ALL       00043872
582105.22000 4195523.70000 1.3308460e-04    48.23   198.92     1.50  PERIOD  ALL       00043872
582123.65000 4195523.34000 1.3091430e-04    47.05   198.92     1.50  PERIOD  ALL       00043872
582123.83000 4195483.04000 1.0741380e-04    50.44   198.92     1.50  PERIOD  ALL       00043872
582105.22000 4195482.86000 1.0801420e-04    51.62   198.92     1.50  PERIOD  ALL       00043872
582109.83000 4195523.61000 1.3255340e-04    47.83   198.92     1.50  PERIOD  ALL       00043872
582114.44000 4195523.52000 1.3200870e-04    47.48   198.92     1.50  PERIOD  ALL       00043872
582119.04000 4195523.43000 1.3145250e-04    47.28   198.92     1.50  PERIOD  ALL       00043872
582123.67000 4195518.86000 1.2811850e-04    47.42   198.92     1.50  PERIOD  ALL       00043872
582123.69000 4195514.38000 1.2537630e-04    47.89   198.92     1.50  PERIOD  ALL       00043872
582123.71000 4195509.91000 1.2264240e-04    48.50   198.92     1.50  PERIOD  ALL       00043872
582123.73000 4195505.43000 1.1976430e-04    49.09   198.92     1.50  PERIOD  ALL       00043872
582123.75000 4195500.95000 1.1688690e-04    49.62   198.92     1.50  PERIOD  ALL       00043872
582123.77000 4195496.47000 1.1408810e-04    50.16   198.92     1.50  PERIOD  ALL       00043872
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582500.00000 4196190.00000 1.5620310e-02    50.90    50.90     1.50  PERIOD  ALL       00043872
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582580.00000 4196190.00000 2.2742140e-02    50.77    50.77     1.50  PERIOD  ALL       00043872
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582240.00000 4196210.00000 1.9386720e-03    45.00   192.37     1.50  PERIOD  ALL       00043872
582260.00000 4196210.00000 2.5135070e-03    45.11   192.37     1.50  PERIOD  ALL       00043872
582360.00000 4196210.00000 5.7718590e-03    48.23    48.23     1.50  PERIOD  ALL       00043872
582380.00000 4196210.00000 5.6568380e-03    48.85    48.85     1.50  PERIOD  ALL       00043872
582400.00000 4196210.00000 6.2092130e-03    49.60    49.60     1.50  PERIOD  ALL       00043872
582420.00000 4196210.00000 7.7201820e-03    50.01    50.01     1.50  PERIOD  ALL       00043872
582580.00000 4196210.00000 1.6251170e-02    50.36    50.36     1.50  PERIOD  ALL       00043872
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582200.00000 4196230.00000 1.4643910e-03    45.28   198.92     1.50  PERIOD  ALL       00043872
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582240.00000 4196230.00000 1.4655240e-03    44.50   192.37     1.50  PERIOD  ALL       00043872
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582300.00000 4196230.00000 3.5017520e-03    46.73    46.73     1.50  PERIOD  ALL       00043872
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582340.00000 4196230.00000 3.9081800e-03    47.04    47.04     1.50  PERIOD  ALL       00043872
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582360.00000 4196250.00000 2.8036620e-03    46.15    46.15     1.50  PERIOD  ALL       00043872
582380.00000 4196250.00000 3.0044840e-03    47.09    47.09     1.50  PERIOD  ALL       00043872
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582440.00000 4196250.00000 4.7739800e-03    49.87    49.87     1.50  PERIOD  ALL       00043872
582460.00000 4196250.00000 5.8879220e-03    50.16    50.16     1.50  PERIOD  ALL       00043872
582480.00000 4196250.00000 7.7691960e-03    50.69    50.69     1.50  PERIOD  ALL       00043872
582560.00000 4196250.00000 1.2851440e-02    50.66    50.66     1.50  PERIOD  ALL       00043872
582580.00000 4196250.00000 9.8052700e-03    49.59    49.59     1.50  PERIOD  ALL       00043872
582600.00000 4196250.00000 8.2136900e-03    48.65    48.65     1.50  PERIOD  ALL       00043872
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582240.00000 4196270.00000 9.6121590e-04    43.47   192.37     1.50  PERIOD  ALL       00043872
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582280.00000 4196270.00000 1.3159060e-03    44.37    44.37     1.50  PERIOD  ALL       00043872
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582320.00000 4196270.00000 1.7412690e-03    45.41    45.41     1.50  PERIOD  ALL       00043872
582340.00000 4196270.00000 1.9409830e-03    45.48    45.48     1.50  PERIOD  ALL       00043872
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582480.00000 4196270.00000 4.4612950e-03    50.50    50.50     1.50  PERIOD  ALL       00043872
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582540.00000 4196270.00000 7.3582380e-03    50.83    50.83     1.50  PERIOD  ALL       00043872
582560.00000 4196270.00000 7.4891760e-03    51.06    51.06     1.50  PERIOD  ALL       00043872
582580.00000 4196270.00000 6.8832090e-03    49.62    50.94     1.50  PERIOD  ALL       00043872
582600.00000 4196270.00000 6.1938140e-03    47.76    50.94     1.50  PERIOD  ALL       00043872
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582020.00000 4195850.00000 6.9432280e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4195850.00000 7.1646420e-04    53.18   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4195850.00000 7.3704360e-04    53.43   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4195850.00000 7.5755050e-04    53.49   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195850.00000 7.8364370e-04    52.87   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4195850.00000 8.1213400e-04    52.61   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195850.00000 8.3977110e-04    52.89   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195850.00000 8.9526570e-04    51.72   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195850.00000 9.8217380e-04    50.42   198.92     1.50  PERIOD  ALL       00043872
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582220.00000 4195850.00000 1.4054940e-03    50.29   198.92     1.50  PERIOD  ALL       00043872
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582280.00000 4195850.00000 1.9618540e-03    49.92   198.92     1.50  PERIOD  ALL       00043872
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582460.00000 4195850.00000 1.3828640e-03    46.45    46.45     1.50  PERIOD  ALL       00043872
582480.00000 4195850.00000 1.5123560e-03    45.85    45.85     1.50  PERIOD  ALL       00043872
582500.00000 4195850.00000 1.5462950e-03    43.45    45.91     1.50  PERIOD  ALL       00043872
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582540.00000 4195850.00000 1.7573470e-03    42.21    42.21     1.50  PERIOD  ALL       00043872
582560.00000 4195850.00000 1.5354330e-03    41.80    41.80     1.50  PERIOD  ALL       00043872
582580.00000 4195850.00000 1.4720040e-03    41.77    41.77     1.50  PERIOD  ALL       00043872
582600.00000 4195850.00000 1.4927780e-03    41.65    41.65     1.50  PERIOD  ALL       00043872
582620.00000 4195850.00000 1.5664790e-03    42.02    42.02     1.50  PERIOD  ALL       00043872
582640.00000 4195850.00000 1.4884570e-03    42.57    42.57     1.50  PERIOD  ALL       00043872
582660.00000 4195850.00000 1.3399500e-03    43.43    43.43     1.50  PERIOD  ALL       00043872
582680.00000 4195850.00000 1.3425760e-03    44.38    44.38     1.50  PERIOD  ALL       00043872
582700.00000 4195850.00000 1.4585930e-03    44.84    44.84     1.50  PERIOD  ALL       00043872
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582740.00000 4195850.00000 1.3698430e-03    44.50    44.50     1.50  PERIOD  ALL       00043872
582760.00000 4195850.00000 1.2636180e-03    44.46    44.46     1.50  PERIOD  ALL       00043872
582780.00000 4195850.00000 1.1922480e-03    44.75    44.75     1.50  PERIOD  ALL       00043872
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582280.00000 4195870.00000 1.7018330e-03    49.79   198.92     1.50  PERIOD  ALL       00043872
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582580.00000 4195870.00000 1.5820830e-03    41.27    41.27     1.50  PERIOD  ALL       00043872
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582740.00000 4195870.00000 1.6365200e-03    44.42    44.42     1.50  PERIOD  ALL       00043872
582760.00000 4195870.00000 1.8833890e-03    43.74    43.74     1.50  PERIOD  ALL       00043872
582780.00000 4195870.00000 1.6426490e-03    43.39    44.44     1.50  PERIOD  ALL       00043872
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582100.00000 4195890.00000 9.6711940e-04    52.42   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4195890.00000 1.0517320e-03    52.19   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195890.00000 1.1215000e-03    50.90   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195890.00000 1.2365210e-03    49.35   198.92     1.50  PERIOD  ALL       00043872
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582220.00000 4195890.00000 1.4982180e-03    49.81   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4195890.00000 1.5231890e-03    49.21   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4195890.00000 1.9057370e-03    49.72   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195890.00000 1.7401630e-03    49.50   198.92     1.50  PERIOD  ALL       00043872
582300.00000 4195890.00000 1.7431390e-03    50.04   192.37     1.50  PERIOD  ALL       00043872
582320.00000 4195890.00000 1.6869160e-03    50.43   192.37     1.50  PERIOD  ALL       00043872
582340.00000 4195890.00000 1.4802260e-03    50.56   192.37     1.50  PERIOD  ALL       00043872
582360.00000 4195890.00000 1.4779920e-03    50.42   192.37     1.50  PERIOD  ALL       00043872
582380.00000 4195890.00000 1.4657440e-03    50.00   192.37     1.50  PERIOD  ALL       00043872
582400.00000 4195890.00000 1.4686290e-03    49.31    49.31     1.50  PERIOD  ALL       00043872
582420.00000 4195890.00000 1.4980850e-03    48.32    48.32     1.50  PERIOD  ALL       00043872
582440.00000 4195890.00000 1.5434620e-03    47.20    47.20     1.50  PERIOD  ALL       00043872
582460.00000 4195890.00000 1.6465840e-03    46.09    46.09     1.50  PERIOD  ALL       00043872
582480.00000 4195890.00000 1.8955000e-03    44.92    44.92     1.50  PERIOD  ALL       00043872
582500.00000 4195890.00000 1.7019950e-03    43.78    43.78     1.50  PERIOD  ALL       00043872
582520.00000 4195890.00000 2.4621770e-03    42.83    42.83     1.50  PERIOD  ALL       00043872
582540.00000 4195890.00000 1.9870160e-03    42.08    42.08     1.50  PERIOD  ALL       00043872
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582580.00000 4195890.00000 1.6813510e-03    41.23    41.23     1.50  PERIOD  ALL       00043872
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582640.00000 4195890.00000 1.6865810e-03    42.95    42.95     1.50  PERIOD  ALL       00043872
582660.00000 4195890.00000 1.8688490e-03    43.98    43.98     1.50  PERIOD  ALL       00043872
582680.00000 4195890.00000 1.9060620e-03    44.60    44.60     1.50  PERIOD  ALL       00043872
582700.00000 4195890.00000 1.9225210e-03    44.89    44.89     1.50  PERIOD  ALL       00043872
582720.00000 4195890.00000 1.9384250e-03    44.66    44.66     1.50  PERIOD  ALL       00043872
582740.00000 4195890.00000 1.8588420e-03    44.03    44.03     1.50  PERIOD  ALL       00043872
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582060.00000 4195910.00000 9.7904030e-04    51.55   198.92     1.50  PERIOD  ALL       00043872
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582100.00000 4195910.00000 1.0729860e-03    52.33   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4195910.00000 1.1208080e-03    52.62   198.92     1.50  PERIOD  ALL       00043872
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582220.00000 4195910.00000 1.5031760e-03    49.13   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4195910.00000 1.9122770e-03    48.87   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4195910.00000 1.9266070e-03    49.72   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195910.00000 1.7362650e-03    49.77   198.92     1.50  PERIOD  ALL       00043872
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582320.00000 4195910.00000 1.6257290e-03    50.13   192.37     1.50  PERIOD  ALL       00043872
582340.00000 4195910.00000 1.6175260e-03    49.97   192.37     1.50  PERIOD  ALL       00043872
582360.00000 4195910.00000 1.5946390e-03    50.10   192.37     1.50  PERIOD  ALL       00043872
582380.00000 4195910.00000 1.5779090e-03    49.98   192.37     1.50  PERIOD  ALL       00043872
582400.00000 4195910.00000 1.5711100e-03    49.81    49.81     1.50  PERIOD  ALL       00043872
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582440.00000 4195910.00000 1.6792010e-03    47.23    47.23     1.50  PERIOD  ALL       00043872
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582480.00000 4195910.00000 2.0958150e-03    45.20    46.45     1.50  PERIOD  ALL       00043872
582500.00000 4195910.00000 2.0357780e-03    43.73    43.73     1.50  PERIOD  ALL       00043872
582520.00000 4195910.00000 2.5446460e-03    43.49    43.49     1.50  PERIOD  ALL       00043872
582540.00000 4195910.00000 2.1445100e-03    43.04    43.04     1.50  PERIOD  ALL       00043872
582560.00000 4195910.00000 1.9410950e-03    42.54    42.54     1.50  PERIOD  ALL       00043872
582580.00000 4195910.00000 1.8135900e-03    42.44    42.44     1.50  PERIOD  ALL       00043872
582600.00000 4195910.00000 1.7364040e-03    42.47    42.47     1.50  PERIOD  ALL       00043872
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582640.00000 4195910.00000 1.6915080e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
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582140.00000 4195930.00000 1.3453500e-03    50.28   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195930.00000 1.4378920e-03    50.03   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195930.00000 1.5949860e-03    48.76   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4195930.00000 1.8893250e-03    47.65   198.92     1.50  PERIOD  ALL       00043872
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582260.00000 4195930.00000 2.0602040e-03    49.37   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195930.00000 1.8793820e-03    49.94   198.92     1.50  PERIOD  ALL       00043872
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582380.00000 4195930.00000 1.6673840e-03    49.44   192.37     1.50  PERIOD  ALL       00043872
582400.00000 4195930.00000 1.6210330e-03    50.09    50.09     1.50  PERIOD  ALL       00043872
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582480.00000 4195930.00000 2.1560050e-03    45.22    46.49     1.50  PERIOD  ALL       00043872
582500.00000 4195930.00000 1.8345490e-03    44.19    44.19     1.50  PERIOD  ALL       00043872
582520.00000 4195930.00000 2.3721820e-03    44.06    44.06     1.50  PERIOD  ALL       00043872
582540.00000 4195930.00000 2.0183720e-03    43.77    43.77     1.50  PERIOD  ALL       00043872
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582580.00000 4195930.00000 1.7797970e-03    43.05    43.05     1.50  PERIOD  ALL       00043872
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582620.00000 4195930.00000 1.7573220e-03    43.10    43.10     1.50  PERIOD  ALL       00043872
582640.00000 4195930.00000 1.7905200e-03    43.22    43.22     1.50  PERIOD  ALL       00043872
582660.00000 4195930.00000 1.8432090e-03    43.82    43.82     1.50  PERIOD  ALL       00043872
582680.00000 4195930.00000 1.9229670e-03    43.88    43.88     1.50  PERIOD  ALL       00043872
582700.00000 4195930.00000 2.0450920e-03    43.94    43.94     1.50  PERIOD  ALL       00043872
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582740.00000 4195930.00000 2.2514460e-03    43.35    43.35     1.50  PERIOD  ALL       00043872
582760.00000 4195930.00000 2.5544170e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
582780.00000 4195930.00000 2.5628180e-03    42.27    42.27     1.50  PERIOD  ALL       00043872
582800.00000 4195930.00000 2.3112750e-03    41.22    41.22     1.50  PERIOD  ALL       00043872
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582040.00000 4195950.00000 1.0622950e-03    51.92   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4195950.00000 1.1513940e-03    50.60   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4195950.00000 1.2388700e-03    50.23   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195950.00000 1.3236620e-03    50.65   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4195950.00000 1.4181640e-03    50.10   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195950.00000 1.5309490e-03    48.65   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195950.00000 1.6457010e-03    48.93   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195950.00000 1.8317240e-03    48.08   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4195950.00000 2.1753460e-03    47.58   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4195950.00000 1.9747220e-03    48.05   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4195950.00000 2.6327130e-03    48.41   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4195950.00000 2.2782600e-03    48.85   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195950.00000 2.1292060e-03    49.76   192.37     1.50  PERIOD  ALL       00043872
582300.00000 4195950.00000 2.0537540e-03    50.42   192.37     1.50  PERIOD  ALL       00043872
582320.00000 4195950.00000 2.0203980e-03    50.55   192.37     1.50  PERIOD  ALL       00043872
582340.00000 4195950.00000 2.0129220e-03    49.96   192.37     1.50  PERIOD  ALL       00043872
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582380.00000 4195950.00000 2.0094430e-03    47.88   192.37     1.50  PERIOD  ALL       00043872
582400.00000 4195950.00000 1.9847560e-03    47.15    50.10     1.50  PERIOD  ALL       00043872
582420.00000 4195950.00000 1.9729830e-03    46.76    50.10     1.50  PERIOD  ALL       00043872
582440.00000 4195950.00000 1.9969540e-03    46.24    47.41     1.50  PERIOD  ALL       00043872
582460.00000 4195950.00000 2.1032340e-03    45.87    45.87     1.50  PERIOD  ALL       00043872
582480.00000 4195950.00000 2.2225650e-03    44.98    44.98     1.50  PERIOD  ALL       00043872
582500.00000 4195950.00000 2.2080450e-03    44.72    44.72     1.50  PERIOD  ALL       00043872
582520.00000 4195950.00000 2.4655400e-03    44.56    44.56     1.50  PERIOD  ALL       00043872
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582560.00000 4195950.00000 2.0191120e-03    43.60    47.69     1.50  PERIOD  ALL       00043872
582580.00000 4195950.00000 1.9729890e-03    44.11    47.69     1.50  PERIOD  ALL       00043872
582600.00000 4195950.00000 1.9766920e-03    43.60    47.67     1.50  PERIOD  ALL       00043872
582620.00000 4195950.00000 2.0141170e-03    43.40    47.95     1.50  PERIOD  ALL       00043872
582640.00000 4195950.00000 2.0727430e-03    43.62    43.62     1.50  PERIOD  ALL       00043872
582660.00000 4195950.00000 2.1445360e-03    43.63    43.63     1.50  PERIOD  ALL       00043872
582680.00000 4195950.00000 2.2269400e-03    43.72    43.72     1.50  PERIOD  ALL       00043872
582700.00000 4195950.00000 2.3346740e-03    43.70    43.70     1.50  PERIOD  ALL       00043872
582720.00000 4195950.00000 2.5308170e-03    43.59    43.59     1.50  PERIOD  ALL       00043872
582740.00000 4195950.00000 2.4907170e-03    43.24    43.24     1.50  PERIOD  ALL       00043872
582760.00000 4195950.00000 2.5357350e-03    43.23    43.23     1.50  PERIOD  ALL       00043872
582780.00000 4195950.00000 2.6824440e-03    43.19    43.19     1.50  PERIOD  ALL       00043872
582800.00000 4195950.00000 2.4283070e-03    41.72    41.72     1.50  PERIOD  ALL       00043872
582000.00000 4195970.00000 9.4218690e-04    50.10   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4195970.00000 1.0258900e-03    51.00   198.92     1.50  PERIOD  ALL       00043872
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582060.00000 4195970.00000 1.2297410e-03    50.10   198.92     1.50  PERIOD  ALL       00043872
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582100.00000 4195970.00000 1.4639060e-03    49.07   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4195970.00000 1.5906440e-03    48.61   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195970.00000 1.7266420e-03    48.24   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195970.00000 1.8849020e-03    47.92   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195970.00000 2.1075760e-03    47.51   198.92     1.50  PERIOD  ALL       00043872
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582260.00000 4195970.00000 2.5756890e-03    48.84   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195970.00000 2.4654910e-03    50.20   192.37     1.50  PERIOD  ALL       00043872
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582320.00000 4195970.00000 2.4611540e-03    50.52   192.37     1.50  PERIOD  ALL       00043872
582340.00000 4195970.00000 2.4981790e-03    49.93   192.37     1.50  PERIOD  ALL       00043872
582360.00000 4195970.00000 2.5141630e-03    49.66   192.37     1.50  PERIOD  ALL       00043872
582380.00000 4195970.00000 2.5514240e-03    48.33    49.47     1.50  PERIOD  ALL       00043872
582400.00000 4195970.00000 2.5235440e-03    47.04    47.04     1.50  PERIOD  ALL       00043872
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582480.00000 4195970.00000 2.4672280e-03    45.49    45.49     1.50  PERIOD  ALL       00043872
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582540.00000 4195970.00000 2.4667340e-03    45.50    45.90     1.50  PERIOD  ALL       00043872
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582580.00000 4195970.00000 2.3585350e-03    46.13    47.69     1.50  PERIOD  ALL       00043872
582600.00000 4195970.00000 2.3967330e-03    44.86    47.97     1.50  PERIOD  ALL       00043872
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582680.00000 4195970.00000 2.6904300e-03    43.63    43.63     1.50  PERIOD  ALL       00043872
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582760.00000 4195970.00000 2.8237550e-03    43.08    43.08     1.50  PERIOD  ALL       00043872
582780.00000 4195970.00000 2.9969160e-03    42.92    42.92     1.50  PERIOD  ALL       00043872
582800.00000 4195970.00000 2.6234300e-03    42.09    42.09     1.50  PERIOD  ALL       00043872
582000.00000 4195990.00000 9.5491660e-04    49.10   239.60     1.50  PERIOD  ALL       00043872
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582060.00000 4195990.00000 1.2900630e-03    49.84   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4195990.00000 1.4343310e-03    49.20   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4195990.00000 1.5920040e-03    48.61   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4195990.00000 1.7623130e-03    48.22   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4195990.00000 1.9464130e-03    48.02   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4195990.00000 2.1552880e-03    47.73   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4195990.00000 2.4330280e-03    47.51   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4195990.00000 2.4636600e-03    47.00   198.92     1.50  PERIOD  ALL       00043872
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582240.00000 4195990.00000 3.1770010e-03    47.88   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4195990.00000 3.0002000e-03    48.82   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4195990.00000 2.9395420e-03    50.51   192.37     1.50  PERIOD  ALL       00043872
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582340.00000 4195990.00000 3.2069110e-03    50.32   192.37     1.50  PERIOD  ALL       00043872
582360.00000 4195990.00000 3.2803040e-03    50.37    50.37     1.50  PERIOD  ALL       00043872
582380.00000 4195990.00000 3.3656480e-03    49.19    49.51     1.50  PERIOD  ALL       00043872
582400.00000 4195990.00000 3.3886330e-03    47.72    47.72     1.50  PERIOD  ALL       00043872
582420.00000 4195990.00000 3.3296030e-03    47.34    47.34     1.50  PERIOD  ALL       00043872
582440.00000 4195990.00000 3.2804730e-03    46.61    48.48     1.50  PERIOD  ALL       00043872
582460.00000 4195990.00000 3.3293330e-03    46.81    46.81     1.50  PERIOD  ALL       00043872
582480.00000 4195990.00000 3.1505950e-03    46.06    46.06     1.50  PERIOD  ALL       00043872
582500.00000 4195990.00000 3.7599050e-03    46.41    46.41     1.50  PERIOD  ALL       00043872
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582540.00000 4195990.00000 3.0019460e-03    46.76    46.76     1.50  PERIOD  ALL       00043872
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582580.00000 4195990.00000 3.0014930e-03    47.80    47.80     1.50  PERIOD  ALL       00043872
582600.00000 4195990.00000 3.0869670e-03    47.70    47.70     1.50  PERIOD  ALL       00043872
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582660.00000 4195990.00000 3.3154200e-03    43.88    47.91     1.50  PERIOD  ALL       00043872
582680.00000 4195990.00000 3.3403140e-03    43.68    43.68     1.50  PERIOD  ALL       00043872
582700.00000 4195990.00000 3.3469160e-03    43.77    43.77     1.50  PERIOD  ALL       00043872
582720.00000 4195990.00000 3.3833180e-03    43.75    43.75     1.50  PERIOD  ALL       00043872
582740.00000 4195990.00000 3.2494110e-03    43.28    43.28     1.50  PERIOD  ALL       00043872
582760.00000 4195990.00000 3.2060260e-03    42.98    42.98     1.50  PERIOD  ALL       00043872
582780.00000 4195990.00000 3.3878380e-03    43.11    43.11     1.50  PERIOD  ALL       00043872
582800.00000 4195990.00000 2.9079530e-03    42.42    42.42     1.50  PERIOD  ALL       00043872
582000.00000 4196010.00000 9.3932090e-04    50.15   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196010.00000 1.0473440e-03    50.03   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196010.00000 1.1683360e-03    50.65   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196010.00000 1.3194490e-03    49.85   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196010.00000 1.4955780e-03    48.93   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196010.00000 1.6951450e-03    48.44   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196010.00000 1.9268370e-03    47.29   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196010.00000 2.1867430e-03    47.35   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196010.00000 2.4762210e-03    48.05   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196010.00000 2.8525870e-03    47.51   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4196010.00000 2.9428350e-03    46.51   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196010.00000 3.2022580e-03    46.58   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4196010.00000 3.7147010e-03    47.16   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4196010.00000 3.7110700e-03    47.83   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4196010.00000 3.6833380e-03    50.51   192.37     1.50  PERIOD  ALL       00043872
582300.00000 4196010.00000 3.8239090e-03    50.88   192.37     1.50  PERIOD  ALL       00043872
582320.00000 4196010.00000 4.0343930e-03    50.85   192.37     1.50  PERIOD  ALL       00043872
582340.00000 4196010.00000 4.2557030e-03    50.90    50.90     1.50  PERIOD  ALL       00043872
582360.00000 4196010.00000 4.4328590e-03    51.16    51.16     1.50  PERIOD  ALL       00043872
582380.00000 4196010.00000 4.6129250e-03    50.10    50.10     1.50  PERIOD  ALL       00043872
582400.00000 4196010.00000 4.7106610e-03    48.95    48.95     1.50  PERIOD  ALL       00043872
582420.00000 4196010.00000 4.6467420e-03    48.77    48.77     1.50  PERIOD  ALL       00043872
582440.00000 4196010.00000 4.5403680e-03    48.23    48.23     1.50  PERIOD  ALL       00043872
582460.00000 4196010.00000 4.5170480e-03    47.33    47.33     1.50  PERIOD  ALL       00043872
582480.00000 4196010.00000 4.1517250e-03    46.62    46.62     1.50  PERIOD  ALL       00043872
582500.00000 4196010.00000 4.5268720e-03    46.57    46.57     1.50  PERIOD  ALL       00043872
582520.00000 4196010.00000 4.0308060e-03    46.68    46.68     1.50  PERIOD  ALL       00043872
582540.00000 4196010.00000 3.9085310e-03    47.01    47.01     1.50  PERIOD  ALL       00043872
582560.00000 4196010.00000 3.9578740e-03    47.62    47.62     1.50  PERIOD  ALL       00043872
582580.00000 4196010.00000 4.0731770e-03    47.69    47.69     1.50  PERIOD  ALL       00043872
582600.00000 4196010.00000 4.1987910e-03    47.78    47.78     1.50  PERIOD  ALL       00043872
582620.00000 4196010.00000 4.2974710e-03    47.86    47.86     1.50  PERIOD  ALL       00043872
582640.00000 4196010.00000 4.3376640e-03    46.00    47.82     1.50  PERIOD  ALL       00043872
582660.00000 4196010.00000 4.3018640e-03    44.30    47.88     1.50  PERIOD  ALL       00043872
582680.00000 4196010.00000 4.2167070e-03    43.92    43.92     1.50  PERIOD  ALL       00043872
582700.00000 4196010.00000 4.0962150e-03    43.70    43.70     1.50  PERIOD  ALL       00043872
582720.00000 4196010.00000 3.9947360e-03    43.58    43.58     1.50  PERIOD  ALL       00043872
582740.00000 4196010.00000 4.0658440e-03    43.21    43.21     1.50  PERIOD  ALL       00043872
582760.00000 4196010.00000 3.4727250e-03    42.93    42.93     1.50  PERIOD  ALL       00043872
582780.00000 4196010.00000 3.8162190e-03    43.19    43.19     1.50  PERIOD  ALL       00043872
582800.00000 4196010.00000 3.2151300e-03    42.88    42.88     1.50  PERIOD  ALL       00043872
582000.00000 4196030.00000 8.9969950e-04    51.19   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196030.00000 1.0099900e-03    51.03   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196030.00000 1.1429630e-03    50.67   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196030.00000 1.3060020e-03    49.96   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196030.00000 1.5077750e-03    48.65   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196030.00000 1.7450750e-03    48.36   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196030.00000 2.0404560e-03    47.11   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196030.00000 2.4028020e-03    46.94   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196030.00000 2.8532760e-03    47.26   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196030.00000 3.4348770e-03    46.57   198.92     1.50  PERIOD  ALL       00043872
582200.00000 4196030.00000 3.6398040e-03    46.02   198.92     1.50  PERIOD  ALL       00043872
582220.00000 4196030.00000 4.2471560e-03    46.13   198.92     1.50  PERIOD  ALL       00043872
582240.00000 4196030.00000 4.6898420e-03    47.03   198.92     1.50  PERIOD  ALL       00043872
582260.00000 4196030.00000 5.0494050e-03    47.88   198.92     1.50  PERIOD  ALL       00043872
582280.00000 4196030.00000 5.0699040e-03    50.76   192.37     1.50  PERIOD  ALL       00043872
582300.00000 4196030.00000 5.2865680e-03    51.25   192.37     1.50  PERIOD  ALL       00043872
582320.00000 4196030.00000 5.6465560e-03    51.28    51.28     1.50  PERIOD  ALL       00043872
582340.00000 4196030.00000 5.9662240e-03    51.29    51.29     1.50  PERIOD  ALL       00043872
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582360.00000 4196030.00000 6.2498790e-03    51.29    51.29     1.50  PERIOD  ALL       00043872
582380.00000 4196030.00000 6.5355380e-03    50.80    50.80     1.50  PERIOD  ALL       00043872
582400.00000 4196030.00000 6.7328940e-03    50.14    50.14     1.50  PERIOD  ALL       00043872
582420.00000 4196030.00000 6.7365140e-03    49.60    49.60     1.50  PERIOD  ALL       00043872
582440.00000 4196030.00000 6.5820420e-03    49.03    49.03     1.50  PERIOD  ALL       00043872
582460.00000 4196030.00000 6.4775920e-03    47.90    47.90     1.50  PERIOD  ALL       00043872
582480.00000 4196030.00000 5.8814020e-03    47.20    47.20     1.50  PERIOD  ALL       00043872
582500.00000 4196030.00000 5.9541760e-03    47.35    47.35     1.50  PERIOD  ALL       00043872
582520.00000 4196030.00000 5.5691660e-03    47.51    47.51     1.50  PERIOD  ALL       00043872
582540.00000 4196030.00000 5.5882280e-03    47.67    47.67     1.50  PERIOD  ALL       00043872
582560.00000 4196030.00000 5.7445940e-03    47.65    47.65     1.50  PERIOD  ALL       00043872
582580.00000 4196030.00000 5.9012870e-03    47.31    47.31     1.50  PERIOD  ALL       00043872
582600.00000 4196030.00000 6.0078490e-03    47.40    47.40     1.50  PERIOD  ALL       00043872
582620.00000 4196030.00000 6.0249460e-03    47.70    47.70     1.50  PERIOD  ALL       00043872
582640.00000 4196030.00000 5.8895490e-03    45.25    47.80     1.50  PERIOD  ALL       00043872
582660.00000 4196030.00000 5.6598270e-03    44.52    44.52     1.50  PERIOD  ALL       00043872
582680.00000 4196030.00000 5.3479200e-03    43.92    43.92     1.50  PERIOD  ALL       00043872
582700.00000 4196030.00000 5.0067180e-03    43.36    43.36     1.50  PERIOD  ALL       00043872
582720.00000 4196030.00000 4.7089910e-03    43.12    43.12     1.50  PERIOD  ALL       00043872
582740.00000 4196030.00000 4.5798270e-03    43.00    43.00     1.50  PERIOD  ALL       00043872
582760.00000 4196030.00000 4.0718410e-03    42.83    42.83     1.50  PERIOD  ALL       00043872
582780.00000 4196030.00000 4.2173730e-03    42.98    42.98     1.50  PERIOD  ALL       00043872
582800.00000 4196030.00000 3.4837550e-03    41.78    42.64     1.50  PERIOD  ALL       00043872
582000.00000 4196050.00000 8.3780820e-04    52.29   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196050.00000 9.4758910e-04    51.55   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196050.00000 1.0807020e-03    50.81   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196050.00000 1.2453250e-03    49.98   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196050.00000 1.4520370e-03    49.09   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196050.00000 1.7112120e-03    48.43   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196050.00000 2.0491330e-03    47.35   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196050.00000 2.4986030e-03    46.30   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196050.00000 3.1344390e-03    46.38   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196050.00000 4.0671360e-03    45.85   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196050.00000 8.7115570e-03    47.52    47.52     1.50  PERIOD  ALL       00043872
582640.00000 4196050.00000 8.1036530e-03    44.67    47.87     1.50  PERIOD  ALL       00043872
582660.00000 4196050.00000 7.4581270e-03    44.59    44.59     1.50  PERIOD  ALL       00043872
582680.00000 4196050.00000 6.7320430e-03    44.02    44.02     1.50  PERIOD  ALL       00043872
582700.00000 4196050.00000 6.0397300e-03    43.26    43.26     1.50  PERIOD  ALL       00043872
582720.00000 4196050.00000 5.4747510e-03    43.18    43.18     1.50  PERIOD  ALL       00043872
582740.00000 4196050.00000 5.1368750e-03    43.03    43.03     1.50  PERIOD  ALL       00043872
582760.00000 4196050.00000 4.4442330e-03    42.73    42.73     1.50  PERIOD  ALL       00043872
582780.00000 4196050.00000 4.5226400e-03    42.89    42.89     1.50  PERIOD  ALL       00043872
582800.00000 4196050.00000 3.6875270e-03    40.24    42.91     1.50  PERIOD  ALL       00043872
582000.00000 4196070.00000 7.6596060e-04    52.41   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196070.00000 8.6474840e-04    51.91   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196070.00000 9.9082760e-04    50.72   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196070.00000 1.1448150e-03    49.82   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196070.00000 1.3326260e-03    49.52   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196070.00000 1.5705760e-03    49.58   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196070.00000 1.9181330e-03    48.05   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196070.00000 2.3862620e-03    46.10   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196070.00000 3.0994550e-03    45.91   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196070.00000 4.0786170e-03    45.51   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196070.00000 1.2788450e-02    45.89    47.90     1.50  PERIOD  ALL       00043872
582640.00000 4196070.00000 1.1189990e-02    44.51    47.87     1.50  PERIOD  ALL       00043872
582660.00000 4196070.00000 9.6912090e-03    44.64    44.64     1.50  PERIOD  ALL       00043872
582680.00000 4196070.00000 8.2903810e-03    44.40    44.40     1.50  PERIOD  ALL       00043872
582700.00000 4196070.00000 7.0953490e-03    43.31    43.31     1.50  PERIOD  ALL       00043872
582720.00000 4196070.00000 6.2045660e-03    43.12    43.12     1.50  PERIOD  ALL       00043872
582740.00000 4196070.00000 5.6690200e-03    42.79    42.79     1.50  PERIOD  ALL       00043872
582760.00000 4196070.00000 4.7978070e-03    42.64    42.64     1.50  PERIOD  ALL       00043872
582780.00000 4196070.00000 4.7131480e-03    42.75    42.75     1.50  PERIOD  ALL       00043872
582800.00000 4196070.00000 3.8017550e-03    38.83    42.96     1.50  PERIOD  ALL       00043872
582000.00000 4196090.00000 6.8977850e-04    51.88   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196090.00000 7.7401730e-04    51.77   198.92     1.50  PERIOD  ALL       00043872
582040.00000 4196090.00000 8.8492920e-04    50.56   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196090.00000 1.0203250e-03    49.61   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196090.00000 1.1835590e-03    49.29   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196090.00000 1.3872200e-03    49.39   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196090.00000 1.6838790e-03    48.33   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196090.00000 2.0927300e-03    46.87   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196090.00000 2.7203570e-03    45.74   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196090.00000 3.4037580e-03    45.29   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196090.00000 1.8836280e-02    44.69    51.15     1.50  PERIOD  ALL       00043872
582640.00000 4196090.00000 1.5126890e-02    44.34    48.08     1.50  PERIOD  ALL       00043872
582660.00000 4196090.00000 1.2092000e-02    44.39    44.39     1.50  PERIOD  ALL       00043872
582680.00000 4196090.00000 9.7466230e-03    44.15    44.15     1.50  PERIOD  ALL       00043872
582700.00000 4196090.00000 8.0001990e-03    43.37    43.37     1.50  PERIOD  ALL       00043872
582720.00000 4196090.00000 6.7836080e-03    43.01    43.01     1.50  PERIOD  ALL       00043872
582740.00000 4196090.00000 5.8586260e-03    42.64    42.64     1.50  PERIOD  ALL       00043872
582760.00000 4196090.00000 5.0887530e-03    42.55    42.55     1.50  PERIOD  ALL       00043872
582780.00000 4196090.00000 4.7939190e-03    42.15    42.15     1.50  PERIOD  ALL       00043872
582800.00000 4196090.00000 3.8433140e-03    37.80    42.91     1.50  PERIOD  ALL       00043872
582000.00000 4196110.00000 6.1270040e-04    51.26   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196110.00000 6.8692280e-04    50.82   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196110.00000 7.7802370e-04    50.17   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196110.00000 8.9198630e-04    49.31   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196110.00000 1.0297060e-03    48.89   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196110.00000 1.2055660e-03    48.42   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196110.00000 1.4313090e-03    48.26   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196110.00000 1.7443660e-03    47.88   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196110.00000 2.2405120e-03    45.79   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196110.00000 2.5737920e-03    45.33   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196110.00000 2.7425370e-02    44.72    51.28     1.50  PERIOD  ALL       00043872
582640.00000 4196110.00000 1.9119730e-02    44.34    51.18     1.50  PERIOD  ALL       00043872
582660.00000 4196110.00000 1.4006130e-02    44.10    44.10     1.50  PERIOD  ALL       00043872
582680.00000 4196110.00000 1.0729350e-02    43.82    43.82     1.50  PERIOD  ALL       00043872
582700.00000 4196110.00000 8.5466490e-03    43.37    43.37     1.50  PERIOD  ALL       00043872
582720.00000 4196110.00000 7.1071910e-03    43.04    43.04     1.50  PERIOD  ALL       00043872
582740.00000 4196110.00000 5.8618940e-03    42.54    42.54     1.50  PERIOD  ALL       00043872
582760.00000 4196110.00000 5.1462850e-03    42.44    42.44     1.50  PERIOD  ALL       00043872
582780.00000 4196110.00000 4.7309020e-03    40.75    42.63     1.50  PERIOD  ALL       00043872
582800.00000 4196110.00000 3.8215760e-03    37.37    42.88     1.50  PERIOD  ALL       00043872
582000.00000 4196130.00000 5.4014340e-04    50.48   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196130.00000 6.0406560e-04    49.88   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196130.00000 6.8087210e-04    49.29   198.92     1.50  PERIOD  ALL       00043872
582060.00000 4196130.00000 7.7214280e-04    49.01   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196130.00000 8.8508370e-04    48.74   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196130.00000 1.0279540e-03    48.44   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196130.00000 1.2099610e-03    48.44   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196130.00000 1.4740520e-03    47.62   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196130.00000 1.8989470e-03    46.40   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196130.00000 2.0903620e-03    45.54   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196130.00000 3.3648800e-02    45.07    51.28     1.50  PERIOD  ALL       00043872
582640.00000 4196130.00000 2.0995960e-02    44.63    51.24     1.50  PERIOD  ALL       00043872
582660.00000 4196130.00000 1.4638470e-02    44.31    44.31     1.50  PERIOD  ALL       00043872
582680.00000 4196130.00000 1.0940230e-02    44.01    44.01     1.50  PERIOD  ALL       00043872
582700.00000 4196130.00000 8.6051640e-03    43.66    43.66     1.50  PERIOD  ALL       00043872
582720.00000 4196130.00000 7.1153190e-03    43.23    43.23     1.50  PERIOD  ALL       00043872
582740.00000 4196130.00000 5.8277680e-03    42.45    42.45     1.50  PERIOD  ALL       00043872
582760.00000 4196130.00000 5.0615230e-03    42.12    42.12     1.50  PERIOD  ALL       00043872
582780.00000 4196130.00000 4.5261330e-03    39.15    42.63     1.50  PERIOD  ALL       00043872
582800.00000 4196130.00000 3.7346160e-03    37.34    42.66     1.50  PERIOD  ALL       00043872
582000.00000 4196150.00000 4.7473340e-04    49.59   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196150.00000 5.2832280e-04    49.09   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196150.00000 5.9052040e-04    48.92   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196150.00000 6.6292080e-04    49.10   198.92     1.50  PERIOD  ALL       00043872
582080.00000 4196150.00000 7.5756850e-04    48.76   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196150.00000 8.7837790e-04    48.37   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196150.00000 1.0330380e-03    48.42   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196150.00000 1.2723770e-03    47.41   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196150.00000 1.6767370e-03    46.65   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196150.00000 1.7996740e-03    45.80   198.92     1.50  PERIOD  ALL       00043872
582620.00000 4196150.00000 2.9922140e-02    45.82    51.28     1.50  PERIOD  ALL       00043872
582640.00000 4196150.00000 1.9357670e-02    45.31    51.18     1.50  PERIOD  ALL       00043872
582660.00000 4196150.00000 1.3710060e-02    44.99    44.99     1.50  PERIOD  ALL       00043872
582680.00000 4196150.00000 1.0332410e-02    44.58    44.58     1.50  PERIOD  ALL       00043872
582700.00000 4196150.00000 8.1786980e-03    44.00    44.00     1.50  PERIOD  ALL       00043872
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582720.00000 4196150.00000 6.8295500e-03    43.56    43.56     1.50  PERIOD  ALL       00043872
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582780.00000 4196150.00000 4.2810480e-03    38.35    42.39     1.50  PERIOD  ALL       00043872
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582120.00000 4196170.00000 8.9126970e-04    48.17   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196170.00000 1.1053490e-03    47.63   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196170.00000 1.5255350e-03    46.35   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196170.00000 1.5588030e-03    46.00   198.92     1.50  PERIOD  ALL       00043872
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582160.00000 4196190.00000 1.1773080e-03    46.40   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196190.00000 1.3560390e-03    46.08   198.92     1.50  PERIOD  ALL       00043872
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582740.00000 4196190.00000 4.8307900e-03    42.02    42.02     1.50  PERIOD  ALL       00043872
582760.00000 4196190.00000 4.5697510e-03    39.83    42.08     1.50  PERIOD  ALL       00043872
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582120.00000 4196210.00000 6.8373610e-04    48.11   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196210.00000 8.8748200e-04    47.09   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196210.00000 1.0631370e-03    46.46   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196210.00000 1.1989200e-03    46.08   198.92     1.50  PERIOD  ALL       00043872
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582660.00000 4196210.00000 8.1247380e-03    44.95    49.17     1.50  PERIOD  ALL       00043872
582680.00000 4196210.00000 6.8334630e-03    44.68    44.68     1.50  PERIOD  ALL       00043872
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582160.00000 4196230.00000 7.8731580e-04    46.42   198.92     1.50  PERIOD  ALL       00043872
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582720.00000 4196230.00000 4.5111510e-03    41.84    45.06     1.50  PERIOD  ALL       00043872
582740.00000 4196230.00000 4.5645290e-03    40.60    41.81     1.50  PERIOD  ALL       00043872
582760.00000 4196230.00000 3.6008970e-03    37.96    45.06     1.50  PERIOD  ALL       00043872
582780.00000 4196230.00000 3.0382910e-03    36.53    44.76     1.50  PERIOD  ALL       00043872
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582160.00000 4196250.00000 7.1923490e-04    46.45   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196250.00000 9.1002600e-04    46.23   198.92     1.50  PERIOD  ALL       00043872
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582160.00000 4196270.00000 6.7842660e-04    46.51   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196270.00000 8.3567990e-04    46.27   192.37     1.50  PERIOD  ALL       00043872
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582680.00000 4196270.00000 4.1766920e-03    42.13    45.09     1.50  PERIOD  ALL       00043872
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582720.00000 4196270.00000 3.9268220e-03    38.83    45.23     1.50  PERIOD  ALL       00043872
582740.00000 4196270.00000 3.2605630e-03    37.28    45.23     1.50  PERIOD  ALL       00043872
582760.00000 4196270.00000 2.8394200e-03    37.27    37.27     1.50  PERIOD  ALL       00043872
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582800.00000 4196270.00000 2.2118330e-03    35.93    35.93     1.50  PERIOD  ALL       00043872
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582060.00000 4196290.00000 3.1428330e-04    48.76   198.92     1.50  PERIOD  ALL       00043872
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582120.00000 4196290.00000 5.5736970e-04    46.56   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196290.00000 7.9959530e-04    46.45   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196290.00000 6.6028690e-04    46.45   198.92     1.50  PERIOD  ALL       00043872
582180.00000 4196290.00000 7.9089410e-04    46.15   192.37     1.50  PERIOD  ALL       00043872
582200.00000 4196290.00000 1.0630230e-03    46.43   192.37     1.50  PERIOD  ALL       00043872
582220.00000 4196290.00000 9.0072010e-04    44.13   192.37     1.50  PERIOD  ALL       00043872
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582380.00000 4196290.00000 2.0075060e-03    46.53    46.53     1.50  PERIOD  ALL       00043872
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582460.00000 4196290.00000 2.9266110e-03    49.82    49.82     1.50  PERIOD  ALL       00043872
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582660.00000 4196290.00000 4.1732680e-03    42.63    45.25     1.50  PERIOD  ALL       00043872
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582720.00000 4196290.00000 3.2592730e-03    37.42    45.30     1.50  PERIOD  ALL       00043872
582740.00000 4196290.00000 2.8437320e-03    37.16    44.93     1.50  PERIOD  ALL       00043872
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582780.00000 4196290.00000 2.2430050e-03    35.99    35.99     1.50  PERIOD  ALL       00043872
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582120.00000 4196310.00000 5.5819360e-04    46.30   198.92     1.50  PERIOD  ALL       00043872
582140.00000 4196310.00000 8.2951690e-04    46.18   198.92     1.50  PERIOD  ALL       00043872
582160.00000 4196310.00000 6.6138410e-04    46.22   192.37     1.50  PERIOD  ALL       00043872
582180.00000 4196310.00000 1.3933660e-03    46.07   192.37     1.50  PERIOD  ALL       00043872
582200.00000 4196310.00000 9.9613720e-04    46.26   192.37     1.50  PERIOD  ALL       00043872
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582300.00000 4196310.00000 1.0319660e-03    43.87    45.25     1.50  PERIOD  ALL       00043872
582320.00000 4196310.00000 1.1664460e-03    44.07    44.07     1.50  PERIOD  ALL       00043872
582340.00000 4196310.00000 1.3187170e-03    45.03    45.03     1.50  PERIOD  ALL       00043872
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582380.00000 4196310.00000 1.7933850e-03    46.38    46.38     1.50  PERIOD  ALL       00043872
582400.00000 4196310.00000 1.8321870e-03    46.80    50.74     1.50  PERIOD  ALL       00043872
582420.00000 4196310.00000 2.3709860e-03    48.59    50.83     1.50  PERIOD  ALL       00043872
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582460.00000 4196310.00000 2.3674750e-03    50.29    50.29     1.50  PERIOD  ALL       00043872
582480.00000 4196310.00000 2.5582940e-03    49.71    49.71     1.50  PERIOD  ALL       00043872
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582700.00000 4196310.00000 3.1891820e-03    37.17    50.94     1.50  PERIOD  ALL       00043872
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582740.00000 4196310.00000 2.4836770e-03    36.61    36.61     1.50  PERIOD  ALL       00043872
582760.00000 4196310.00000 2.2435910e-03    36.85    36.85     1.50  PERIOD  ALL       00043872
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582340.00000 4196330.00000 1.1876040e-03    43.18    43.18     1.50  PERIOD  ALL       00043872
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582480.00000 4196330.00000 2.1077420e-03    50.14    50.14     1.50  PERIOD  ALL       00043872
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582740.00000 4196330.00000 2.1730920e-03    35.38    35.38     1.50  PERIOD  ALL       00043872
582760.00000 4196330.00000 1.9977620e-03    36.35    36.35     1.50  PERIOD  ALL       00043872
582780.00000 4196330.00000 1.8242380e-03    35.74    35.74     1.50  PERIOD  ALL       00043872
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582140.00000 4196350.00000 6.8060010e-04    45.39   192.37     1.50  PERIOD  ALL       00043872
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582200.00000 4196350.00000 9.1523940e-04    45.98    45.98     1.50  PERIOD  ALL       00043872
582220.00000 4196350.00000 7.8961860e-04    46.33    46.33     1.50  PERIOD  ALL       00043872
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582260.00000 4196350.00000 7.6063710e-04    41.75    47.19     1.50  PERIOD  ALL       00043872
582280.00000 4196350.00000 8.0842590e-04    42.27    47.04     1.50  PERIOD  ALL       00043872
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582400.00000 4196350.00000 1.6204710e-03    45.34    51.07     1.50  PERIOD  ALL       00043872
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582460.00000 4196350.00000 1.7643070e-03    50.33    50.33     1.50  PERIOD  ALL       00043872
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582640.00000 4196350.00000 2.6369530e-03    41.07    51.03     1.50  PERIOD  ALL       00043872
582660.00000 4196350.00000 2.9711040e-03    39.76    45.28     1.50  PERIOD  ALL       00043872
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582740.00000 4196350.00000 1.9280250e-03    34.98    34.98     1.50  PERIOD  ALL       00043872
582760.00000 4196350.00000 1.7878440e-03    36.01    36.01     1.50  PERIOD  ALL       00043872
582780.00000 4196350.00000 1.6474390e-03    35.56    35.56     1.50  PERIOD  ALL       00043872
582800.00000 4196350.00000 1.5232010e-03    35.46    35.46     1.50  PERIOD  ALL       00043872
582000.00000 4196370.00000 1.9798310e-04    44.53   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196370.00000 2.2494160e-04    43.97   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196370.00000 2.5830380e-04    43.58   239.60     1.50  PERIOD  ALL       00043872
582060.00000 4196370.00000 3.0032490e-04    44.22   239.60     1.50  PERIOD  ALL       00043872
582080.00000 4196370.00000 3.4951470e-04    45.95   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196370.00000 4.3236900e-04    45.87   198.92     1.50  PERIOD  ALL       00043872
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582140.00000 4196370.00000 7.0920810e-04    44.96   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196370.00000 7.5400450e-04    45.12   192.37     1.50  PERIOD  ALL       00043872
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582340.00000 4196370.00000 1.1180750e-03    43.66    43.66     1.50  PERIOD  ALL       00043872
582360.00000 4196370.00000 1.3318410e-03    43.55    43.55     1.50  PERIOD  ALL       00043872
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582460.00000 4196370.00000 1.6666880e-03    47.76    50.98     1.50  PERIOD  ALL       00043872
582480.00000 4196370.00000 1.6528410e-03    49.56    49.56     1.50  PERIOD  ALL       00043872
582500.00000 4196370.00000 1.7558300e-03    46.08    50.89     1.50  PERIOD  ALL       00043872
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582540.00000 4196370.00000 1.9589520e-03    44.13    50.05     1.50  PERIOD  ALL       00043872
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582620.00000 4196370.00000 2.2579730e-03    41.09    51.03     1.50  PERIOD  ALL       00043872
582640.00000 4196370.00000 2.3711270e-03    40.63    40.63     1.50  PERIOD  ALL       00043872
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582680.00000 4196370.00000 2.2428040e-03    35.70    51.10     1.50  PERIOD  ALL       00043872
582700.00000 4196370.00000 2.0291570e-03    35.04    51.03     1.50  PERIOD  ALL       00043872
582720.00000 4196370.00000 1.8626110e-03    34.66    44.98     1.50  PERIOD  ALL       00043872
582740.00000 4196370.00000 1.7258740e-03    34.90    34.90     1.50  PERIOD  ALL       00043872
582760.00000 4196370.00000 1.6072100e-03    35.69    35.69     1.50  PERIOD  ALL       00043872
582780.00000 4196370.00000 1.4917210e-03    35.49    35.49     1.50  PERIOD  ALL       00043872
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582060.00000 4196390.00000 2.9765090e-04    43.32   239.60     1.50  PERIOD  ALL       00043872
582080.00000 4196390.00000 3.5872330e-04    44.30   198.92     1.50  PERIOD  ALL       00043872
582100.00000 4196390.00000 4.4702140e-04    44.98   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196390.00000 6.1479390e-04    44.78   198.32     1.50  PERIOD  ALL       00043872
582140.00000 4196390.00000 7.4926510e-04    44.61   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196390.00000 7.7894960e-04    44.69    44.69     1.50  PERIOD  ALL       00043872
582180.00000 4196390.00000 1.2077780e-03    44.78    44.78     1.50  PERIOD  ALL       00043872
582200.00000 4196390.00000 9.2025350e-04    44.84    44.84     1.50  PERIOD  ALL       00043872
582220.00000 4196390.00000 8.1588300e-04    44.99    44.99     1.50  PERIOD  ALL       00043872
582240.00000 4196390.00000 7.6511800e-04    46.62    47.06     1.50  PERIOD  ALL       00043872
582260.00000 4196390.00000 8.2496290e-04    41.26    47.06     1.50  PERIOD  ALL       00043872
582280.00000 4196390.00000 8.7941190e-04    42.15    47.06     1.50  PERIOD  ALL       00043872
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582340.00000 4196390.00000 1.2070450e-03    43.67    43.67     1.50  PERIOD  ALL       00043872
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582440.00000 4196390.00000 1.7226500e-03    44.95    51.07     1.50  PERIOD  ALL       00043872
582460.00000 4196390.00000 1.6305090e-03    46.06    50.98     1.50  PERIOD  ALL       00043872
582480.00000 4196390.00000 1.5546050e-03    49.69    49.69     1.50  PERIOD  ALL       00043872
582500.00000 4196390.00000 1.6711300e-03    44.18    50.98     1.50  PERIOD  ALL       00043872
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582560.00000 4196390.00000 1.9061150e-03    42.44    42.44     1.50  PERIOD  ALL       00043872
582580.00000 4196390.00000 2.0174860e-03    41.88    41.88     1.50  PERIOD  ALL       00043872
582600.00000 4196390.00000 2.1995220e-03    41.55    41.55     1.50  PERIOD  ALL       00043872
582620.00000 4196390.00000 2.1150110e-03    40.06    41.26     1.50  PERIOD  ALL       00043872
582640.00000 4196390.00000 2.1759710e-03    39.33    40.26     1.50  PERIOD  ALL       00043872
582660.00000 4196390.00000 2.2423300e-03    35.85    51.10     1.50  PERIOD  ALL       00043872
582680.00000 4196390.00000 1.9884940e-03    35.34    51.03     1.50  PERIOD  ALL       00043872
582700.00000 4196390.00000 1.8111600e-03    34.86    34.86     1.50  PERIOD  ALL       00043872
582720.00000 4196390.00000 1.6724160e-03    34.76    34.76     1.50  PERIOD  ALL       00043872
582740.00000 4196390.00000 1.5545290e-03    34.94    34.94     1.50  PERIOD  ALL       00043872
582760.00000 4196390.00000 1.4490180e-03    35.14    35.14     1.50  PERIOD  ALL       00043872
582780.00000 4196390.00000 1.3545940e-03    35.59    35.59     1.50  PERIOD  ALL       00043872
582800.00000 4196390.00000 1.2645320e-03    35.32    35.32     1.50  PERIOD  ALL       00043872
582000.00000 4196410.00000 1.7212850e-04    46.68   239.60     1.50  PERIOD  ALL       00043872
582020.00000 4196410.00000 2.0338890e-04    43.84   239.60     1.50  PERIOD  ALL       00043872
582040.00000 4196410.00000 2.4072650e-04    42.67   239.60     1.50  PERIOD  ALL       00043872
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582080.00000 4196410.00000 3.6058900e-04    42.92   239.60     1.50  PERIOD  ALL       00043872
582100.00000 4196410.00000 4.6699060e-04    43.51   198.92     1.50  PERIOD  ALL       00043872
582120.00000 4196410.00000 6.5811670e-04    43.62   198.32     1.50  PERIOD  ALL       00043872
582140.00000 4196410.00000 8.1441200e-04    44.07   192.37     1.50  PERIOD  ALL       00043872
582160.00000 4196410.00000 7.9700070e-04    44.29    44.29     1.50  PERIOD  ALL       00043872
582180.00000 4196410.00000 1.2317770e-03    44.38    44.38     1.50  PERIOD  ALL       00043872
582200.00000 4196410.00000 9.8456810e-04    44.56    44.56     1.50  PERIOD  ALL       00043872
582220.00000 4196410.00000 8.9909580e-04    45.12    45.12     1.50  PERIOD  ALL       00043872
582240.00000 4196410.00000 8.8933800e-04    45.04    47.06     1.50  PERIOD  ALL       00043872
582260.00000 4196410.00000 9.9491440e-04    41.42    47.06     1.50  PERIOD  ALL       00043872
582280.00000 4196410.00000 1.0943650e-03    41.35    47.06     1.50  PERIOD  ALL       00043872
582300.00000 4196410.00000 1.2285800e-03    41.70    41.70     1.50  PERIOD  ALL       00043872
582320.00000 4196410.00000 1.4023750e-03    42.13    42.13     1.50  PERIOD  ALL       00043872
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582360.00000 4196410.00000 1.9349230e-03    42.55    42.55     1.50  PERIOD  ALL       00043872
582380.00000 4196410.00000 1.8362610e-03    43.09    43.09     1.50  PERIOD  ALL       00043872
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582500.00000 4196410.00000 1.7701270e-03    43.44    50.42     1.50  PERIOD  ALL       00043872
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582680.00000 4196410.00000 1.7961700e-03    35.17    40.44     1.50  PERIOD  ALL       00043872
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582800.00000 4196410.00000 1.1541120e-03    35.32    35.32     1.50  PERIOD  ALL       00043872
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582140.00000 4196430.00000 6.6186440e-04    43.74    43.74     1.50  PERIOD  ALL       00043872
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582180.00000 4196430.00000 1.3585690e-03    44.17    44.17     1.50  PERIOD  ALL       00043872
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582440.00000 4196430.00000 1.9489310e-03    43.25    49.84     1.50  PERIOD  ALL       00043872
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582580.00000 4196430.00000 2.1336810e-03    39.37    40.96     1.50  PERIOD  ALL       00043872
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582680.00000 4196430.00000 1.6427120e-03    35.46    35.46     1.50  PERIOD  ALL       00043872
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582740.00000 4196430.00000 1.2746180e-03    34.91    34.91     1.50  PERIOD  ALL       00043872
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582120.00000 4196450.00000 6.8734720e-04    42.72   192.37     1.50  PERIOD  ALL       00043872
582140.00000 4196450.00000 7.3111490e-04    43.28    43.28     1.50  PERIOD  ALL       00043872
582160.00000 4196450.00000 8.6498560e-04    43.50    43.50     1.50  PERIOD  ALL       00043872
582180.00000 4196450.00000 1.2574330e-03    43.11    43.11     1.50  PERIOD  ALL       00043872
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582240.00000 4196450.00000 1.1914870e-03    41.29    46.81     1.50  PERIOD  ALL       00043872
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582440.00000 4196450.00000 1.4797870e-03    43.33    43.33     1.50  PERIOD  ALL       00043872
582460.00000 4196450.00000 1.5335020e-03    42.81    49.84     1.50  PERIOD  ALL       00043872
582480.00000 4196450.00000 1.5718520e-03    42.28    49.84     1.50  PERIOD  ALL       00043872
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582540.00000 4196450.00000 1.6521420e-03    40.32    49.84     1.50  PERIOD  ALL       00043872
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582660.00000 4196450.00000 1.7627590e-03    35.77    35.77     1.50  PERIOD  ALL       00043872
582680.00000 4196450.00000 1.5075750e-03    35.79    35.79     1.50  PERIOD  ALL       00043872
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582800.00000 4196450.00000 9.6338740e-04    35.34    35.34     1.50  PERIOD  ALL       00043872
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582060.00000 4196470.00000 2.1635480e-04    43.75   239.60     1.50  PERIOD  ALL       00043872
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582120.00000 4196470.00000 6.1932600e-04    42.62    42.62     1.50  PERIOD  ALL       00043872
582140.00000 4196470.00000 6.2607480e-04    42.96    42.96     1.50  PERIOD  ALL       00043872
582160.00000 4196470.00000 7.3494370e-04    43.06    43.06     1.50  PERIOD  ALL       00043872
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582260.00000 4196470.00000 1.3318590e-03    41.60    45.61     1.50  PERIOD  ALL       00043872
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582460.00000 4196470.00000 1.2936190e-03    42.66    42.66     1.50  PERIOD  ALL       00043872
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582680.00000 4196470.00000 1.3772880e-03    35.43    35.43     1.50  PERIOD  ALL       00043872
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582760.00000 4196470.00000 9.8613460e-04    35.20    35.20     1.50  PERIOD  ALL       00043872
582780.00000 4196470.00000 9.2901050e-04    34.94    34.94     1.50  PERIOD  ALL       00043872
582800.00000 4196470.00000 8.8043310e-04    35.48    35.48     1.50  PERIOD  ALL       00043872
581700.00000 4195550.00000 1.7342920e-04    64.46   239.60     1.50  PERIOD  ALL       00043872
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581850.00000 4195550.00000 1.8442540e-04    55.28   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4195550.00000 1.8117770e-04    54.29   198.92     1.50  PERIOD  ALL       00043872
581950.00000 4195550.00000 1.7444260e-04    52.95   198.92     1.50  PERIOD  ALL       00043872
582000.00000 4195550.00000 1.6863180e-04    50.57   198.92     1.50  PERIOD  ALL       00043872
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582250.00000 4195550.00000 1.3664590e-04    43.54   198.92     1.50  PERIOD  ALL       00043872
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582350.00000 4195550.00000 1.3072880e-04    42.16   198.92     1.50  PERIOD  ALL       00043872
582400.00000 4195550.00000 1.2973670e-04    41.73   198.92     1.50  PERIOD  ALL       00043872
582450.00000 4195550.00000 1.2855930e-04    41.99   192.37     1.50  PERIOD  ALL       00043872
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582550.00000 4195550.00000 1.2427580e-04    44.18    44.18     1.50  PERIOD  ALL       00043872
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582650.00000 4195550.00000 1.2048830e-04    40.23    40.23     1.50  PERIOD  ALL       00043872
582700.00000 4195550.00000 1.1833950e-04    34.63    45.26     1.50  PERIOD  ALL       00043872
582750.00000 4195550.00000 1.1931370e-04    39.81    45.26     1.50  PERIOD  ALL       00043872
582800.00000 4195550.00000 1.2228660e-04    40.46    45.26     1.50  PERIOD  ALL       00043872
582850.00000 4195550.00000 1.2789170e-04    42.73    42.73     1.50  PERIOD  ALL       00043872
582900.00000 4195550.00000 1.3622800e-04    43.08    43.08     1.50  PERIOD  ALL       00043872
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583000.00000 4195550.00000 1.5717090e-04    38.39    38.39     1.50  PERIOD  ALL       00043872
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583100.00000 4195550.00000 1.7665900e-04    37.62    37.62     1.50  PERIOD  ALL       00043872
581700.00000 4195600.00000 2.0270170e-04    63.01   239.60     1.50  PERIOD  ALL       00043872
581750.00000 4195600.00000 2.0968880e-04    61.63   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4195600.00000 2.1085260e-04    63.40   239.60     1.50  PERIOD  ALL       00043872
581850.00000 4195600.00000 2.2345210e-04    55.02   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4195600.00000 2.2341420e-04    53.28   239.60     1.50  PERIOD  ALL       00043872
581950.00000 4195600.00000 2.2247850e-04    52.00   198.92     1.50  PERIOD  ALL       00043872
582000.00000 4195600.00000 2.1734460e-04    51.56   198.92     1.50  PERIOD  ALL       00043872
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582100.00000 4195600.00000 2.0191120e-04    48.35   198.92     1.50  PERIOD  ALL       00043872
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582100.00000 4195800.00000 6.1017780e-04    53.97   198.92     1.50  PERIOD  ALL       00043872
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582950.00000 4195800.00000 6.6181320e-04    38.58    38.58     1.50  PERIOD  ALL       00043872
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583100.00000 4195800.00000 5.6221980e-04    37.66    37.66     1.50  PERIOD  ALL       00043872
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583050.00000 4195850.00000 7.3235020e-04    38.03    38.03     1.50  PERIOD  ALL       00043872
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583100.00000 4195950.00000 8.2814330e-04    37.72    37.72     1.50  PERIOD  ALL       00043872
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583050.00000 4196050.00000 1.0489560e-03    38.06    38.06     1.50  PERIOD  ALL       00043872
583100.00000 4196050.00000 8.7637430e-04    37.91    89.13     1.50  PERIOD  ALL       00043872
581700.00000 4196100.00000 1.8487520e-04    60.55   239.60     1.50  PERIOD  ALL       00043872
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581800.00000 4196150.00000 2.0554910e-04    55.03   239.60     1.50  PERIOD  ALL       00043872
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582850.00000 4196350.00000 1.2593380e-03    35.91    35.91     1.50  PERIOD  ALL       00043872
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582900.00000 4196450.00000 7.3602730e-04    35.77    35.77     1.50  PERIOD  ALL       00043872
582950.00000 4196450.00000 6.4665420e-04    36.18    36.18     1.50  PERIOD  ALL       00043872
583000.00000 4196450.00000 5.6708250e-04    35.27    35.27     1.50  PERIOD  ALL       00043872
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582050.00000 4196500.00000 1.5487870e-04    44.14   239.60     1.50  PERIOD  ALL       00043872
582100.00000 4196500.00000 3.0007550e-04    43.07    43.07     1.50  PERIOD  ALL       00043872
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582200.00000 4196500.00000 8.1003700e-04    43.01    43.01     1.50  PERIOD  ALL       00043872
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582500.00000 4196500.00000 8.8671510e-04    39.43    41.67     1.50  PERIOD  ALL       00043872
582550.00000 4196500.00000 9.9391470e-04    37.13    37.97     1.50  PERIOD  ALL       00043872
582600.00000 4196500.00000 1.2510290e-03    37.24    37.24     1.50  PERIOD  ALL       00043872
582650.00000 4196500.00000 1.6755030e-03    34.98    34.98     1.50  PERIOD  ALL       00043872
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582800.00000 4196500.00000 7.6769650e-04    35.35    35.35     1.50  PERIOD  ALL       00043872
582850.00000 4196500.00000 6.8153690e-04    34.96    34.96     1.50  PERIOD  ALL       00043872
582900.00000 4196500.00000 6.1059990e-04    35.58    35.58     1.50  PERIOD  ALL       00043872
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582250.00000 4196550.00000 3.5466510e-04    41.99    41.99     1.50  PERIOD  ALL       00043872
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582850.00000 4196550.00000 5.5610750e-04    34.76    34.76     1.50  PERIOD  ALL       00043872
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582750.00000 4196600.00000 5.2521020e-04    33.09    33.09     1.50  PERIOD  ALL       00043872
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583000.00000 4196600.00000 3.6237950e-04    34.32    34.32     1.50  PERIOD  ALL       00043872
583050.00000 4196600.00000 3.3576890e-04    34.63    34.63     1.50  PERIOD  ALL       00043872
583100.00000 4196600.00000 3.1049120e-04    34.33    89.13     1.50  PERIOD  ALL       00043872
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582000.00000 4196650.00000 7.2064610e-05    44.10   239.60     1.50  PERIOD  ALL       00043872
582050.00000 4196650.00000 8.6863580e-05    43.64    43.64     1.50  PERIOD  ALL       00043872
582100.00000 4196650.00000 1.0576440e-04    40.98    40.98     1.50  PERIOD  ALL       00043872
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581900.00000 4196950.00000 4.0140400e-05    42.05   239.60     1.50  PERIOD  ALL       00043872
582000.00000 4196950.00000 4.5644370e-05    39.68    39.68     1.50  PERIOD  ALL       00043872
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583100.00000 4196950.00000 1.3720740e-04    33.29    33.29     1.50  PERIOD  ALL       00043872
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583400.00000 4196950.00000 1.1050710e-04    45.83    66.15     1.50  PERIOD  ALL       00043872
583500.00000 4196950.00000 9.9889370e-05    58.10    58.10     1.50  PERIOD  ALL       00043872
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581600.00000 4197050.00000 2.1230360e-05    40.85   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4197050.00000 2.6089660e-05    38.71   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4197050.00000 3.1052870e-05    38.31   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4197050.00000 3.5144330e-05    38.65   239.60     1.50  PERIOD  ALL       00043872
582000.00000 4197050.00000 3.8823160e-05    43.71    43.71     1.50  PERIOD  ALL       00043872
582100.00000 4197050.00000 4.2367370e-05    44.62    44.62     1.50  PERIOD  ALL       00043872
582200.00000 4197050.00000 4.7975200e-05    35.08    44.67     1.50  PERIOD  ALL       00043872
582300.00000 4197050.00000 5.6459000e-05    32.85    32.85     1.50  PERIOD  ALL       00043872
582400.00000 4197050.00000 6.6910360e-05    30.93    30.93     1.50  PERIOD  ALL       00043872
582500.00000 4197050.00000 8.1153160e-05    30.66    30.66     1.50  PERIOD  ALL       00043872
582600.00000 4197050.00000 9.4223200e-05    31.39    31.39     1.50  PERIOD  ALL       00043872
582700.00000 4197050.00000 1.0712220e-04    32.09    32.09     1.50  PERIOD  ALL       00043872
582800.00000 4197050.00000 1.1818920e-04    32.42    32.42     1.50  PERIOD  ALL       00043872
582900.00000 4197050.00000 1.2257270e-04    32.21    32.21     1.50  PERIOD  ALL       00043872
583000.00000 4197050.00000 1.2055400e-04    32.97    32.97     1.50  PERIOD  ALL       00043872
583100.00000 4197050.00000 1.1355090e-04    29.75    33.40     1.50  PERIOD  ALL       00043872
583200.00000 4197050.00000 1.0586170e-04    32.52    32.52     1.50  PERIOD  ALL       00043872
583300.00000 4197050.00000 9.8941290e-05    35.65    59.77     1.50  PERIOD  ALL       00043872
583400.00000 4197050.00000 9.3142690e-05    48.83    48.87     1.50  PERIOD  ALL       00043872
583500.00000 4197050.00000 8.7946990e-05    50.56    54.37     1.50  PERIOD  ALL       00043872
583600.00000 4197050.00000 8.2851340e-05    53.14    60.70     1.50  PERIOD  ALL       00043872
581200.00000 4197150.00000 1.0121620e-05    44.66   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4197150.00000 1.1924760e-05    42.71   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4197150.00000 1.4345650e-05    41.36   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4197150.00000 1.7537490e-05    42.35   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4197150.00000 2.1414710e-05    42.67   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4197150.00000 2.5251560e-05    39.62   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4197150.00000 2.8119880e-05    36.51   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4197150.00000 3.0809160e-05    40.41    44.57     1.50  PERIOD  ALL       00043872
582000.00000 4197150.00000 3.2984170e-05    46.05    46.05     1.50  PERIOD  ALL       00043872
582100.00000 4197150.00000 3.5866760e-05    45.71    45.71     1.50  PERIOD  ALL       00043872
582200.00000 4197150.00000 4.0732750e-05    35.93    45.81     1.50  PERIOD  ALL       00043872
582300.00000 4197150.00000 4.6726230e-05    33.09    33.09     1.50  PERIOD  ALL       00043872
582400.00000 4197150.00000 5.4599190e-05    31.57    31.92     1.50  PERIOD  ALL       00043872
582500.00000 4197150.00000 6.4989770e-05    30.66    30.66     1.50  PERIOD  ALL       00043872
```

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582600.00000 4197150.00000 7.4302730e-05    31.07    31.07     1.50  PERIOD  ALL       00043872
582700.00000 4197150.00000 8.3793980e-05    31.81    31.81     1.50  PERIOD  ALL       00043872
582800.00000 4197150.00000 9.3174630e-05    32.24    32.24     1.50  PERIOD  ALL       00043872
582900.00000 4197150.00000 9.8676650e-05    32.10    32.10     1.50  PERIOD  ALL       00043872
583000.00000 4197150.00000 9.9378890e-05    32.72    32.72     1.50  PERIOD  ALL       00043872
583100.00000 4197150.00000 9.6073990e-05    32.44    32.63     1.50  PERIOD  ALL       00043872
583200.00000 4197150.00000 9.0225430e-05    30.57    48.18     1.50  PERIOD  ALL       00043872
583300.00000 4197150.00000 8.4702060e-05    35.51    48.18     1.50  PERIOD  ALL       00043872
583400.00000 4197150.00000 7.9840100e-05    37.47    54.73     1.50  PERIOD  ALL       00043872
583500.00000 4197150.00000 7.6058230e-05    45.18    51.20     1.50  PERIOD  ALL       00043872
583600.00000 4197150.00000 7.2476560e-05    50.27    50.27     1.50  PERIOD  ALL       00043872
581200.00000 4197250.00000 1.0320150e-05    42.65   239.60     1.50  PERIOD  ALL       00043872
581300.00000 4197250.00000 1.2265910e-05    42.52   239.60     1.50  PERIOD  ALL       00043872
581400.00000 4197250.00000 1.4741480e-05    40.10   239.60     1.50  PERIOD  ALL       00043872
581500.00000 4197250.00000 1.7742440e-05    38.92   239.60     1.50  PERIOD  ALL       00043872
581600.00000 4197250.00000 2.0928870e-05    38.89   239.60     1.50  PERIOD  ALL       00043872
581700.00000 4197250.00000 2.3519010e-05    39.00   239.60     1.50  PERIOD  ALL       00043872
581800.00000 4197250.00000 2.5076240e-05    35.75   239.60     1.50  PERIOD  ALL       00043872
581900.00000 4197250.00000 2.6924880e-05    42.04    42.04     1.50  PERIOD  ALL       00043872
582000.00000 4197250.00000 2.8309120e-05    44.10    44.10     1.50  PERIOD  ALL       00043872
582100.00000 4197250.00000 3.1099540e-05    44.32    44.32     1.50  PERIOD  ALL       00043872
582200.00000 4197250.00000 3.5633650e-05    43.49    43.49     1.50  PERIOD  ALL       00043872
582300.00000 4197250.00000 4.0254110e-05    41.34    41.34     1.50  PERIOD  ALL       00043872
582400.00000 4197250.00000 4.5853240e-05    34.09    34.95     1.50  PERIOD  ALL       00043872
582500.00000 4197250.00000 5.3340450e-05    30.27    30.27     1.50  PERIOD  ALL       00043872
582600.00000 4197250.00000 6.0130540e-05    30.78    30.78     1.50  PERIOD  ALL       00043872
582700.00000 4197250.00000 6.7207500e-05    31.52    31.52     1.50  PERIOD  ALL       00043872
582800.00000 4197250.00000 7.4883270e-05    31.22    31.22     1.50  PERIOD  ALL       00043872
582900.00000 4197250.00000 8.0556410e-05    31.35    31.35     1.50  PERIOD  ALL       00043872
583000.00000 4197250.00000 8.2779280e-05    32.05    32.05     1.50  PERIOD  ALL       00043872
583100.00000 4197250.00000 8.1754780e-05    32.26    48.18     1.50  PERIOD  ALL       00043872
583200.00000 4197250.00000 7.8830370e-05    40.71    48.18     1.50  PERIOD  ALL       00043872
583300.00000 4197250.00000 7.4121000e-05    42.28    48.18     1.50  PERIOD  ALL       00043872
583400.00000 4197250.00000 6.9530330e-05    37.79    51.40     1.50  PERIOD  ALL       00043872
583500.00000 4197250.00000 6.6085280e-05    46.06    51.40     1.50  PERIOD  ALL       00043872
583600.00000 4197250.00000 6.3456920e-05    38.82    57.16     1.50  PERIOD  ALL       00043872
582318.03000 4196156.28000 1.0199600e-02    49.31    49.43     1.50  PERIOD  ALL       00043872
582434.62000 4196184.27000 1.3475110e-02    50.47    50.47     1.50  PERIOD  ALL       00043872
582452.96000 4196111.52000 3.4168660e-02    49.74    49.74     1.50  PERIOD  ALL       00043872
582383.80000 4196094.54000 2.5674470e-02    51.13    51.13     1.50  PERIOD  ALL       00043872
582388.38000 4196074.72000 1.8708490e-02    51.07    51.07     1.50  PERIOD  ALL       00043872
582282.45000 4196052.16000 9.3035330e-03    50.01   192.37     1.50  PERIOD  ALL       00043872
582279.51000 4196069.38000 1.3825160e-02    48.26   192.37     1.50  PERIOD  ALL       00043872
582214.32000 4196055.42000 5.8232240e-03    45.50   198.92     1.50  PERIOD  ALL       00043872
582204.80000 4196106.51000 4.1238340e-03    45.14   198.92     1.50  PERIOD  ALL       00043872
582323.00000 4196133.54000 1.4265500e-02    50.35    50.35     1.50  PERIOD  ALL       00043872
582437.09000 4196234.18000 5.8691010e-03    49.98    49.98     1.50  PERIOD  ALL       00043872
582545.62000 4196260.83000 1.0389340e-02    51.01    51.01     1.50  PERIOD  ALL       00043872
582562.86000 4196212.92000 1.8602700e-02    51.25    51.25     1.50  PERIOD  ALL       00043872
582447.46000 4196187.89000 1.2143640e-02    50.47    50.47     1.50  PERIOD  ALL       00043872
582465.02000 4196119.46000 3.2850410e-02    49.88    49.88     1.50  PERIOD  ALL       00043872
582582.69000 4196151.50000 8.0882780e-02    51.21    51.21     1.50  PERIOD  ALL       00043872
582591.67000 4196124.78000 8.7323020e-02    50.01    50.69     1.50  PERIOD  ALL       00043872
582471.53000 4196093.98000 3.7689130e-02    49.18    49.18     1.50  PERIOD  ALL       00043872
582453.44000 4196160.63000 1.6787070e-02    50.42    50.42     1.50  PERIOD  ALL       00043872
582570.25000 4196189.66000 2.3208430e-02    51.11    51.11     1.50  PERIOD  ALL       00043872
582581.92000 4196153.58000 6.9482460e-02    51.22    51.22     1.50  PERIOD  ALL       00043872
582463.82000 4196121.33000 3.0872630e-02    49.92    49.92     1.50  PERIOD  ALL       00043872
582264.05000 4196238.14000 1.5320890e-03    44.72   192.37     1.50  PERIOD  ALL       00043872
582273.20000 4196240.46000 2.4623650e-03    45.03    46.86     1.50  PERIOD  ALL       00043872
582284.00000 4196197.16000 7.4617110e-03    47.21    47.55     1.50  PERIOD  ALL       00043872
582329.90000 4196208.30000 7.6621040e-03    47.88    47.88     1.50  PERIOD  ALL       00043872
582341.34000 4196162.11000 1.3431720e-02    49.90    50.56     1.50  PERIOD  ALL       00043872
582286.24000 4196148.61000 8.2345670e-03    46.19   192.37     1.50  PERIOD  ALL       00043872
582969.53000 4195797.56000 6.4317400e-04    38.59    38.59     1.50  PERIOD  ALL       00043872
```

Mitigated Residences on C- Non-Residential on A,B,D,E - Off-Site Residential

HARP Project Summary Report 12/6/2022 3:15:40 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC5_RES
Project Output Directory: C:\HARP2\PROJECTS\TWC5_RES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	6.91543	0	1
SITE_B	9901	DieselExhPM	1	2.36714	0	1
SITE_C	9901	DieselExhPM	1	16.92	0	1
SITE_D	9901	DieselExhPM	1	2.40096	0	1
SITE_E	9901	DieselExhPM	1	1.38647	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/1/2022 1:17:55 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC5_RES\hra\TWC5_RES_CANCER_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC5_RES\hra\TWC5_RES_CANCER_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/1/2022 1:18:17 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	327	ALL	582626	4196098	6.9255000e-06
2	415	ALL	582631	4196098	6.5215000e-06
3	414	ALL	582626	4196094	6.4834000e-06
4	416	ALL	582636	4196099	6.1365000e-06
5	413	ALL	582627	4196091	6.0617000e-06
6	417	ALL	582640	4196099	5.7739000e-06
7	412	ALL	582627	4196087	5.6589000e-06
8	418	ALL	582645	4196099	5.4336000e-06
9	326	ALL	582627	4196083	5.2780000e-06
10	411	ALL	582629	4196083	5.1556000e-06

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 11/30/2022 8:26:46 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	327	ALL	582626	4196098	4.0489000e-03
2	415	ALL	582631	4196098	3.8127000e-03
3	414	ALL	582626	4196094	3.7905000e-03
4	416	ALL	582636	4196099	3.5876000e-03
5	413	ALL	582627	4196091	3.5439000e-03
6	417	ALL	582640	4196099	3.3756000e-03
7	412	ALL	582627	4196087	3.3084000e-03
8	418	ALL	582645	4196099	3.1767000e-03
9	326	ALL	582627	4196083	3.0857000e-03
10	411	ALL	582629	4196083	3.0141000e-03

* MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN
* PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 644 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
582033.26000	4196289.55000	2.7875060e-04	44.86	239.60	1.50	PERIOD	ALL	00043872	
582098.16000	4196263.48000	4.2648010e-04	50.22	198.92	1.50	PERIOD	ALL	00043872	
582100.26000	4196247.28000	4.5213440e-04	50.77	198.92	1.50	PERIOD	ALL	00043872	
582096.16000	4196234.19000	4.6551060e-04	50.61	198.92	1.50	PERIOD	ALL	00043872	
582034.59000	4196258.60000	3.0631660e-04	46.16	239.60	1.50	PERIOD	ALL	00043872	
582037.90000	4196287.69000	2.8674630e-04	45.36	239.60	1.50	PERIOD	ALL	00043872	
582042.53000	4196285.83000	2.9347010e-04	46.24	239.60	1.50	PERIOD	ALL	00043872	
582047.17000	4196283.96000	2.9892870e-04	47.79	239.60	1.50	PERIOD	ALL	00043872	
582051.80000	4196282.10000	3.0466760e-04	48.91	198.92	1.50	PERIOD	ALL	00043872	
582056.44000	4196280.24000	3.1033240e-04	49.85	198.92	1.50	PERIOD	ALL	00043872	
582061.07000	4196278.38000	3.1843870e-04	50.18	198.92	1.50	PERIOD	ALL	00043872	
582065.71000	4196276.51000	3.2791550e-04	50.40	198.92	1.50	PERIOD	ALL	00043872	
582070.35000	4196274.65000	3.3857980e-04	50.50	198.92	1.50	PERIOD	ALL	00043872	
582074.98000	4196272.79000	3.4999390e-04	50.58	198.92	1.50	PERIOD	ALL	00043872	
582079.62000	4196270.93000	3.6197800e-04	50.68	198.92	1.50	PERIOD	ALL	00043872	
582084.25000	4196269.07000	3.7558400e-04	50.66	198.92	1.50	PERIOD	ALL	00043872	
582088.89000	4196267.20000	3.9003950e-04	50.66	198.92	1.50	PERIOD	ALL	00043872	
582093.52000	4196265.34000	4.0727030e-04	50.46	198.92	1.50	PERIOD	ALL	00043872	
582098.69000	4196259.43000	4.3098780e-04	50.48	198.92	1.50	PERIOD	ALL	00043872	
582099.21000	4196255.38000	4.3630670e-04	50.70	198.92	1.50	PERIOD	ALL	00043872	
582099.73000	4196251.33000	4.4408760e-04	50.72	198.92	1.50	PERIOD	ALL	00043872	
582098.89000	4196242.92000	4.5528230e-04	50.78	198.92	1.50	PERIOD	ALL	00043872	
582097.53000	4196238.55000	4.5994400e-04	50.71	198.92	1.50	PERIOD	ALL	00043872	
582091.76000	4196235.93000	4.4578240e-04	50.82	198.92	1.50	PERIOD	ALL	00043872	
582087.36000	4196237.68000	4.2858370e-04	50.90	198.92	1.50	PERIOD	ALL	00043872	
582082.97000	4196239.42000	4.1296340e-04	50.93	198.92	1.50	PERIOD	ALL	00043872	
582078.57000	4196241.16000	3.9851880e-04	50.93	198.92	1.50	PERIOD	ALL	00043872	
582074.17000	4196242.91000	3.8493010e-04	50.93	198.92	1.50	PERIOD	ALL	00043872	
582069.77000	4196244.65000	3.7246900e-04	50.88	198.92	1.50	PERIOD	ALL	00043872	
582065.38000	4196246.39000	3.6071040e-04	50.83	198.92	1.50	PERIOD	ALL	00043872	
582060.98000	4196248.14000	3.5015740e-04	50.67	198.92	1.50	PERIOD	ALL	00043872	
582056.58000	4196249.88000	3.4036900e-04	50.46	198.92	1.50	PERIOD	ALL	00043872	
582052.18000	4196251.63000	3.3369720e-04	49.73	198.92	1.50	PERIOD	ALL	00043872	
582047.78000	4196253.37000	3.2787490e-04	48.78	198.92	1.50	PERIOD	ALL	00043872	
582043.39000	4196255.11000	3.2218710e-04	47.48	239.60	1.50	PERIOD	ALL	00043872	
582038.99000	4196256.86000	3.1452800e-04	46.60	239.60	1.50	PERIOD	ALL	00043872	
582034.40000	4196263.02000	3.0142780e-04	46.03	239.60	1.50	PERIOD	ALL	00043872	
582034.21000	4196267.44000	2.9692890e-04	45.87	239.60	1.50	PERIOD	ALL	00043872	
582034.02000	4196271.86000	2.9286290e-04	45.67	239.60	1.50	PERIOD	ALL	00043872	
582033.83000	4196276.29000	2.8912420e-04	45.46	239.60	1.50	PERIOD	ALL	00043872	
582033.64000	4196280.71000	2.8552620e-04	45.23	239.60	1.50	PERIOD	ALL	00043872	
582033.45000	4196285.13000	2.8207340e-04	45.01	239.60	1.50	PERIOD	ALL	00043872	
581942.98000	4196183.33000	2.9279780e-04	51.77	239.60	1.50	PERIOD	ALL	00043872	
581945.42000	4196182.66000	2.9832330e-04	51.19	239.60	1.50	PERIOD	ALL	00043872	
581956.94000	4196148.43000	3.8893950e-04	50.82	239.60	1.50	PERIOD	ALL	00043872	
581952.97000	4196130.72000	4.2804140e-04	50.79	239.60	1.50	PERIOD	ALL	00043872	
581943.39000	4196122.05000	4.3008950e-04	51.57	239.60	1.50	PERIOD	ALL	00043872	
581941.58000	4196113.92000	4.4832380e-04	51.51	239.60	1.50	PERIOD	ALL	00043872	
581919.00000	4196090.07000	4.5266380e-04	53.63	239.60	1.50	PERIOD	ALL	00043872	
581946.86000	4196178.38000	3.0823190e-04	51.06	239.60	1.50	PERIOD	ALL	00043872	
581948.30000	4196174.10000	3.1852270e-04	50.96	239.60	1.50	PERIOD	ALL	00043872	
581949.74000	4196169.82000	3.2909970e-04	50.92	239.60	1.50	PERIOD	ALL	00043872	
581951.18000	4196165.54000	3.4010110e-04	50.90	239.60	1.50	PERIOD	ALL	00043872	
581952.62000	4196161.27000	3.5155240e-04	50.88	239.60	1.50	PERIOD	ALL	00043872	
581954.06000	4196156.99000	3.6341980e-04	50.89	239.60	1.50	PERIOD	ALL	00043872	
581955.50000	4196152.71000	3.7581230e-04	50.89	239.60	1.50	PERIOD	ALL	00043872	
581955.95000	4196144.00000	3.9873690e-04	50.74	239.60	1.50	PERIOD	ALL	00043872	
581954.95000	4196139.58000	4.0852290e-04	50.70	239.60	1.50	PERIOD	ALL	00043872	
581953.96000	4196135.15000	4.1827290e-04	50.73	239.60	1.50	PERIOD	ALL	00043872	
581949.78000	4196127.83000	4.2856600e-04	51.11	239.60	1.50	PERIOD	ALL	00043872	

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582962.96000 4195845.99000 8.4128460e-04    38.54    38.54     1.50  PERIOD  ALL       00043872
582931.68000 4195832.99000 8.1990530e-04    38.07    38.16     1.50  PERIOD  ALL       00043872
582904.67000 4195758.12000 5.0876160e-04    38.69    38.69     1.50  PERIOD  ALL       00043872
582929.36000 4195775.08000 5.7137330e-04    38.59    38.59     1.50  PERIOD  ALL       00043872
582955.30000 4195782.31000 5.9377130e-04    38.82    38.82     1.50  PERIOD  ALL       00043872
582975.76000 4195804.26000 6.6395610e-04    38.64    38.64     1.50  PERIOD  ALL       00043872
581974.48000 4196230.19000 2.6059140e-04    49.44   239.60     1.50  PERIOD  ALL       00043872
582000.84000 4196240.46000 2.7974650e-04    48.02   239.60     1.50  PERIOD  ALL       00043872
581989.04000 4196219.92000 2.9258100e-04    48.96   239.60     1.50  PERIOD  ALL       00043872
581875.50000 4196239.39000 1.7508580e-04    50.50   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196330.59000 1.1556530e-04    50.54   239.60     1.50  PERIOD  ALL       00043872
581868.94000 4196334.74000 1.1828270e-04    49.83   239.60     1.50  PERIOD  ALL       00043872
581881.72000 4196337.50000 1.2358000e-04    48.90   239.60     1.50  PERIOD  ALL       00043872
581859.61000 4196297.43000 1.3152790e-04    50.09   239.60     1.50  PERIOD  ALL       00043872
581828.45000 4196325.17000 1.0560490e-04    51.70   239.60     1.50  PERIOD  ALL       00043872
581839.13000 4196330.64000 1.0730320e-04    51.27   239.60     1.50  PERIOD  ALL       00043872
581848.13000 4196290.25000 1.2986410e-04    50.57   239.60     1.50  PERIOD  ALL       00043872
581843.73000 4196366.54000 9.4613250e-05    50.95   239.60     1.50  PERIOD  ALL       00043872
581855.07000 4196368.89000 9.7861140e-05    50.44   239.60     1.50  PERIOD  ALL       00043872
```

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581866.14000 4196373.32000 1.0040900e-04    49.96   239.60     1.50  PERIOD  ALL       00043872
581849.14000 4196393.05000 8.6648380e-05    50.43   239.60     1.50  PERIOD  ALL       00043872
581862.79000 4196398.11000 8.9435530e-05    49.88   239.60     1.50  PERIOD  ALL       00043872
581918.46000 4196386.85000 1.1889200e-04    48.65   239.60     1.50  PERIOD  ALL       00043872
581902.26000 4196417.16000 9.6346400e-05    49.41   239.60     1.50  PERIOD  ALL       00043872
581910.45000 4196402.67000 1.0689420e-04    49.10   239.60     1.50  PERIOD  ALL       00043872
581895.74000 4196442.96000 8.3110560e-05    49.52   239.60     1.50  PERIOD  ALL       00043872
581885.31000 4196457.98000 7.4570970e-05    49.75   239.60     1.50  PERIOD  ALL       00043872
581928.85000 4196461.51000 8.7176700e-05    50.09   239.60     1.50  PERIOD  ALL       00043872
581844.07000 4196437.28000 6.9849430e-05    50.76   239.60     1.50  PERIOD  ALL       00043872
581879.44000 4196475.56000 6.7952510e-05    49.84   239.60     1.50  PERIOD  ALL       00043872
581873.88000 4196494.74000 6.2188860e-05    49.73   239.60     1.50  PERIOD  ALL       00043872
581910.07000 4196515.59000 6.5952760e-05    49.43   239.60     1.50  PERIOD  ALL       00043872
581912.06000 4196492.75000 7.1699500e-05    49.71   239.60     1.50  PERIOD  ALL       00043872
581885.94000 4196504.72000 6.2702720e-05    49.55   239.60     1.50  PERIOD  ALL       00043872
581916.78000 4196518.43000 6.7007290e-05    49.40   239.60     1.50  PERIOD  ALL       00043872
581931.94000 4196530.87000 6.8467450e-05    49.22   239.60     1.50  PERIOD  ALL       00043872
581951.60000 4196541.15000 7.2041020e-05    48.80   239.60     1.50  PERIOD  ALL       00043872
581965.85000 4196564.96000 7.2218470e-05    48.25   239.60     1.50  PERIOD  ALL       00043872
581878.20000 4196549.30000 5.4445350e-05    49.25   239.60     1.50  PERIOD  ALL       00043872
581894.45000 4196559.42000 5.6336320e-05    48.97   239.60     1.50  PERIOD  ALL       00043872
581912.85000 4196572.30000 5.8621990e-05    48.61   239.60     1.50  PERIOD  ALL       00043872
581932.02000 4196584.57000 6.1455640e-05    48.24   239.60     1.50  PERIOD  ALL       00043872
581955.28000 4196590.58000 6.6182690e-05    47.86   239.60     1.50  PERIOD  ALL       00043872
581974.26000 4196604.31000 6.9462420e-05    47.34   239.60     1.50  PERIOD  ALL       00043872
581960.52000 4196631.52000 6.3893090e-05    45.94   239.60     1.50  PERIOD  ALL       00043872
581946.79000 4196621.04000 6.1769660e-05    46.17   239.60     1.50  PERIOD  ALL       00043872
581926.07000 4196607.05000 5.8554930e-05    46.78   239.60     1.50  PERIOD  ALL       00043872
581953.78000 4196662.48000 6.0206190e-05    45.14   239.60     1.50  PERIOD  ALL       00043872
581944.04000 4196677.71000 5.7301870e-05    45.37   239.60     1.50  PERIOD  ALL       00043872
581935.31000 4196689.20000 5.5055440e-05    45.59   239.60     1.50  PERIOD  ALL       00043872
581914.58000 4196649.50000 5.3504860e-05    46.35   239.60     1.50  PERIOD  ALL       00043872
```

Mitigated Residences on C- Non-Residential on A,B,D,E - Off-Site Preschool

HARP Project Summary Report 12/6/2022 5:50:20 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC5_PS
Project Output Directory: C:\HARP2\PROJECTS\TWC5_PS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	6.91543	0	1
SITE_B	9901	DieselExhPM	1	2.36714	0	1
SITE_C	9901	DieselExhPM	1	16.92	0	1
SITE_D	9901	DieselExhPM	1	2.40096	0	1
SITE_E	9901	DieselExhPM	1	1.38647	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/6/2022 5:49:31 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 3
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC5_PS\hra\TWC5_PS_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC5_PS\hra\TWC5_PS_Cancer_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 5:49:49 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	1	ALL	581887	4195456	9.4047000e-09
2	10	ALL	581896	4195456	9.3768000e-09
3	9	ALL	581892	4195456	9.3745000e-09
4	11	ALL	581901	4195456	9.3385000e-09
5	12	ALL	581905	4195456	9.3011000e-09
6	2	ALL	581910	4195456	9.2611000e-09
7	85	ALL	581885	4195451	9.2455000e-09
8	13	ALL	581914	4195456	9.2051000e-09
9	14	ALL	581919	4195455	9.1480000e-09
10	84	ALL	581883	4195447	9.0952000e-09

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 5:50:08 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	1	ALL	581887	4195456	2.4163000e-05
2	10	ALL	581896	4195456	2.4091000e-05
3	9	ALL	581892	4195456	2.4086000e-05
4	11	ALL	581901	4195456	2.3993000e-05
5	12	ALL	581905	4195456	2.3897000e-05
6	2	ALL	581910	4195456	2.3794000e-05
7	85	ALL	581885	4195451	2.3754000e-05
8	13	ALL	581914	4195456	2.3650000e-05
9	14	ALL	581919	4195455	2.3503000e-05
10	84	ALL	581883	4195447	2.3368000e-05

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:48:56
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF    85 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581887.28000 4195455.65000 1.2081530e-04   53.15   198.92     1.50  PERIOD  ALL       00043872
  581909.72000 4195456.02000 1.1897070e-04   52.26   198.92     1.50  PERIOD  ALL       00043872
  581923.66000 4195455.11000 1.1679200e-04   51.85   198.92     1.50  PERIOD  ALL       00043872
  581964.73000 4195436.83000 1.0322450e-04   50.37   198.92     1.50  PERIOD  ALL       00043872
  581990.43000 4195436.29000 9.9895490e-05   50.38   198.92     1.50  PERIOD  ALL       00043872
  581990.25000 4195361.56000 7.1201040e-05   54.41   198.92     1.50  PERIOD  ALL       00043872
  581873.17000 4195364.27000 8.3018160e-05   53.75   198.92     1.50  PERIOD  ALL       00043872
  581851.63000 4195376.03000 8.9910930e-05   53.50   198.92     1.50  PERIOD  ALL       00043872
  581891.77000 4195455.72000 1.2042750e-04   52.92   198.92     1.50  PERIOD  ALL       00043872
  581896.26000 4195455.80000 1.2045690e-04   52.72   198.92     1.50  PERIOD  ALL       00043872
  581900.74000 4195455.87000 1.1996440e-04   52.56   198.92     1.50  PERIOD  ALL       00043872
  581905.23000 4195455.95000 1.1948390e-04   52.41   198.92     1.50  PERIOD  ALL       00043872
  581914.37000 4195455.72000 1.1825050e-04   52.14   198.92     1.50  PERIOD  ALL       00043872
  581919.01000 4195455.41000 1.1751680e-04   52.02   198.92     1.50  PERIOD  ALL       00043872
  581928.22000 4195453.08000 1.1521040e-04   51.69   198.92     1.50  PERIOD  ALL       00043872
  581932.79000 4195451.05000 1.1362600e-04   51.54   198.92     1.50  PERIOD  ALL       00043872
  581937.35000 4195449.02000 1.1206700e-04   51.40   198.92     1.50  PERIOD  ALL       00043872
  581941.91000 4195446.99000 1.1051020e-04   51.24   198.92     1.50  PERIOD  ALL       00043872
  581946.48000 4195444.95000 1.0899950e-04   51.07   198.92     1.50  PERIOD  ALL       00043872
  581951.04000 4195442.92000 1.0751960e-04   50.89   198.92     1.50  PERIOD  ALL       00043872
  581955.60000 4195440.89000 1.0605480e-04   50.71   198.92     1.50  PERIOD  ALL       00043872
  581960.17000 4195438.86000 1.0464400e-04   50.51   198.92     1.50  PERIOD  ALL       00043872
  581969.01000 4195436.74000 1.0269810e-04   50.29   198.92     1.50  PERIOD  ALL       00043872
  581973.30000 4195436.65000 1.0214760e-04   50.27   198.92     1.50  PERIOD  ALL       00043872
  581977.58000 4195436.56000 1.0158580e-04   50.27   198.92     1.50  PERIOD  ALL       00043872
  581981.86000 4195436.47000 1.0103070e-04   50.29   198.92     1.50  PERIOD  ALL       00043872
  581986.15000 4195436.38000 1.0046590e-04   50.33   198.92     1.50  PERIOD  ALL       00043872
  581990.42000 4195431.31000 9.7749910e-05   50.51   198.92     1.50  PERIOD  ALL       00043872
  581990.41000 4195426.33000 9.5603750e-05   50.76   198.92     1.50  PERIOD  ALL       00043872
  581990.39000 4195421.34000 9.3493120e-05   51.06   198.92     1.50  PERIOD  ALL       00043872
  581990.38000 4195416.36000 9.1381330e-05   51.53   198.92     1.50  PERIOD  ALL       00043872
  581990.37000 4195411.38000 8.9328700e-05   51.99   198.92     1.50  PERIOD  ALL       00043872
  581990.36000 4195406.40000 8.7367170e-05   52.40   198.92     1.50  PERIOD  ALL       00043872
  581990.35000 4195401.42000 8.5478170e-05   52.78   198.92     1.50  PERIOD  ALL       00043872
  581990.33000 4195396.43000 8.3704790e-05   52.96   198.92     1.50  PERIOD  ALL       00043872
  581990.32000 4195391.45000 8.2026000e-05   53.13   198.92     1.50  PERIOD  ALL       00043872
  581990.31000 4195386.47000 8.0464550e-05   53.16   198.92     1.50  PERIOD  ALL       00043872
  581990.30000 4195381.49000 7.8944290e-05   53.19   198.92     1.50  PERIOD  ALL       00043872
  581990.29000 4195376.51000 7.7432080e-05   53.31   198.92     1.50  PERIOD  ALL       00043872
  581990.27000 4195371.52000 7.4564600e-05   53.44   198.92     1.50  PERIOD  ALL       00043872
  581990.26000 4195366.54000 7.2928070e-05   53.91   198.92     1.50  PERIOD  ALL       00043872
  581985.37000 4195361.67000 7.1169580e-05   54.91   198.92     1.50  PERIOD  ALL       00043872
  581980.49000 4195361.79000 7.1380940e-05   55.04   198.92     1.50  PERIOD  ALL       00043872
  581975.61000 4195361.90000 7.1675560e-05   55.06   198.92     1.50  PERIOD  ALL       00043872
  581970.74000 4195362.01000 7.2071870e-05   54.95   198.92     1.50  PERIOD  ALL       00043872
  581965.86000 4195362.13000 7.2535960e-05   54.77   198.92     1.50  PERIOD  ALL       00043872
  581960.98000 4195362.24000 7.3052860e-05   54.54   198.92     1.50  PERIOD  ALL       00043872
  581956.10000 4195362.35000 7.3579790e-05   54.33   198.92     1.50  PERIOD  ALL       00043872
  581951.22000 4195362.46000 7.4123820e-05   54.14   198.92     1.50  PERIOD  ALL       00043872
  581946.34000 4195362.58000 7.4641180e-05   54.00   198.92     1.50  PERIOD  ALL       00043872
  581941.47000 4195362.69000 7.5411580e-05   53.90   198.92     1.50  PERIOD  ALL       00043872
  581936.59000 4195362.80000 7.5912890e-05   53.84   198.92     1.50  PERIOD  ALL       00043872
  581931.71000 4195362.92000 7.6460440e-05   53.74   198.92     1.50  PERIOD  ALL       00043872
  581926.83000 4195363.03000 7.7008840e-05   53.65   198.92     1.50  PERIOD  ALL       00043872
  581921.95000 4195363.14000 7.7545590e-05   53.60   198.92     1.50  PERIOD  ALL       00043872
  581917.07000 4195363.25000 7.8057880e-05   53.60   198.92     1.50  PERIOD  ALL       00043872
  581912.20000 4195363.37000 7.8555070e-05   53.64   198.92     1.50  PERIOD  ALL       00043872
  581907.32000 4195363.48000 7.9066450e-05   53.67   198.92     1.50  PERIOD  ALL       00043872
  581902.44000 4195363.59000 7.9595590e-05   53.70   198.92     1.50  PERIOD  ALL       00043872
  581897.56000 4195363.71000 8.0148850e-05   53.70   198.92     1.50  PERIOD  ALL       00043872
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581892.68000 4195363.82000 8.0713990e-05    53.70   198.92     1.50  PERIOD  ALL       00043872
581887.81000 4195363.93000 8.1282410e-05    53.71   198.92     1.50  PERIOD  ALL       00043872
581882.93000 4195364.04000 8.1863040e-05    53.71   198.92     1.50  PERIOD  ALL       00043872
581878.05000 4195364.16000 8.2455140e-05    53.71   198.92     1.50  PERIOD  ALL       00043872
581868.86000 4195366.62000 8.4418790e-05    53.60   198.92     1.50  PERIOD  ALL       00043872
581864.55000 4195368.97000 8.5841800e-05    53.43   198.92     1.50  PERIOD  ALL       00043872
581860.25000 4195371.33000 8.7943600e-05    53.32   198.92     1.50  PERIOD  ALL       00043872
581855.94000 4195373.68000 8.9212950e-05    53.31   198.92     1.50  PERIOD  ALL       00043872
581853.61000 4195380.45000 9.1894890e-05    53.26   198.92     1.50  PERIOD  ALL       00043872
581855.59000 4195384.88000 9.3300560e-05    53.31   198.92     1.50  PERIOD  ALL       00043872
581857.57000 4195389.30000 9.4729900e-05    53.36   198.92     1.50  PERIOD  ALL       00043872
581859.55000 4195393.72000 9.5853040e-05    53.39   198.92     1.50  PERIOD  ALL       00043872
581861.53000 4195398.15000 9.7722960e-05    53.37   198.92     1.50  PERIOD  ALL       00043872
581863.51000 4195402.57000 9.8979720e-05    53.41   198.92     1.50  PERIOD  ALL       00043872
581865.49000 4195406.99000 1.0057850e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
581867.47000 4195411.42000 1.0225100e-04    53.43   198.92     1.50  PERIOD  ALL       00043872
581869.45000 4195415.84000 1.0395210e-04    53.40   198.92     1.50  PERIOD  ALL       00043872
581871.44000 4195420.26000 1.0565380e-04    53.45   198.92     1.50  PERIOD  ALL       00043872
581873.42000 4195424.69000 1.0734510e-04    53.60   198.92     1.50  PERIOD  ALL       00043872
581875.40000 4195429.11000 1.0910060e-04    53.69   198.92     1.50  PERIOD  ALL       00043872
581877.38000 4195433.53000 1.1095570e-04    53.67   198.92     1.50  PERIOD  ALL       00043872
581879.36000 4195437.96000 1.1286510e-04    53.64   198.92     1.50  PERIOD  ALL       00043872
581881.34000 4195442.38000 1.1480580e-04    53.61   198.92     1.50  PERIOD  ALL       00043872
581883.32000 4195446.80000 1.1683890e-04    53.49   198.92     1.50  PERIOD  ALL       00043872
581885.30000 4195451.23000 1.1876920e-04    53.24   198.92     1.50  PERIOD  ALL       00043872
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Mitigated Residences on C- Non-Residential on A,B,D,E - Off-Site Elementary School

HARP Project Summary Report 12/6/2022 5:44:50 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC5_ES
Project Output Directory: C:\HARP2\PROJECTS\TWC5_ES
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	6.91543	0	1
SITE_B	9901	DieselExhPM	1	2.36714	0	1
SITE_C	9901	DieselExhPM	1	16.92	0	1
SITE_D	9901	DieselExhPM	1	2.40096	0	1
SITE_E	9901	DieselExhPM	1	1.38647	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/6/2022 5:43:52 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 5
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
SOIL & DERMAL PATHWAY SETTINGS

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed

```
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC5_ES\hra\TWC5_ES_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC5_ES\hra\TWC5_ES_Cancer_CancerRiskSumByRec.csv
HRA ran successfully
```

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 5:44:09 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	158	ALL	582789	4196170	1.5158000e-07
2	383	ALL	582788	4196175	1.5011000e-07
3	384	ALL	582787	4196180	1.4854000e-07
4	385	ALL	582786	4196184	1.4686000e-07
5	382	ALL	582794	4196172	1.4516000e-07
6	386	ALL	582786	4196189	1.4508000e-07
7	387	ALL	582785	4196193	1.4322000e-07
8	388	ALL	582784	4196198	1.4133000e-07
9	389	ALL	582783	4196203	1.3940000e-07
10	381	ALL	582798	4196173	1.3928000e-07

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/6/2022 5:44:36 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	158	ALL	582789	4196170	7.3351000e-04
2	383	ALL	582788	4196175	7.2640000e-04
3	384	ALL	582787	4196180	7.1880000e-04
4	385	ALL	582786	4196184	7.1065000e-04
5	382	ALL	582794	4196172	7.0243000e-04
6	386	ALL	582786	4196189	7.0203000e-04
7	387	ALL	582785	4196193	6.9305000e-04
8	388	ALL	582784	4196198	6.8391000e-04
9	389	ALL	582783	4196203	6.7454000e-04
10	381	ALL	582798	4196173	6.7398000e-04

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:43:27
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   643 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581750.36000 4196740.84000 3.1338630e-05   43.45   239.60     1.50  PERIOD  ALL       00043872
  581809.53000 4196562.92000 4.3478340e-05   48.69   239.60     1.50  PERIOD  ALL       00043872
  581675.28000 4196500.08000 3.7989940e-05   47.89   239.60     1.50  PERIOD  ALL       00043872
  581622.23000 4196652.29000 2.5203320e-05   46.83   239.60     1.50  PERIOD  ALL       00043872
  581627.95000 4196675.14000 2.4634250e-05   48.00   239.60     1.50  PERIOD  ALL       00043872
  581618.56000 4196709.01000 2.3362220e-05   47.70   239.60     1.50  PERIOD  ALL       00043872
  581751.92000 4196736.16000 3.1535900e-05   43.63   239.60     1.50  PERIOD  ALL       00043872
  581753.47000 4196731.48000 3.1737380e-05   43.82   239.60     1.50  PERIOD  ALL       00043872
  581755.03000 4196726.79000 3.1942800e-05   43.92   239.60     1.50  PERIOD  ALL       00043872
  581756.59000 4196722.11000 3.2158040e-05   43.96   239.60     1.50  PERIOD  ALL       00043872
  581758.15000 4196717.43000 3.2377670e-05   43.99   239.60     1.50  PERIOD  ALL       00043872
  581759.70000 4196712.75000 3.2598550e-05   44.05   239.60     1.50  PERIOD  ALL       00043872
  581761.26000 4196708.07000 3.2822790e-05   44.22   239.60     1.50  PERIOD  ALL       00043872
  581762.82000 4196703.38000 3.3057750e-05   44.31   239.60     1.50  PERIOD  ALL       00043872
  581764.37000 4196698.70000 3.3295560e-05   44.38   239.60     1.50  PERIOD  ALL       00043872
  581765.93000 4196694.02000 3.3542920e-05   44.42   239.60     1.50  PERIOD  ALL       00043872
  581767.49000 4196689.34000 3.3788760e-05   44.56   239.60     1.50  PERIOD  ALL       00043872
  581769.05000 4196684.66000 3.4040950e-05   44.73   239.60     1.50  PERIOD  ALL       00043872
  581770.60000 4196679.97000 3.4296580e-05   44.85   239.60     1.50  PERIOD  ALL       00043872
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  581775.27000 4196665.93000 3.5117450e-05   45.11   239.60     1.50  PERIOD  ALL       00043872
  581776.83000 4196661.24000 3.5395280e-05   45.30   239.60     1.50  PERIOD  ALL       00043872
  581778.39000 4196656.56000 3.5687930e-05   45.44   239.60     1.50  PERIOD  ALL       00043872
  581779.94000 4196651.88000 3.5990200e-05   45.50   239.60     1.50  PERIOD  ALL       00043872
  581781.50000 4196647.20000 3.6299160e-05   45.59   239.60     1.50  PERIOD  ALL       00043872
  581783.06000 4196642.52000 3.6614350e-05   45.73   239.60     1.50  PERIOD  ALL       00043872
  581784.62000 4196637.83000 3.6921320e-05   45.94   239.60     1.50  PERIOD  ALL       00043872
  581786.17000 4196633.15000 3.7232180e-05   46.17   239.60     1.50  PERIOD  ALL       00043872
  581789.29000 4196623.79000 3.7929920e-05   46.39   239.60     1.50  PERIOD  ALL       00043872
  581790.84000 4196619.11000 3.8295160e-05   46.49   239.60     1.50  PERIOD  ALL       00043872
  581792.40000 4196614.42000 3.8650960e-05   46.66   239.60     1.50  PERIOD  ALL       00043872
  581793.96000 4196609.74000 3.9032980e-05   46.81   239.60     1.50  PERIOD  ALL       00043872
  581795.52000 4196605.06000 3.9422750e-05   46.94   239.60     1.50  PERIOD  ALL       00043872
  581797.07000 4196600.38000 3.9833750e-05   47.06   239.60     1.50  PERIOD  ALL       00043872
  581798.63000 4196595.70000 4.0260130e-05   47.15   239.60     1.50  PERIOD  ALL       00043872
  581800.19000 4196591.01000 4.0694280e-05   47.26   239.60     1.50  PERIOD  ALL       00043872
  581801.74000 4196586.33000 4.1160120e-05   47.31   239.60     1.50  PERIOD  ALL       00043872
  581803.30000 4196581.65000 4.1634870e-05   47.39   239.60     1.50  PERIOD  ALL       00043872
  581804.86000 4196576.97000 4.2120600e-05   47.49   239.60     1.50  PERIOD  ALL       00043872
  581806.42000 4196572.28000 4.2616950e-05   47.62   239.60     1.50  PERIOD  ALL       00043872
  581807.97000 4196567.60000 4.3063880e-05   48.11   239.60     1.50  PERIOD  ALL       00043872
  581805.06000 4196560.83000 4.3136920e-05   48.67   239.60     1.50  PERIOD  ALL       00043872
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  581796.10000 4196556.64000 4.2480620e-05   48.66   239.60     1.50  PERIOD  ALL       00043872
  581791.63000 4196554.54000 4.2162450e-05   48.70   239.60     1.50  PERIOD  ALL       00043872
  581787.16000 4196552.45000 4.1860900e-05   48.72   239.60     1.50  PERIOD  ALL       00043872
  581782.68000 4196550.35000 4.1575700e-05   48.71   239.60     1.50  PERIOD  ALL       00043872
  581778.20000 4196548.26000 4.1301970e-05   48.72   239.60     1.50  PERIOD  ALL       00043872
  581773.73000 4196546.16000 4.1043950e-05   48.72   239.60     1.50  PERIOD  ALL       00043872
  581769.26000 4196544.07000 4.0796590e-05   48.72   239.60     1.50  PERIOD  ALL       00043872
  581764.78000 4196541.97000 4.0572860e-05   48.67   239.60     1.50  PERIOD  ALL       00043872
  581760.31000 4196539.88000 4.0379340e-05   48.56   239.60     1.50  PERIOD  ALL       00043872
  581755.83000 4196537.78000 4.0174600e-05   48.54   239.60     1.50  PERIOD  ALL       00043872
  581751.35000 4196535.69000 3.9969880e-05   48.55   239.60     1.50  PERIOD  ALL       00043872
  581746.88000 4196533.59000 3.9790180e-05   48.52   239.60     1.50  PERIOD  ALL       00043872
  581742.41000 4196531.50000 3.9633170e-05   48.42   239.60     1.50  PERIOD  ALL       00043872
  581737.93000 4196529.41000 3.9547190e-05   48.21   239.60     1.50  PERIOD  ALL       00043872
  581733.45000 4196527.31000 3.9347210e-05   48.24   239.60     1.50  PERIOD  ALL       00043872
  581728.98000 4196525.22000 3.9180860e-05   48.30   239.60     1.50  PERIOD  ALL       00043872
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581711.08000 4196516.84000 3.8808520e-05    47.64   239.60     1.50  PERIOD  ALL       00043872
581706.60000 4196514.74000 3.8707280e-05    47.60   239.60     1.50  PERIOD  ALL       00043872
581702.13000 4196512.65000 3.8588870e-05    47.61   239.60     1.50  PERIOD  ALL       00043872
581697.66000 4196510.55000 3.8477630e-05    47.67   239.60     1.50  PERIOD  ALL       00043872
581693.18000 4196508.46000 3.8364650e-05    47.75   239.60     1.50  PERIOD  ALL       00043872
581688.70000 4196506.36000 3.8259020e-05    47.83   239.60     1.50  PERIOD  ALL       00043872
581684.23000 4196504.27000 3.8166680e-05    47.85   239.60     1.50  PERIOD  ALL       00043872
581679.76000 4196502.17000 3.8079580e-05    47.85   239.60     1.50  PERIOD  ALL       00043872
581673.67000 4196504.69000 3.7378540e-05    47.78   239.60     1.50  PERIOD  ALL       00043872
581672.06000 4196509.30000 3.6788940e-05    47.65   239.60     1.50  PERIOD  ALL       00043872
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581668.85000 4196518.53000 3.5611230e-05    47.75   239.60     1.50  PERIOD  ALL       00043872
581667.24000 4196523.14000 3.5064720e-05    47.69   239.60     1.50  PERIOD  ALL       00043872
581665.63000 4196527.75000 3.4553820e-05    47.54   239.60     1.50  PERIOD  ALL       00043872
581664.03000 4196532.37000 3.4053760e-05    47.40   239.60     1.50  PERIOD  ALL       00043872
581662.42000 4196536.98000 3.3549900e-05    47.42   239.60     1.50  PERIOD  ALL       00043872
581660.81000 4196541.59000 3.3063770e-05    47.43   239.60     1.50  PERIOD  ALL       00043872
581659.20000 4196546.20000 3.2604420e-05    47.39   239.60     1.50  PERIOD  ALL       00043872
581657.60000 4196550.82000 3.2162740e-05    47.30   239.60     1.50  PERIOD  ALL       00043872
581655.99000 4196555.43000 3.1746930e-05    47.21   239.60     1.50  PERIOD  ALL       00043872
581654.38000 4196560.04000 3.1326380e-05    47.21   239.60     1.50  PERIOD  ALL       00043872
581652.77000 4196564.65000 3.0904500e-05    47.31   239.60     1.50  PERIOD  ALL       00043872
581651.17000 4196569.27000 3.0520180e-05    47.27   239.60     1.50  PERIOD  ALL       00043872
581649.56000 4196573.88000 3.0157570e-05    47.20   239.60     1.50  PERIOD  ALL       00043872
581647.95000 4196578.49000 2.9808530e-05    47.04   239.60     1.50  PERIOD  ALL       00043872
581646.34000 4196583.10000 2.9459560e-05    46.99   239.60     1.50  PERIOD  ALL       00043872
581644.74000 4196587.72000 2.9114960e-05    47.01   239.60     1.50  PERIOD  ALL       00043872
581643.13000 4196592.33000 2.8790940e-05    46.93   239.60     1.50  PERIOD  ALL       00043872
581641.52000 4196596.94000 2.8484170e-05    46.83   239.60     1.50  PERIOD  ALL       00043872
581639.91000 4196601.55000 2.8179150e-05    46.70   239.60     1.50  PERIOD  ALL       00043872
581638.31000 4196606.17000 2.7874210e-05    46.69   239.60     1.50  PERIOD  ALL       00043872
581636.70000 4196610.78000 2.7576980e-05    46.68   239.60     1.50  PERIOD  ALL       00043872
581635.09000 4196615.39000 2.7291570e-05    46.66   239.60     1.50  PERIOD  ALL       00043872
581633.48000 4196620.00000 2.7010480e-05    46.61   239.60     1.50  PERIOD  ALL       00043872
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581628.66000 4196633.84000 2.6219830e-05    46.50   239.60     1.50  PERIOD  ALL       00043872
581627.05000 4196638.45000 2.5964850e-05    46.47   239.60     1.50  PERIOD  ALL       00043872
581625.45000 4196643.07000 2.5711510e-05    46.49   239.60     1.50  PERIOD  ALL       00043872
581623.84000 4196647.68000 2.5453740e-05    46.63   239.60     1.50  PERIOD  ALL       00043872
581623.37000 4196656.86000 2.5065300e-05    47.18   239.60     1.50  PERIOD  ALL       00043872
581624.52000 4196661.43000 2.4939900e-05    47.49   239.60     1.50  PERIOD  ALL       00043872
581625.66000 4196666.00000 2.4828120e-05    47.73   239.60     1.50  PERIOD  ALL       00043872
581626.81000 4196670.57000 2.4718120e-05    47.94   239.60     1.50  PERIOD  ALL       00043872
581626.78000 4196679.37000 2.4450100e-05    48.11   239.60     1.50  PERIOD  ALL       00043872
581625.60000 4196683.61000 2.4271800e-05    48.18   239.60     1.50  PERIOD  ALL       00043872
581624.43000 4196687.84000 2.4106370e-05    48.13   239.60     1.50  PERIOD  ALL       00043872
581623.26000 4196692.08000 2.3946970e-05    48.09   239.60     1.50  PERIOD  ALL       00043872
581622.08000 4196696.31000 2.3795930e-05    47.99   239.60     1.50  PERIOD  ALL       00043872
581620.91000 4196700.54000 2.3653580e-05    47.86   239.60     1.50  PERIOD  ALL       00043872
581619.73000 4196704.78000 2.3505960e-05    47.75   239.60     1.50  PERIOD  ALL       00043872
581623.27000 4196710.15000 2.3578570e-05    47.42   239.60     1.50  PERIOD  ALL       00043872
581627.97000 4196711.28000 2.3792850e-05    47.22   239.60     1.50  PERIOD  ALL       00043872
581632.68000 4196712.42000 2.4005550e-05    47.10   239.60     1.50  PERIOD  ALL       00043872
581637.39000 4196713.56000 2.4221390e-05    47.01   239.60     1.50  PERIOD  ALL       00043872
581642.10000 4196714.69000 2.4441080e-05    46.96   239.60     1.50  PERIOD  ALL       00043872
581646.80000 4196715.83000 2.4663310e-05    46.92   239.60     1.50  PERIOD  ALL       00043872
581651.51000 4196716.97000 2.4898580e-05    46.87   239.60     1.50  PERIOD  ALL       00043872
581656.22000 4196718.10000 2.5135380e-05    46.82   239.60     1.50  PERIOD  ALL       00043872
581660.92000 4196719.24000 2.5377110e-05    46.75   239.60     1.50  PERIOD  ALL       00043872
581665.63000 4196720.38000 2.5628450e-05    46.69   239.60     1.50  PERIOD  ALL       00043872
581670.34000 4196721.51000 2.5884450e-05    46.62   239.60     1.50  PERIOD  ALL       00043872
581675.05000 4196722.65000 2.6150030e-05    46.56   239.60     1.50  PERIOD  ALL       00043872
581679.75000 4196723.79000 2.6423080e-05    46.49   239.60     1.50  PERIOD  ALL       00043872
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581689.17000 4196726.06000 2.6984760e-05    46.34   239.60     1.50  PERIOD  ALL       00043872
581693.87000 4196727.20000 2.7271360e-05    46.26   239.60     1.50  PERIOD  ALL       00043872
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581698.58000 4196728.33000 2.7567940e-05    46.17   239.60     1.50  PERIOD  ALL       00043872
581703.29000 4196729.47000 2.7874520e-05    46.09   239.60     1.50  PERIOD  ALL       00043872
581708.00000 4196730.61000 2.8180910e-05    46.01   239.60     1.50  PERIOD  ALL       00043872
581712.70000 4196731.75000 2.8497280e-05    45.91   239.60     1.50  PERIOD  ALL       00043872
581717.41000 4196732.88000 2.8821040e-05    45.81   239.60     1.50  PERIOD  ALL       00043872
581722.12000 4196734.02000 2.9157910e-05    45.69   239.60     1.50  PERIOD  ALL       00043872
581726.82000 4196735.16000 2.9494450e-05    45.57   239.60     1.50  PERIOD  ALL       00043872
581731.53000 4196736.29000 2.9848470e-05    45.34   239.60     1.50  PERIOD  ALL       00043872
581736.24000 4196737.43000 3.0208830e-05    45.05   239.60     1.50  PERIOD  ALL       00043872
581740.95000 4196738.57000 3.0583400e-05    44.64   239.60     1.50  PERIOD  ALL       00043872
581745.65000 4196739.70000 3.0960990e-05    44.08   239.60     1.50  PERIOD  ALL       00043872
582805.40000 4196436.91000 1.0058770e-03    35.37    35.37     1.50  PERIOD  ALL       00043872
582834.54000 4196444.14000 8.9693800e-04    35.41    35.41     1.50  PERIOD  ALL       00043872
582913.69000 4196437.33000 7.3763890e-04    32.56    36.43     1.50  PERIOD  ALL       00043872
582903.76000 4196315.92000 1.1417160e-03    33.92    36.60     1.50  PERIOD  ALL       00043872
582915.27000 4196261.09000 1.2839210e-03    32.39    36.90     1.50  PERIOD  ALL       00043872
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581708.41000 4196423.38000 5.1060700e-05    51.93   239.60     1.50  PERIOD  ALL       00043872
581710.69000 4196418.93000 5.1986380e-05    52.55   239.60     1.50  PERIOD  ALL       00043872
581712.97000 4196414.49000 5.2895630e-05    52.85   239.60     1.50  PERIOD  ALL       00043872
581715.25000 4196410.05000 5.4323100e-05    52.81   239.60     1.50  PERIOD  ALL       00043872
581717.53000 4196405.61000 5.5602310e-05    52.81   239.60     1.50  PERIOD  ALL       00043872
581719.80000 4196401.16000 5.6706820e-05    52.88   239.60     1.50  PERIOD  ALL       00043872
581722.08000 4196396.72000 5.8039380e-05    52.93   239.60     1.50  PERIOD  ALL       00043872
581724.36000 4196392.28000 5.9383370e-05    53.03   239.60     1.50  PERIOD  ALL       00043872
581726.64000 4196387.83000 6.0768510e-05    53.13   239.60     1.50  PERIOD  ALL       00043872
581728.92000 4196383.39000 6.2183020e-05    53.23   239.60     1.50  PERIOD  ALL       00043872
581731.20000 4196378.95000 6.3626210e-05    53.34   239.60     1.50  PERIOD  ALL       00043872
581733.48000 4196374.51000 6.4888140e-05    53.45   239.60     1.50  PERIOD  ALL       00043872
581735.76000 4196370.06000 6.6385310e-05    53.57   239.60     1.50  PERIOD  ALL       00043872
581738.04000 4196365.62000 6.7928930e-05    53.67   239.60     1.50  PERIOD  ALL       00043872
581740.32000 4196361.18000 6.9503100e-05    53.77   239.60     1.50  PERIOD  ALL       00043872
581742.59000 4196356.73000 7.1131170e-05    53.85   239.60     1.50  PERIOD  ALL       00043872
581744.87000 4196352.29000 7.2816410e-05    53.90   239.60     1.50  PERIOD  ALL       00043872
581747.15000 4196347.85000 7.4566040e-05    53.91   239.60     1.50  PERIOD  ALL       00043872
581749.43000 4196343.41000 7.6390730e-05    53.89   239.60     1.50  PERIOD  ALL       00043872
581751.71000 4196338.96000 7.8274300e-05    53.86   239.60     1.50  PERIOD  ALL       00043872
581750.04000 4196332.13000 8.0003460e-05    53.95   239.60     1.50  PERIOD  ALL       00043872
581746.09000 4196329.75000 7.9713470e-05    54.10   239.60     1.50  PERIOD  ALL       00043872
581742.14000 4196327.37000 7.9528080e-05    54.29   239.60     1.50  PERIOD  ALL       00043872
581738.19000 4196324.98000 7.9355810e-05    54.48   239.60     1.50  PERIOD  ALL       00043872
581734.24000 4196322.60000 7.9206680e-05    54.64   239.60     1.50  PERIOD  ALL       00043872
581730.28000 4196320.21000 7.9067740e-05    54.79   239.60     1.50  PERIOD  ALL       00043872
581726.33000 4196317.83000 7.8954030e-05    54.92   239.60     1.50  PERIOD  ALL       00043872
581722.38000 4196315.44000 7.8848280e-05    55.04   239.60     1.50  PERIOD  ALL       00043872
581718.43000 4196313.06000 7.8704590e-05    55.22   239.60     1.50  PERIOD  ALL       00043872
581714.48000 4196310.67000 7.8563970e-05    55.41   239.60     1.50  PERIOD  ALL       00043872
581843.32000 4195362.42000 8.5074630e-05    54.52   198.92     1.50  PERIOD  ALL       00043872
581870.11000 4195362.96000 8.2827900e-05    53.91   198.92     1.50  PERIOD  ALL       00043872
581870.47000 4195356.63000 8.0007010e-05    54.38   198.92     1.50  PERIOD  ALL       00043872
581900.70000 4195356.63000 7.6971220e-05    54.10   198.92     1.50  PERIOD  ALL       00043872
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581900.52000 4195351.74000 7.5319480e-05    54.36   198.92     1.50  PERIOD  ALL       00043872
581957.53000 4195350.47000 6.9684400e-05    55.37   198.92     1.50  PERIOD  ALL       00043872
581956.99000 4195361.51000 7.3202810e-05    54.45   198.92     1.50  PERIOD  ALL       00043872
581988.30000 4195361.15000 7.1044340e-05    54.66   198.92     1.50  PERIOD  ALL       00043872
581988.84000 4195311.92000 6.0119600e-05    55.56   198.92     1.50  PERIOD  ALL       00043872
581947.03000 4195312.83000 6.1956180e-05    55.07   198.92     1.50  PERIOD  ALL       00043872
581947.03000 4195307.03000 6.0683460e-05    55.30   198.92     1.50  PERIOD  ALL       00043872
581917.89000 4195306.85000 6.1998900e-05    55.42   198.92     1.50  PERIOD  ALL       00043872
581917.71000 4195301.42000 6.0723790e-05    55.71   198.92     1.50  PERIOD  ALL       00043872
581913.01000 4195301.24000 6.0934880e-05    55.72   198.92     1.50  PERIOD  ALL       00043872
581912.64000 4195294.73000 5.9398570e-05    56.18   198.92     1.50  PERIOD  ALL       00043872
581886.40000 4195294.91000 6.0627620e-05    56.76   198.92     1.50  PERIOD  ALL       00043872
581886.04000 4195299.07000 6.1695980e-05    56.48   198.92     1.50  PERIOD  ALL       00043872
581836.44000 4195297.62000 6.4024140e-05    58.79   198.92     1.50  PERIOD  ALL       00043872
581836.08000 4195311.56000 6.7948100e-05    58.20   198.92     1.50  PERIOD  ALL       00043872
581823.23000 4195315.36000 7.0136800e-05    58.54   198.92     1.50  PERIOD  ALL       00043872
581847.79000 4195362.51000 8.4664320e-05    54.36   198.92     1.50  PERIOD  ALL       00043872
581852.25000 4195362.60000 8.4168200e-05    54.35   198.92     1.50  PERIOD  ALL       00043872
581856.71000 4195362.69000 8.3702980e-05    54.29   198.92     1.50  PERIOD  ALL       00043872
581861.18000 4195362.78000 8.3280660e-05    54.17   198.92     1.50  PERIOD  ALL       00043872
581865.65000 4195362.87000 8.2874940e-05    54.04   198.92     1.50  PERIOD  ALL       00043872
581870.29000 4195359.79000 8.1192910e-05    54.20   198.92     1.50  PERIOD  ALL       00043872
581874.79000 4195356.63000 7.9580160e-05    54.30   198.92     1.50  PERIOD  ALL       00043872
581879.11000 4195356.63000 7.9147440e-05    54.24   198.92     1.50  PERIOD  ALL       00043872
581883.43000 4195356.63000 7.8695870e-05    54.21   198.92     1.50  PERIOD  ALL       00043872
581887.74000 4195356.63000 7.8255640e-05    54.18   198.92     1.50  PERIOD  ALL       00043872
581892.06000 4195356.63000 7.7817690e-05    54.16   198.92     1.50  PERIOD  ALL       00043872
581896.38000 4195356.63000 7.7390200e-05    54.13   198.92     1.50  PERIOD  ALL       00043872
581905.27000 4195351.63000 7.4859110e-05    54.32   198.92     1.50  PERIOD  ALL       00043872
581910.02000 4195351.53000 7.4401690e-05    54.30   198.92     1.50  PERIOD  ALL       00043872
581914.77000 4195351.42000 7.3917410e-05    54.32   198.92     1.50  PERIOD  ALL       00043872
581919.52000 4195351.32000 7.3448900e-05    54.35   198.92     1.50  PERIOD  ALL       00043872
581924.27000 4195351.21000 7.2943830e-05    54.44   198.92     1.50  PERIOD  ALL       00043872
581929.03000 4195351.11000 7.2460170e-05    54.53   198.92     1.50  PERIOD  ALL       00043872
581933.78000 4195351.00000 7.1996340e-05    54.61   198.92     1.50  PERIOD  ALL       00043872
581938.53000 4195350.89000 7.1558920e-05    54.67   198.92     1.50  PERIOD  ALL       00043872
581943.28000 4195350.79000 7.1149290e-05    54.72   198.92     1.50  PERIOD  ALL       00043872
581948.03000 4195350.68000 7.0692460e-05    54.86   198.92     1.50  PERIOD  ALL       00043872
581952.78000 4195350.58000 7.0228150e-05    55.04   198.92     1.50  PERIOD  ALL       00043872
581957.35000 4195354.15000 7.0816810e-05    55.07   198.92     1.50  PERIOD  ALL       00043872
581957.17000 4195357.83000 7.1995190e-05    54.76   198.92     1.50  PERIOD  ALL       00043872
581961.46000 4195361.46000 7.2735170e-05    54.65   198.92     1.50  PERIOD  ALL       00043872
581965.94000 4195361.41000 7.2279700e-05    54.86   198.92     1.50  PERIOD  ALL       00043872
581970.41000 4195361.36000 7.1877530e-05    55.02   198.92     1.50  PERIOD  ALL       00043872
581974.88000 4195361.30000 7.1519090e-05    55.13   198.92     1.50  PERIOD  ALL       00043872
581979.35000 4195361.25000 7.1251950e-05    55.13   198.92     1.50  PERIOD  ALL       00043872
581983.83000 4195361.20000 7.1041120e-05    55.06   198.92     1.50  PERIOD  ALL       00043872
581988.35000 4195356.23000 6.9698410e-05    54.90   198.92     1.50  PERIOD  ALL       00043872
581988.41000 4195351.30000 6.8404790e-05    55.13   198.92     1.50  PERIOD  ALL       00043872
581988.46000 4195346.38000 6.7235070e-05    55.22   198.92     1.50  PERIOD  ALL       00043872
581988.52000 4195341.46000 6.6112450e-05    55.29   198.92     1.50  PERIOD  ALL       00043872
581988.57000 4195336.54000 6.5020770e-05    55.37   198.92     1.50  PERIOD  ALL       00043872
581988.62000 4195331.61000 6.3959130e-05    55.45   198.92     1.50  PERIOD  ALL       00043872
581988.68000 4195326.69000 6.2941690e-05    55.51   198.92     1.50  PERIOD  ALL       00043872
581988.73000 4195321.77000 6.1961980e-05    55.56   198.92     1.50  PERIOD  ALL       00043872
581988.79000 4195316.84000 6.1016690e-05    55.58   198.92     1.50  PERIOD  ALL       00043872
581984.19000 4195312.02000 6.0155200e-05    55.80   198.92     1.50  PERIOD  ALL       00043872
581979.55000 4195312.12000 6.0274830e-05    55.85   198.92     1.50  PERIOD  ALL       00043872
581974.90000 4195312.22000 6.0411760e-05    55.88   198.92     1.50  PERIOD  ALL       00043872
581970.26000 4195312.32000 6.0559530e-05    55.90   198.92     1.50  PERIOD  ALL       00043872
581965.61000 4195312.43000 6.0756180e-05    55.85   198.92     1.50  PERIOD  ALL       00043872
581960.97000 4195312.53000 6.0970210e-05    55.78   198.92     1.50  PERIOD  ALL       00043872
581956.32000 4195312.63000 6.1328210e-05    55.45   198.92     1.50  PERIOD  ALL       00043872
581951.68000 4195312.73000 6.1681130e-05    55.17   198.92     1.50  PERIOD  ALL       00043872
581947.03000 4195309.93000 6.1337400e-05    55.14   198.92     1.50  PERIOD  ALL       00043872
581942.17000 4195307.00000 6.0899430e-05    55.27   198.92     1.50  PERIOD  ALL       00043872
581937.32000 4195306.97000 6.1101910e-05    55.29   198.92     1.50  PERIOD  ALL       00043872
581932.46000 4195306.94000 6.1278120e-05    55.38   198.92     1.50  PERIOD  ALL       00043872
581927.60000 4195306.91000 6.1466980e-05    55.46   198.92     1.50  PERIOD  ALL       00043872
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581922.75000 4195306.88000 6.1731570e-05    55.43   198.92     1.50  PERIOD  ALL       00043872
581917.80000 4195304.13000 6.1351780e-05    55.57   198.92     1.50  PERIOD  ALL       00043872
581912.82000 4195297.99000 6.0180100e-05    55.91   198.92     1.50  PERIOD  ALL       00043872
581908.27000 4195294.76000 5.9546810e-05    56.34   198.92     1.50  PERIOD  ALL       00043872
581903.89000 4195294.79000 5.9694790e-05    56.52   198.92     1.50  PERIOD  ALL       00043872
581899.52000 4195294.82000 5.9922290e-05    56.56   198.92     1.50  PERIOD  ALL       00043872
581895.15000 4195294.85000 6.0161260e-05    56.60   198.92     1.50  PERIOD  ALL       00043872
581890.77000 4195294.88000 6.0396330e-05    56.67   198.92     1.50  PERIOD  ALL       00043872
581881.08000 4195298.92000 6.1872300e-05    56.71   198.92     1.50  PERIOD  ALL       00043872
581876.12000 4195298.78000 6.2025950e-05    57.01   198.92     1.50  PERIOD  ALL       00043872
581871.16000 4195298.63000 6.2177600e-05    57.34   198.92     1.50  PERIOD  ALL       00043872
581866.20000 4195298.49000 6.2401600e-05    57.56   198.92     1.50  PERIOD  ALL       00043872
581861.24000 4195298.34000 6.2674780e-05    57.70   198.92     1.50  PERIOD  ALL       00043872
581856.28000 4195298.20000 6.3021700e-05    57.73   198.92     1.50  PERIOD  ALL       00043872
581851.32000 4195298.05000 6.3366050e-05    57.78   198.92     1.50  PERIOD  ALL       00043872
581846.36000 4195297.91000 6.3697970e-05    57.88   198.92     1.50  PERIOD  ALL       00043872
581841.40000 4195297.76000 6.3875650e-05    58.29   198.92     1.50  PERIOD  ALL       00043872
581836.32000 4195302.27000 6.5282850e-05    58.62   198.92     1.50  PERIOD  ALL       00043872
581836.20000 4195306.91000 6.6574180e-05    58.45   198.92     1.50  PERIOD  ALL       00043872
581831.80000 4195312.83000 6.8497970e-05    58.62   198.92     1.50  PERIOD  ALL       00043872
581827.51000 4195314.09000 6.9262470e-05    58.67   198.92     1.50  PERIOD  ALL       00043872
581825.07000 4195319.69000 7.1456160e-05    58.02   198.92     1.50  PERIOD  ALL       00043872
581826.92000 4195324.01000 7.2836420e-05    57.43   198.92     1.50  PERIOD  ALL       00043872
581828.76000 4195328.34000 7.4222780e-05    56.90   198.92     1.50  PERIOD  ALL       00043872
581830.60000 4195332.67000 7.5481700e-05    56.65   198.92     1.50  PERIOD  ALL       00043872
581832.44000 4195337.00000 7.6777880e-05    56.38   198.92     1.50  PERIOD  ALL       00043872
581834.29000 4195341.32000 7.8089650e-05    56.12   198.92     1.50  PERIOD  ALL       00043872
581836.13000 4195345.65000 7.9443580e-05    55.84   198.92     1.50  PERIOD  ALL       00043872
581837.97000 4195349.98000 8.0834230e-05    55.54   198.92     1.50  PERIOD  ALL       00043872
581839.81000 4195354.30000 8.2277110e-05    55.20   198.92     1.50  PERIOD  ALL       00043872
581841.66000 4195358.63000 8.3779760e-05    54.80   198.92     1.50  PERIOD  ALL       00043872
```

Mitigated Residences on C- Non-Residential on A,B,D,E - Off-Site Middle School

HARP Project Summary Report 12/6/2022 5:46:28 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: TWC5_MS
Project Output Directory: C:\HARP2\PROJECTS\TWC5_MS
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:10
No. of Background Pollutants:0

Emissions

ScrID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
SITE_A	9901	DieselExhPM	1	6.91543	0	1
SITE_B	9901	DieselExhPM	1	2.36714	0	1
SITE_C	9901	DieselExhPM	1	16.92	0	1
SITE_D	9901	DieselExhPM	1	2.40096	0	1
SITE_E	9901	DieselExhPM	1	1.38647	0	1
BDWY	9901	DieselExhPM	1	1.06	0	1
MAIN	9901	DieselExhPM	1	1.32	0	1
CIVIC	9901	DieselExhPM	1	1.06	0	1
YGNO	9901	DieselExhPM	1	1.06	0	1
PARK	9901	DieselExhPM	1	0.79	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

HARP2 - HRACalc (dated 22118) 12/6/2022 5:55:56 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 11
Total Exposure Duration: 2

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

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\HARP2\PROJECTS\TWC5_MS\hra\TWC5_MS_Cancer_CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\PROJECTS\TWC5_MS\hra\TWC5_MS_Cancer_CancerRiskSumByRec.csv
HRA ran successfully

HARP POINT OF MAXIMUM IMPACT REPORT FOR CANCER RISK 12/6/2022 5:56:12 AM
RISK SCENARIO: Cancer

LINE	REC	TYPE	X	Y	CANCER RISK
1	5	ALL	581862	4195647	1.8064000e-08
2	45	ALL	581858	4195647	1.8005000e-08
3	41	ALL	581853	4195647	1.7947000e-08
4	1	ALL	581849	4195647	1.7904000e-08
5	49	ALL	581865	4195643	1.7849000e-08
6	6	ALL	581862	4195647	1.7760000e-08
7	173	ALL	581849	4195644	1.7713000e-08
8	46	ALL	581858	4195647	1.7691000e-08
9	53	ALL	581869	4195640	1.7642000e-08
10	42	ALL	581853	4195647	1.7629000e-08

HARP POINT OF MAXIMUM IMPACT FOR CHRONIC RISK 12/1/2022 5:30:41 AM

LINE	REC	TYPE	X	Y	CHRONIC RISK
1	5	ALL	581862	4195647	5.1889000e-05
2	45	ALL	581858	4195647	5.1734000e-05
3	41	ALL	581853	4195647	5.1584000e-05
4	1	ALL	581849	4195647	5.1475000e-05
5	49	ALL	581865	4195643	5.1249000e-05
6	6	ALL	581862	4195647	5.1024000e-05
7	173	ALL	581849	4195644	5.0916000e-05
8	46	ALL	581858	4195647	5.0841000e-05
9	42	ALL	581853	4195647	5.0678000e-05
10	53	ALL	581869	4195640	5.0631000e-05

```
* AERMOD (22112 ):  HARP GENERATED FILE                                                    12/06/22
* AERMET ( 14134):                                                                        05:45:43
* MODELING OPTIONS USED:   RegDFAULT  CONC  ELEV  FLGPOL  URBAN
*         PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
*         FOR A TOTAL OF   176 RECEPTORS.
*         FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

*        X             Y       AVERAGE CONC    ZELEV    ZHILL    ZFLAG    AVE      GRP       NUM HRS   NET ID
* ____________ _____________ _____________ _______ _______ _______ _______ _________ ________ ________
  581849.04000 4195646.55000 2.6581700e-04   54.80   239.60    1.50  PERIOD  ALL       00043872
  581849.04000 4195646.56000 2.6106280e-04   54.80   239.60    4.50  PERIOD  ALL       00043872
  581849.04000 4195646.57000 2.5452870e-04   54.80   239.60    7.50  PERIOD  ALL       00043872
  581849.04000 4195646.58000 2.4621970e-04   54.80   239.60   10.50  PERIOD  ALL       00043872
  581862.03000 4195646.76000 2.6818230e-04   54.05   239.60    1.50  PERIOD  ALL       00043872
  581862.03000 4195646.77000 2.6368020e-04   54.05   239.60    4.50  PERIOD  ALL       00043872
  581862.03000 4195646.78000 2.5732080e-04   54.05   239.60    7.50  PERIOD  ALL       00043872
  581862.03000 4195646.79000 2.4911930e-04   54.05   239.60   10.50  PERIOD  ALL       00043872
  581878.85000 4195629.94000 2.5269220e-04   54.05   239.60    1.50  PERIOD  ALL       00043872
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581841.80000 4195577.89000 2.0276880e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581841.80000 4195577.90000 1.9844790e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581841.80000 4195577.91000 1.9266020e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581837.12000 4195582.60000 2.0919310e-04    55.00   239.60     1.50  PERIOD  ALL       00043872
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581837.12000 4195582.62000 2.0167380e-04    55.00   239.60     7.50  PERIOD  ALL       00043872
581837.12000 4195582.63000 1.9571370e-04    55.00   239.60    10.50  PERIOD  ALL       00043872
581836.90000 4195587.22000 2.1280320e-04    54.99   239.60     1.50  PERIOD  ALL       00043872
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581843.04000 4195624.16000 2.4417180e-04    54.91   239.60     1.50  PERIOD  ALL       00043872
581843.04000 4195624.17000 2.4001930e-04    54.91   239.60     4.50  PERIOD  ALL       00043872
581843.04000 4195624.18000 2.3423820e-04    54.91   239.60     7.50  PERIOD  ALL       00043872
581843.04000 4195624.19000 2.2682330e-04    54.91   239.60    10.50  PERIOD  ALL       00043872
581845.00000 4195632.57000 2.5207600e-04    54.83   239.60     1.50  PERIOD  ALL       00043872
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581845.00000 4195632.60000 2.3393990e-04    54.83   239.60    10.50  PERIOD  ALL       00043872
581846.91000 4195636.68000 2.5609650e-04    54.82   239.60     1.50  PERIOD  ALL       00043872
581846.91000 4195636.69000 2.5161540e-04    54.82   239.60     4.50  PERIOD  ALL       00043872
581846.91000 4195636.70000 2.4542890e-04    54.82   239.60     7.50  PERIOD  ALL       00043872
581846.91000 4195636.71000 2.3753180e-04    54.82   239.60    10.50  PERIOD  ALL       00043872
581848.94000 4195643.67000 2.6297510e-04    54.82   239.60     1.50  PERIOD  ALL       00043872
581848.94000 4195643.68000 2.5829340e-04    54.82   239.60     4.50  PERIOD  ALL       00043872
581848.94000 4195643.70000 2.5186090e-04    54.82   239.60     7.50  PERIOD  ALL       00043872
581848.94000 4195643.71000 2.4367060e-04    54.82   239.60    10.50  PERIOD  ALL       00043872
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Toyota Walnut Creek Energy Calculations

Summary of Energy Use During Construction		(Annually)
Construction vehicle fuel	183,075	gallons (gasoline, diesel)
Construction equipment fuel	55,394	gallons (diesel)
Total construction fuel	238,470	gallons (gasoline, diesel)
Construction office electricity	15,072	kilowatt hours

Summary of Energy Use During Operations		(Annually)
Operation vehicle fuel	802,333	gallons (gasoline, diesel)
Operation natural gas	0	kilo-British Thermal Units
Operation electricity	13,716,394	kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). 2022. EMFAC2017 Web Database. Website: https://www.arb.ca.gov/emfac/2017/.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Contra Costa
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

										Calculations	
Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel_Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
CONTRA COSTA	2024	HHDT	Aggregate	Aggregate	Gasoline	2.6261559	352.5716015	52.54413	1.044667	0.33749661	118.9917204
CONTRA COSTA	2024	HHDT	Aggregate	Aggregate	Diesel	5369.9653	644008.0963	56390.28	103.2988	6.23442273	4015018.714
CONTRA COSTA	2024	LDA	Aggregate	Aggregate	Gasoline	424002.7	15638010.16	1989774	453.9072	34.45199562	538760657.5
CONTRA COSTA	2024	LDA	Aggregate	Aggregate	Diesel	4766.1828	178809.3011	22364.41	4.220514	42.36671176	7575562.119
CONTRA COSTA	2024	LDT1	Aggregate	Aggregate	Gasoline	43486.313	1574810.822	199275.4	37.13842	42.40381541	66777987.42
CONTRA COSTA	2024	LDT1	Aggregate	Aggregate	Diesel	21.540584	370.3409183	71.30525	0.021395	17.30980032	6410.527345
CONTRA COSTA	2024	LDT2	Aggregate	Aggregate	Gasoline	138047.48	5107761.37	640696.3	201.6988	25.32370611	129347447.8
CONTRA COSTA	2024	LDT2	Aggregate	Aggregate	Diesel	1027.9305	42718.23482	4981.522	0.303182	140.8996384	6018983.84
CONTRA COSTA	2024	LHDT1	Aggregate	Aggregate	Gasoline	10022.063	348469.3135	149313.8	20.24829	17.20981803	5997093.476
CONTRA COSTA	2024	LHDT1	Aggregate	Aggregate	Diesel	8682.7692	315653.4193	109218.3	12.51798	25.21599604	7959515.372
CONTRA COSTA	2024	LHDT2	Aggregate	Aggregate	Gasoline	1278.1281	45708.80706	19042.2	4.319193	10.58271869	483723.4466
CONTRA COSTA	2024	LHDT2	Aggregate	Aggregate	Diesel	3036.8239	112130.3371	38199.42	5.620834	19.94905555	2236894.324
CONTRA COSTA	2024	MHDT	Aggregate	Aggregate	Gasoline	831.9285	47583.73455	16645.23	6.119883	7.775268054	369976.2912
CONTRA COSTA	2024	MHDT	Aggregate	Aggregate	Diesel	4761.3471	264391.325	45288.92	27.92589	9.467606967	2503153.151

Worker
Sum of VMT*FE (Column BI) 748487049.2
Total VMT 22542480.23
Weighted Average FE 33.20340272

Vendor
Sum of VMT*FE (Column BI) 23565493.77
Total VMT 1778297.604
Weighted Average FE 13.25171541

Haul
Sum of VMT*FE (Column BI) 4015137.705
Total VMT 644360.6679
Weighted Average FE 6.231196139

Toyota Walnut Creek Construction Assumptions

CalEEMod output file: Scenario 2 Non Residential Construction - Contra Costa County, Annual
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CalEEMod output file: Scenario 2 Residential Construction - Contra Costa County, Annual
Time stamp: Date: 11/27/2022 2:23 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Demolition (Nonresidential)	Demolition	1/1/2024	1/26/2024	5	20
	Site Preparation (Nonresidential)	Site Preparation	1/27/2024	2/9/2024	5	10
	Grading (Nonresidential)	Grading	2/10/2024	3/8/2024	5	20
	Building Construction (Nonresidential)	Building Construction	3/9/2024	1/24/2025	5	230
	Paving (Nonresidential)	Paving	1/25/2025	2/21/2025	5	20
	Architectural Coating (Nonresidential)	Architectural Coating	2/22/2025	3/21/2025	5	20
	Site Preparation (Residential)	Site Preparation	1/27/2024	1/30/2024	5	2
	Grading (Residential)	Grading	2/10/2024	2/15/2024	5	4
	Building Construction (Residential)	Building Construction	3/9/2024	12/13/2024	5	200
	Paving (Residential)	Paving	1/25/2025	2/7/2025	5	10
	Architectural Coating (Residential)	Architectural Coating	2/22/2025	3/7/2025	5	10

Trips and VMT

Phase Name	Trips per Day		Total Trips						Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Vendor Vel	Num Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Demolition (Nonresidential)	15	0	1443	10.8	7.3	20	HDT_Mix	20	300	0	1,443	3,240	0	28,860	97.58	0.00	4,631.53
Site Preparation (Nonresidential)	18	0	0	10.8	7.3	20	HDT_Mix	10	180	0	0	1,944	0	0	58.55	0.00	0.00
Grading (Nonresidential)	15	0	31972	10.8	7.3	14	HDT_Mix	20	300	0	31,972	3,240	0	447,608	97.58	0.00	71,833
Building Construction (Nonresidential)	777	310	0	10.8	7.3	20	HDT_Mix	230	178,710	71,300	0	1,930,068	520,490	0	58,128.62	39,277.18	0.00
Paving (Nonresidential)	15	0	0	10.8	7.3	20	HDT_Mix	20	300	0	0	3,240	0	0	97.58	0.00	0.00
Architectural Coating (Nonresidential)	155	0	0	10.8	7.3	20	HDT_Mix	20	3,100	0	0	33,480	0	0	1,008.33	0.00	0.00
																	0.00
Site Preparation (Residential)	8	0	0	10.8	7.3	20	HDT_Mix	2	16	0	0	173	0	0	5.20	0.00	0.00
Grading (Residential)	10	0	0	10.8	7.3	20	HDT_Mix	4	40	0	0	432	0	0	13.01	0.00	0.00
Building Construction (Residential)	95	14	0	10.8	7.3	20	HDT_Mix	200	19,000	2,800	0	205,200	20,440	0	6,180.09	1,542.44	0.00
Paving (Residential)	13	0	0	10.8	7.3	20	HDT_Mix	10	130	0	0	1,404	0	0	42.28	0.00	0.00
Architectural Coating (Residential)	19	0	0	10.8	7.3	20	HDT_Mix	10	190	0	0	2,052	0	0	61.80	0.00	0.00

Total Construction VMT (miles)
3,201,871

Total Fuel Consumption (gallons)
183,075

Construction Equipment Fuel Calculation

Source: AQ/GHG Appendix, CalEEMod Output

Toyota Walnut Creek Construction Assumptions

CalEEMod output file: Scenario 2 Non Residential Construction - Contra Costa County, Annual

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CalEEMod output file: Scenario 2 Residential Construction - Contra Costa County, Annual

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Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Week	Num Days
Demolition (Nonresidential)	Demolition	1/1/2024	1/26/2024	5	20
Site Preparation (Nonresidential)	Site Preparation	1/27/2024	2/9/2024	5	10
Grading (Nonresidential)	Grading	2/10/2024	3/8/2024	5	20
Building Construction (Nonresidential)	Building Construction	3/9/2024	1/24/2025	5	230
Paving (Nonresidential)	Paving	1/25/2025	2/21/2025	5	20
Architectural Coating (Nonresidential)	Architectural Coating	2/22/2025	3/21/2025	5	20
Site Preparation (Residential)	Site Preparation	1/27/2024	1/30/2024	5	2
Grading (Residential)	Grading	2/10/2024	2/15/2024	5	4
Building Construction (Residential)	Building Construction	3/9/2024	12/13/2024	5	200
Paving (Residential)	Paving	1/25/2025	2/7/2025	5	10
Architectural Coating (Residential)	Architectural Coating	2/22/2025	3/7/2025	5	10

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Diesel Fuel Usage
Demolition (Nonresidential)	Concrete/Industrial Saws	1	8	81	0.73	20	9,460.80	473.04
Demolition (Nonresidential)	Excavators	3	8	158	0.38	20	28,819.20	1,440.96
Demolition (Nonresidential)	Rubber Tired Dozers	2	8	247	0.4	20	31,616.00	1,580.80
Site Preparation (Nonresidential)	Rubber Tired Dozers	3	8	247	0.4	10	23,712.00	1,185.60
Site Preparation (Nonresidential)	Tractors/Loaders/Backhoes	4	8	97	0.37	10	11,484.80	574.24
Site Preparation (Residential)	Rubber Tired Dozers	1	7	247	0.4	2	1,383.20	69.16
Site Preparation (Residential)	Tractors/Loaders/Backhoes	1	8	97	0.37	2	574.24	28.71
Site Preparation (Residential)	Graders	1	8	187	0.41	2	1,226.72	61.34
Grading (Nonresidential)	Excavators	1	8	158	0.38	20	9,606.40	480.32
Grading (Nonresidential)	Graders	1	8	187	0.41	20	12,267.20	613.36
Grading (Nonresidential)	Rubber Tired Dozers	1	8	247	0.4	20	15,808.00	790.40
Grading (Nonresidential)	Tractors/Loaders/Backhoes	3	8	97	0.37	20	17,227.20	861.36
Grading (Residential)	Graders	1	8	187	0.41	4	2,453.44	122.67
Grading (Residential)	Rubber Tired Dozers	1	8	247	0.4	4	3,161.60	158.08
Grading (Residential)	Tractors/Loaders/Backhoes	2	7	97	0.37	4	2,009.84	100.49
Building Construction (Nonresidential)	Cranes	1	7	231	0.29	230	107,853.90	5,392.70
Building Construction (Nonresidential)	Forklifts	3	8	89	0.2	230	98,256.00	4,912.80
Building Construction (Nonresidential)	Generator Sets	1	8	84	0.74	230	114,374.40	5,718.72
Building Construction (Nonresidential)	Tractors/Loaders/Backhoes	3	7	97	0.37	230	173,348.70	8,667.44
Building Construction (Nonresidential)	Welders	1	8	46	0.45	230	38,088.00	1,904.40
Building Construction (Residential)	Cranes	1	6	231	0.29	200	80,388.00	4,019.40
Building Construction (Residential)	Forklifts	1	6	89	0.2	200	21,360.00	1,068.00
Building Construction (Residential)	Generator Sets	1	8	84	0.74	200	99,456.00	4,972.80
Building Construction (Residential)	Tractors/Loaders/Backhoes	1	6	97	0.37	200	43,068.00	2,153.40

Building Construction (Residential)	Welders	3	8	46	0.45	200	99,360.00	4,968.00
Paving (Nonresidential)	Pavers	2	8	130	0.42	20	17,472.00	873.60
Paving (Nonresidential)	Paving Equipment	2	8	132	0.36	20	15,206.40	760.32
Paving (Nonresidential)	Rollers	2	8	80	0.38	20	9,728.00	486.40
Paving (Residential)	Cement and Mortar Mixers	1	6	9	0.56	10	302.40	15.12
Paving (Residential)	Pavers	1	6	130	0.42	10	3,276.00	163.80
Paving (Residential)	Paving Equipment	1	8	132	0.36	10	3,801.60	190.08
Paving (Residential)	Rollers	1	7	80	0.38	10	2,128.00	106.40
Paving (Residential)	Tractors/Loaders/Backhoes	1	8	97	0.37	10	2,871.20	143.56
Architectural Coating (Nonresidential)	Air Compressors	1	6	78	0.48	20	4,492.80	224.64
Architectural Coating (Residential)	Air Compressors	1	6	78	0.48	10	2,246.40	112.32
						Construction Equipment Fuel Consumption		**55,394.42 gallons**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

South Coast Air Quality Management District. 1993. Air Quality Handbook, Table A9-3E.

Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook. Accessed October 30, 2020.

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer

Typical Construction Trailer - Contra Costa County, Annual

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	12362.4	2.9944	0.0000	0.0000	2.9944
Total		**2.9944**	**0.0000**	**0.0000**	**2.9944**

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	12,362	kWh/yr
Total Over Construction	**15,072**	**kWh**

Total Construction Schedule	
Start	1/1/2024
End	3/21/2025
Total Calendar Days	445
Years	1.22

Proposed Operation Fuel Calculation

California Air Resource Board (ARB). 2022. EMFAC2017 Web Database. Website: https://www.arb.ca.gov/emfac/2017/.

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Contra Costa
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given									*Calculations*	
Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
CONTRA COSTA	2025	HHDT	Aggregate	Aggregate	Gasoline	2.663508868	378.7737094	0.081231703	4.66288	1766.176473
CONTRA COSTA	2025	HHDT	Aggregate	Aggregate	Diesel	5484.004424	658005.2395	93.539357	7.034528	4628756.377
CONTRA COSTA	2025	LDA	Aggregate	Aggregate	Gasoline	432512.5195	15837466.96	455.2096533	34.79159	551010634.1
CONTRA COSTA	2025	LDA	Aggregate	Aggregate	Diesel	4947.44779	184047.8509	3.466946982	53.08643	9770444.026
CONTRA COSTA	2025	LDT1	Aggregate	Aggregate	Gasoline	44086.16313	1588789.645	53.7866355	29.53874	46930850.24
CONTRA COSTA	2025	LDT1	Aggregate	Aggregate	Diesel	19.97034247	347.5813181	0.013742697	25.29207	8791.052585
CONTRA COSTA	2025	LDT2	Aggregate	Aggregate	Gasoline	139344.1402	5115968.344	183.5231075	27.87643	142614913.5
CONTRA COSTA	2025	LDT2	Aggregate	Aggregate	Diesel	1090.095124	44454.44844	1.144810551	38.83127	1726222.722
CONTRA COSTA	2025	LHDT1	Aggregate	Aggregate	Gasoline	9932.084038	344406.6046	39.58722835	8.699942	2996317.607
CONTRA COSTA	2025	LHDT1	Aggregate	Aggregate	Diesel	8768.224716	316516.1606	16.69608284	18.95751	6000358.343
CONTRA COSTA	2025	LHDT2	Aggregate	Aggregate	Gasoline	1289.099861	45926.6766	5.98253535	7.676792	352569.5211
CONTRA COSTA	2025	LHDT2	Aggregate	Aggregate	Diesel	3114.271408	113771.395	6.712547783	16.94906	1928318.536
CONTRA COSTA	2025	MCY	Aggregate	Aggregate	Gasoline	20505.07958	151148.2508	4.043612369	37.37951	5649847.618
CONTRA COSTA	2025	MDV	Aggregate	Aggregate	Gasoline	96443.77037	3318699.972	147.4948025	22.50045	74672255.01
CONTRA COSTA	2025	MDV	Aggregate	Aggregate	Diesel	2524.87075	97966.13182	3.315586186	29.54715	2894620.27
CONTRA COSTA	2025	MH	Aggregate	Aggregate	Gasoline	1806.236529	16734.07002	3.30323568	5.065963	84774.18104
CONTRA COSTA	2025	MH	Aggregate	Aggregate	Diesel	804.112051	7181.851911	0.703545307	10.20809	73312.97123
CONTRA COSTA	2025	MHDT	Aggregate	Aggregate	Gasoline	859.4571732	49354.86638	9.531088763	5.178303	255574.457
CONTRA COSTA	2025	MHDT	Aggregate	Aggregate	Diesel	4911.254781	265254.2363	26.40446052	10.04581	2664694.089
CONTRA COSTA	2025	OBUS	Aggregate	Aggregate	Gasoline	291.1142192	13622.33536	2.711720671	5.023502	68431.83466
CONTRA COSTA	2025	OBUS	Aggregate	Aggregate	Diesel	143.507147	10907.71625	1.287935316	8.469149	92379.07543
CONTRA COSTA	2025	SBUS	Aggregate	Aggregate	Gasoline	76.01703625	3801.811855	0.374137168	10.16155	38632.28418
CONTRA COSTA	2025	SBUS	Aggregate	Aggregate	Diesel	1033.49851	33909.17301	3.634095078	9.330844	316401.1919
CONTRA COSTA	2025	UBUS	Aggregate	Aggregate	Gasoline	25.29262844	2469.811994	0.300548493	8.217682	20296.13003
CONTRA COSTA	2025	UBUS	Aggregate	Aggregate	Diesel	188.5118949	19053.62168	2.883693649	6.607367	125894.2673

Vehicles		
Sum of VMT*FE	**854927055.5**	
Total VMT	**28240183.53**	
Weighted Average FE	**30.2734242**	**miles/gallon**

Total VMT

Source: AQ/GHG Appendix, CalEEMod Output
Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual
Date: 11/24/2022 5:15 AM

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	718.08	648.12	539.88	1,775,615	1,775,615
Automobile Care Center	3,927.37	7,370.21	3064.88	12,550,579	12,550,579
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	394.96	89.62	28.39	873,428	873,428
Hotel	2,906.46	4,186.17	3202.89	8,807,862	8,807,862
User Defined Industrial	28.32	53.14	22.10	281,892	281,892
Total	7,975.18	12,347.25	6,858.14	24,289,377	24,289,377

	Annual VMT (miles)	Fuel Consumption	
Total VMT	24,289,377	**802,333**	**gallons per year**

Operation Natural Gas Use

Source: AQ/GHG Appendix, CalEEMod Output

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

Date: 11/24/2022 5:15 AM

Land Use	Natural Gas Use	
Apartments Mid Rise	0	kBTU/yr
Automobile Care Center	0	kBTU/yr
General Office Building	0	kBTU/yr
Hotel	0	kBTU/yr
Total	**0**	**kBTU/yr**

kBTU/yr = kilo-British Thermal Units/year

Operation Electricity Use

Source: AQ/GHG Appendix, CalEEMod Output

Scenario 2 Toyota Walnut Creek Operation (Year 2025) - Contra Costa County, Annual

Date: 11/24/2022 5:15 AM

Project Electricity Use

Land Use	Electricity Use	
Apartments Mid Rise	510,369	kWh/yr
Automobile Care Center	1,150,960	kWh/yr
Enclosed Parking with Elevator	3,590,400	kWh/yr
General Office Building	696,175	kWh/yr
Hotel	7,768,490	kWh/yr
Total	13,716,394	**kWh/yr**

kWh/yr = kilowatt-hours per year

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C.2 - Earthwork and Soil Transport Supplementary Material

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August 31, 2022

Project No.
18773.000.001

Mr. Stephen Scanlon
Toyota Walnut Creek
2100 North Broadway
Walnut Creek, CA 94596

Subject: Toyota Walnut Creek Development
Walnut Creek, California

CONSIDERATIONS FOR CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS GENERATED DURING TRANSPORT OF CONTAMINATED SOIL FROM EARTHWORK ACTIVITIES

References:

1. FirstCarbon Solutions, Unknown Date, Walnut Creek – Mixed Use Special District Project Administrative Draft Supplemental EIR, Greenhouse Gas Emissions Analysis Section 03 – 07, File Name Identified as 24440011, Received June 27, 2022.
2. Kier + Wright, October 2021, Preliminary Earthwork Exhibit, File Name Identified as 211105, Received Friday July 1, 2022.

Dear Mr. Scanlon:

As requested, we have reviewed the provided documents, References 1 and 2 listed above, in relation to the proposed Toyota Walnut Creek (TWC) Development (Site) and potential construction-related greenhouse gas emissions. We present the background of the Site, a summary of the provided documents, and considerations for greenhouse gas emissions related to transport of contaminated soil at the Site.

DRAFT

BACKGROUND

We prepared a draft phase I environmental site assessment (ESA), latest revision in December 2021, for the Site. The Site is approximately 8.5 acres and comprises 12 Assessor's Parcel Numbers (APNs), nine of which have an assigned address. The report describes that the Site was developed with commercial structures beginning in 1958, and that the Site has been largely utilized as automobile service facilities and dealerships from the 1960s through present day, with one parcel associated with an office space/storage, and one parcel (2131/2133 North Broadway) associated with a former restaurant/former carpet cleaner.

The phase I ESA describes four underground storage tanks (USTs) that were removed from 2100 North Main Street and 2105 North Broadway in 1989. Soil samples were collected below each of the four tanks, and sample results indicated that samples collected at the Tank 2 and Tank 4 locations exhibited petroleum impacts. Soil was reportedly excavated in the vicinity of Tank 2 and Tank 4 and off-hauled, though it is unclear if soil samples were collected at that time to confirm that impacts were removed. Contra Costa Health Services (CCHS) and the San Francisco Bay Regional Water Quality Control Board (RWQCB) concurred that further monitoring, investigation, or remedial action was not required based on available information and current land use (automotive repair facilities) in letters dated October 31, 1996, and December 2, 1996, respectively.

The phase I ESA also describes two limited phase II subsurface investigations completed by AEI Consultants in 2017 and 2019 for two parcels of the Site. Seven soil samples were collected from seven borings at 2100 North Broadway, and concentrations of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), and polychlorinated biphenyls (PCBs) were reported as non-detectable, while metal concentrations were reported as non-detectable or below the corresponding screening levels for a commercial land use. Five soil samples were collected from five borings at 2131/2133 North Broadway, and concentrations of TPH and VOCs were reported as non-detectable.

REVIEW OF DOCUMENTS

In Reference 1, Page 3.7-6, under the heading "Construction-related GHG Emissions", FirstCarbon Solutions (FCS) states, "approximately 249,280 cubic yards of soil would be exported during grading activities to make room for the parking garages being considered", based on a "TWC Earthwork Draft" plan set prepared by Kier + Wright dated October 2021. FCS describes that due to the automotive dealership land use, they conservatively assumed that the entirety of the planned export volume would be considered to be soil "contaminated with petroleum products" and would require disposal at the nearest off-site facility, located 232 miles from the Site.

Reference 2 indicates that preliminary excavation depths at the Site vary from 3½ to 58½ feet, and that the "total haul", or export, is 255,773 cubic yards. Comparing this to the volume described by FCS indicates a discrepancy of approximately 6,493 cubic yards.

CONSIDERATIONS FOR GHG DURING EARTHWORK

We suggest that the following considerations be given for construction-related GHG emissions estimated to be generated from potentially contaminated soil during earthwork activities at the Site:

- Land use, existing soil analytical data, and planned excavation depths should be considered when estimating the volume of contaminated soils at the Site.
    - The parcel associated with address 2150 North Broadway is associated with one commercial building that is currently vacant and associated with the following former tenants: Dick Jewelers in 1975, Tyrrell Fitness Center in 1985, Sport Health, World Gym and Aerobics from 1990 through 1995, and Metta Massage in 2005. Given the nature of the businesses, contaminated soil is unlikely to be encountered in soil beneath such tenants.
    - Two parcels, associated with addresses 2100 North Broadway and 2131/2133 North Broadway, have existing soil analytical data indicating that concentrations of TPH and VOCs were not detected in soil.
    - The planned maximum excavation depth is listed as 58½ feet; it is unlikely that the entire depth across the excavation footprint would be contaminated.
- Additional disposal facilities, particularly facilities that accept class II non-hazardous waste types, should be considered for off-site disposal of contaminated soil. For example, Keller Canyon Landfill located at 901 Bailey Road in unincorporated Contra Costa County near Pittsburg, California, accepts class II waste types and is located approximately 15 miles from the Site.

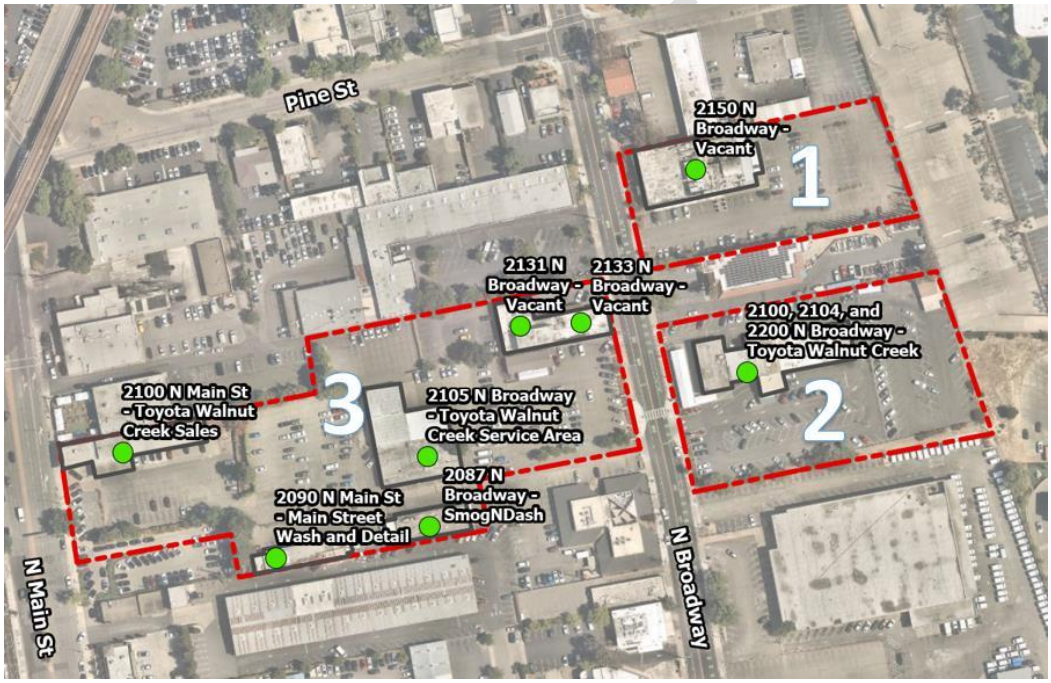
DRAFT

DISCUSSION AND CONCLUSION

Based on the findings of our phase I ESA and the considerations described above, we estimate that approximately 1,210 cubic yards of impacted, non-hazardous, soil may be present at the Site for consideration regarding construction-related GHG emissions. The soil would be assumed to be eligible for disposal at a class II waste disposal facility. Our assumptions are provided below; Exhibit 1 shows areas with arbitrarily assigned identifications for discussion.

- Area 1: 0 cubic yards (CY) of impacted soil - former gym, no USTs or other suspect features.
- Area 2: 330 CY of impacted soil - current TWC service area, 13 above-ground lifts, former UST, oil and water separator, and wash area.
- Area 3: 880 CY of impacted soil - former carpet/rug cleaner (documented soil gas impacts but no documented soil impacts), four former and two possible former USTs, 21 above-ground lifts, and seven below-ground lifts.

EXHIBIT 1: Site Boundaries and Areas



If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,
ENGEO Incorporated

Adrianna Lundberg
aml/jaa/cjn

Jeffrey A. Adams, PhD, PE

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