Appendix C

Air Quality Technical Report

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ACRONYMS AND ABBREVIATIONS

2025 Regional Plan	The 2025 Regional Plan
ADT	average daily traffic
AAQS	ambient air quality standards
ABM	activity-based model
ASFs	age sensitivity factors
ASL	above sea level
Caltrans	California Department of Transportation’s
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CPF	cancer potency factor
CVA	Chula Vista
DPM	diesel particulate matter
DVN	Otay Mesa-Donovan
DV	design values
ED	exposure duration
EIR	environmental impact report
EPA	United States Environmental Protection Agency
ESC	Escondido
ETW	Equivalent Test Weight
FAH	fraction of time at home
FHWA	Federal Highway Administration
FR	Federal Register
FSD	Floyd Smith Drive
GLC	ground-level concentrations
GVWR	gross vehicle weight rating
HARP	Hotspots Analysis and Reporting Program
HI	Hazard Indices
HQ	hazard quotient
HRA	Health Risk Assessment
IDW	Inverse Distance Weighting
KVR	Kearny Villa Road
MSATs	mobile source air toxics
NAAQS	National Ambient Air Quality Standards

OEHHA	Office of Environmental Health Hazard Assessment
PAH	polycyclic aromatic hydrocarbons
PEN	Camp Pendleton
PM_{10}	particulate matter up to 10 microns in size
$PM_{2.5}$	particulate matter up to 2.5 microns in size
POM	polycyclic organic matter
proposed Plan	San Diego Forward: The 2025 Regional Plan
PSD	Prevention of Significant Deterioration
RCD	Rancho Carmel Drive
REL	Reference Exposure Level
RH	Release Height
SANDAG	San Diego Association of Governments'
SCAQMD	South Coast Air Quality Management District
SDAPCD	San Diego County Air Pollution Control District
SES	Sherman Elementary School
SILs	significant impact levels
TACs	toxic air contaminants
TOG	Total Organic Gases
URF	Unit Risk Factor
VH	Vehicle Height
VMT	vehicle miles traveled
VOC	volatile organic compounds
ZEV	zero-emission vehicle

1 INTRODUCTION

The 2025 Regional Plan (proposed Plan) (SANDAG 2025) serves as San Diego Association of Governments' (SANDAG's) update to the Amendment to the 2021 Regional Plan for the San Diego Region (SANDAG 2023). The proposed Plan includes land use and transportation improvements to increase mobility and transportation connectivity, reduce single-occupancy passenger car travel, and provide transportation investments and a land use pattern that promotes social equity while improving air quality.

The consulting firms Ascent and BlueScape worked with SANDAG to develop a technical analysis to evaluate the potential impacts of air pollution from the proposed Plan on the region to support the proposed Plan's environmental impact report (EIR). This analysis focuses on 1) Localized Particulate Matter (PM) impacts to determine whether the proposed Plan would contribute substantially to existing violations or result in new violations of federal or state ambient air quality standards; and 2) A Health Risk Assessment (HRA) to address cancer risk and non-cancer chronic and acute risks from changes in exposure to toxic air contaminants (TACs) due to implementation of the proposed Plan. This technical report documents the approach, technical methods, and results of the air quality technical work.

In addition, an analysis was conducted to evaluate anticipated health outcomes associated with the change in PM emissions in the two future analysis years (2035 and 2050). This analysis is included as Attachment D to this report.

This technical work includes a quantitative analysis of air quality impacts associated with the project, consistent with guidance and methodology published by the San Diego County Air Pollution Control District (SDAPCD) and the South Coast Air Quality Management District (SCAQMD), guidance and tools published by the Office of Environmental Health Hazard Assessment (OEHHA), statewide guidance published by the California Air Resources Board (CARB), and federal guidance and tools published by the United States Environmental Protection Agency (EPA). Both PM and HRA modeling analyses were conducted for the existing (baseline) year (2022) and two future analysis years (2035 and 2050) for comparison to baseline conditions in the EIR.

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2 TECHNICAL METHODOLOGY

This section provides an overview of the general approach used in this analysis. It is followed by a more detailed discussion of the analysis approach to estimating emissions (Chapter 3), dispersion modeling (Chapter 4), and health risk assessment (Chapter 5).

2.1 OVERVIEW OF APPROACH

The analysis performed in this report includes the following general steps:

1. Quantify emissions for all sources of criteria pollutants and TACs associated with the proposed Plan.
2. Perform dispersion modeling for base and regional plan years to estimate ambient concentrations of particulate matter less than or equivalent to 10 microns in diameter (PM_{10}) and particulate matter less than or equivalent to 2.5 microns in diameter ($PM_{2.5}$) resulting from the operational emissions under the proposed Plan.
3. Perform dispersion modeling for base and regional plan years to estimate TAC concentrations at sensitive receptors.
4. Quantify human health risk based on exposure to the modeled TAC concentrations.

The methodologies used in these assessments are described below. This technical report focuses on the methodologies, data sources, analysis methods, and results pertaining to the Localized PM Impact Analysis (Impact AQ-4) and HRA (Impact AQ-5) in support of the analysis and findings in Section 4.3, "Air Quality," of the EIR.

2.1.1 General Parameters: Modeled Years and Cases

A baseline year and two future years were modeled for the proposed Plan: the baseline year is 2022, and the future years are 2035 and 2050.

The baseline (2022) case reflects transportation and land use conditions as of 2022, and the two Plan cases reflect forecasted transportation and land use conditions in both 2035 and 2050 under the proposed Plan. Modeling for all three cases include similar geometries and receptor grids but differ in that sources or receptor geometry could change over time due to proposed Plan implementation (e.g., if a roadway is widened or new residential land uses are developed within modeling subdomains). This way, all three model cases can be directly compared to each other.

2.2 POLLUTANTS

Air pollutants negatively impact air quality and consequently human and environmental health. The EIR analysis included emissions projections for all criteria air pollutants, with additional analysis of concentrations and risks associated with two categories of air pollutants: PM and TACs, as these are the pollutants most likely to cause significant air quality impacts under the proposed Plan. Both are described below.

2.2.1 Criteria Pollutants

This analysis address emissions projections for all criteria air pollutants associated with the proposed Plan, with additional analysis of concentrations and risks associated with two categories of air pollutants: PM and TACs. The criteria pollutants that were quantified for the mass emissions analysis, but not included in the localized PM and TAC modeling analyses, include: Total Organic Gases (TOGs), Reactive Organic Gases (ROGs), oxides of nitrogen (NO_X), sulfur oxides (SO_X), carbon monoxide (CO), and ammonia (NH_3). However, note that the TACs analysis discussed below does account for the various species (i.e., components) of TOG that have been identified as potential TACs.

2.2.2 Particulate Matter

This analysis addresses concentrations of PM resulting from the proposed Plan. PM is a complex mixture of materials that can include metals, soot, soil dust, tire wear, and brake wear. PM may be divided into many size fractions, measured in microns (a micron is one-millionth of a meter). CARB and EPA have developed air quality standards for two size classes of particles: particles up to 10 microns (PM_{10}) and particles up to 2.5 microns in size ($PM_{2.5}$). $PM_{2.5}$ particles are a subset of PM_{10} (CARB n.d.-a). The focus of this localized PM analysis is on both PM_{10} and $PM_{2.5.}$

2.2.3 Toxic Air Contaminants

This analysis also addresses incremental changes in health risk associated with incremental changes in concentrations of the TACs associated with Plan implementation. Both diesel and gasoline engines emit TACs. Diesel engine exhaust includes a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in size. Thus, DPM is a subset of PM_{10} (CARB 2016). Other TACs, described below, are emitted from diesel and non-diesel vehicles, primarily gasoline engines (EPA 2025a).

This analysis includes all mobile-source TACs listed in Table 1, for the sake of completeness and full disclosure.

Additional stationary sources that may influence incremental risks from implementation of the proposed Plan are included in the HRA, as described in Section 3.0. TAC emissions from those sources are included, based on available information, even if they are not in the list of the TACs listed in Table 1.

Other pollutants, including non-PM criteria pollutants, are not within the scope of this analysis.

Table 1 Toxic Air Contaminants from Mobile Sources

Compound	Gasoline Exhaust	Diesel Exhaust	Paved Road Dust	Tire Wear	Brake Wear
Diesel Particulate Matter		X			
1,2,3-Trimethylbenzene	X	X			
1,2,4-Trimethylbenzene	X	X			
1,3,5-Trimethylbenzene	X	X			
1,3-Butadiene	X	X			
5-Methylchrysene	X	X			
Acetaldehyde	X	X			
Acrolein	X	X			
Arsenic	X	X	X	X	X
Benz[a]anthracene	X	X	X		
Benzo[a]pyrene	X	X			
Benzo[b]fluoranthene	X				
Benzene	X	X			
Cadmium	X	X	X		X
Chrysene	X	X			
Cobalt	X	X	X		X
Copper	X	X	X	X	X
Dibenz[a,h]anthracene	X	X			
Ethyl benzene	X	X			

Compound	Gasoline Exhaust	Diesel Exhaust	Paved Road Dust	Tire Wear	Brake Wear
Formaldehyde	X	X			
Hexane	X	X			
Indeno[1,2,3-cd]pyrene	X	X	X		
Lead	X	X	X	X	X
Manganese	X	X	X	X	X
Methyl tert-butyl ether	X				
Methyl ethyl ketone {2-Butanone}	X				
Mercury	X	X	X		
Methanol	X				
m-Xylene	X	X			
Naphthalene	X	X			
Nickel	X	X	X	X	X
o-Xylene	X	X			
Propylene	X	X			
Selenium	X	X	X	X	X
Styrene	X	X			
Toluene	X	X			
Vanadium (fume or dust)	X	X	X	X	X

Source: EPA 2025a.

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3 EMISSION SOURCES

As a first step in performing this assessment, an emissions inventory was developed that includes the pollutants used in the air quality and health risk analyses, including link-based emissions for on-road mobile sources and passenger and freight rail, and source-based emissions for major stationary sources. The emissions inventory was compiled using a combination of best available and industry-accepted protocols and tools developed by CARB, EPA, and other agencies.

The analysis focused on sources of emissions that will be affected by the two components of the proposed Plan: (1) regional growth and land use changes that could modify the location of sensitive receptors (i.e., locations that may contain sensitive population groups including residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks [CARB 2005]). in the region, and (2) changes in the location and activity along the transportation network that could modify the quantity of emissions along passenger and freight corridors, as well as the changes in the emissions rate of the fleet over time. Particulate matter and TAC emissions are included from the following sources:

- On-road vehicle exhaust, which includes PM_{10}, $PM_{2.5}$, and TACs listed in Table 1.
- On-road fugitive brake wear, tire wear, and re-entrained PM_{10} and $PM_{2.5}$ road dust emissions and their associated TACs, as listed in Table 1.
- Passenger rail and freight exhaust, which includes PM_{10}, $PM_{2.5}$, and TACs.
- Selected stationary sources which may include TACs listed in Table 1 along with other TACs, as described below.

3.1 ON-ROAD SOURCES

This section discusses both exhaust and fugitive emissions from on-road mobile sources. The emissions inventory for mobile on-road sources on the regional highway and roadway networks considered parameters in SANDAG's third generation activity-based model (ABM3), such as vehicle speeds, vehicle types, and time of day (SANDAG 2025). The mobile source PM and TAC emissions inventory generally followed the following steps:

1. Extract activity data from the ABM outputs to determine vehicle activity on specific roadway segments.
2. Determine baseline PM_{10}, $PM_{2.5,}$ organic gas, and DPM emission factors from CARB's latest Emission Factor model (EMFAC2021) model representing the fleet mix described by the ABM and EMFAC2021 for the San Diego region (CARB 2021a).
3. Determine emission factors for mobile TACs from literature values, applied to PM and organic exhaust emissions, as discussed below.
4. Determine road dust PM_{10}, $PM_{2.5}$, and TAC emission factors using CARB methods (CARB 2021b).
5. Link the activity and emissions factors and develop a database of link emissions.

For both PM and TACs, the first task was to build a complete, link-based emissions inventory database for the entire San Diego region for the modeled scenario in each analysis year. SANDAG provided data for vehicular traffic on all roadway links in the ABM model in the same five daily periods simulated by the model and for the five vehicle types modeled. The output of this database is aggregated vehicle emissions by link, resolved by time period. Only direct emissions were considered; secondary pollutants[1] were not included, consistent with modeling for the previous Regional Plan.

[1] Secondary pollutants form due to chemical reaction in the atmosphere generally downwind some distance from the original emission source. AERMOD does not account for secondary formation of $PM_{2.5}$ associated with the source's precursor emissions (EPA 2022).

Speciation of TACs for vehicles was based on standard, accepted models and approaches (identified above). Exhaust, tire and brake wear, and road dust emissions were speciated. Of the TACs identified in Table 1, one applies only to diesel vehicles: DPM, which is defined as whole exhaust PM from diesel vehicles. All cancer risk from diesel exhaust is included in the OEHHA cancer potency factor for DPM; no further speciation of diesel exhaust was included for cancer risk. Likewise, chronic risk from diesel exposure is captured in OEHHA's Reference Exposure Level (REL) for diesel particulate exhaust, which was used (OEHHA 2019). Speciation of gaseous components of diesel exhaust (which are minor) could contribute to the overall acute non-cancer characterization, and were included. The remaining TACs listed in Table 1 apply to non-diesel engines, which are primarily gasoline, as well as brake wear, tire wear, and road dust emitted from on-road sources. To use a consistent source and rely on current data for speciation factors for all mobile TACs and the different vehicle and fuel types, BlueScape determined and applied speciation factors from EPA's current SPECIATE model for all mobile sources (EPA 2025a). When California-specific values with a good judgement rating were available, these values were used (EPA 2016). This represents the most current and consistent set of available data for speciation of mobile TAC emissions.

3.1.1 Road Links

The road links selected for the study include roads with higher volumes of traffic such as freeways and arterials, as the greatest air quality impacts are typically near roads with higher ADT in any given year (CARB 2005). The definition of a higher volume roadway can vary depending on road type, location, and purpose. In its 2005 *Air Quality and Land Use Handbook*, CARB recommends avoiding siting new sensitive land uses near urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day. However, several studies have reported adverse health effects associated with residential proximity to roads with average daily traffic volumes as low as 10,000 vehicles per day. In addition, in its guidance for its previous CEQA guide and roadway emissions tool, the Bay Area Air District only included roads greater than 10,000 vehicles per day in its roadway tool, stating that roadways "with less than 10,000 vehicles per day are considered minor, low-impact sources, and inclusion of these roads in CEQA evaluation is not warranted" (BAAQMD 2012).

ADT and VMT data from ABM3 for 2022 are summarized in Table 2. As shown, the majority (76.9%) of roadway links are below 10,000 ADT, and represent a small portion (18.8%) of the region's VMT. Additionally, the majority (70.5%) of roadway links are below 7,500 ADT, and represent a small portion (14.0%) of the region's VMT. Given this, the 7,500 ADT value was used as the cutoff for modeling as it incorporates more roadway links compared to a 10,000 ADT cutoff. Setting the modeling cutoff at 7,500 ADT captures most of the VMT (86.0%) and almost all of the traffic flow and ADT along freeways and arterials.

Table 2 Summary of ABM Data for the 2022 Baseline Scenario

ADT	Number of Links	Daily VMT	% of Links	% of VMT
All	40,700	78,099,414	-	-
< 7,500	28,682	10,922,525	70.5%	14.0%
< 10000	31,309	14,658,247	76.9%	18.8%
>7,500	12,018	67,176,889	29.5%	86.0%
>10,000	9,391	63,441,167	23.1%	81.2%
>50,000	1,167	33,487,630	2.9%	42.9%
>100,000	175	7,166,716	0.4%	9.2%

Source: ABM3.

Roadway links were selected to ensure the human health effects associated with the proposed Plan are comprehensively evaluated and that the links that could affect human health are modeled. To ensure that the roadway links with the highest likelihood to affect communities near roadways were included, roadway links were selected for analysis based on the following criteria:

- Every link that is a freeway (Function Class [FC] 1), Freeway Connector Ramp (FC 8), and Local Ramp (FC 9) is included.
- For all other links, if daily total flow is greater than or equal to 7,500 ADT, then that link is included.
- Lastly, if any link is located within 150 meters (500 feet) of a freeway (FC 1), then that link is included.

Roadway links were modeled as individual sources. The shape of roadway links was determined from the geospatial data provided by SANDAG and consistent with data in the ABM. Links were established as "AREAPOLY" sources in AERMOD, to represent both "straight" and "curvy" links and to ensure sufficient data is provided for both categories to model. In AERMOD these sources can be drawn at up to a 100:1 length-to-width aspect ratio. When needed, longer links (such as links that curve) were broken into small segments in a manner. A summary of the roadway links that were included in this analysis is provided in Table 3. As shown, greater than 80% of the VMT in ABM3 are included in the modeling.

Table 3 Summary of ABM Modeling Inputs for Emissions Modeling

Functional Class	Roadway Type	2022		2035		2050	
		# Links	VMT	# Links	VMT	# Links	VMT
1	Freeway	1,609	35,280,949	1,950	36,972,175	2,153	37,355,812
2	Prime Arterial	1,182	6,287,392	1,256	6,815,594	1,244	6,770,579
3	Major Arterial	5,401	11,632,580	5,568	12,358,627	5,744	12,639,057
4	Collector	2,308	3,750,124	2,300	3,513,039	2,120	3,159,694
5	Local Collector	1,554	1,514,850	1,483	1,341,288	1,481	1,324,230
6	Rural Collector	17	93,428	15	88,219	2	2,816
7	Local (non circulation element) Road	1,150	638,297	1,205	666,269	1,189	632,132
8	Freeway Connector Ramp	339	1,531,826	518	1,597,342	639	1,642,587
9	Local Ramp	1,849	2,462,814	1,916	2,486,932	1,902	2,486,317
	Total in Model	15,409	63,192,260	16,211	65,839,484	16,474	66,013,225
	Total in ABM	40,700	77,898,460	41,670	81,005,512	42,197	82,051,577
	% of ABM in Model	38%	81%	39%	81%	39%	80%

Source: ABM3.

Exhaust emissions on roadway links were calculated according to the general equation:

$$E = EF \times AD$$

where *EF* is the pollutant-, vehicle type-, and speed-specific emission factor, in grams per vehicle mile (g/mi), while *AD* is activity data, in terms of vehicle miles traveled. Emissions were calculated for all hours of the day. SANDAG provided information regarding on-road activity for determining these emissions in its ABM outputs, which describe traffic volume, vehicle types, and speeds on each link in the modeled road network. All hours within one ABM time period were assigned that period's traffic values (e.g., if the a.m.-peak in the ABM represents 6–9 a.m., those 3 hours were all assigned that period's traffic uniformly). The 3–4 p.m. hour was split between two ABM time periods; emissions were recalculated for the 3–4 p.m. hour as the time-weighted average of the emissions for those two periods.

Emissions were matched to the five vehicle types modeled by ABM and combined into an aggregated emission rate. Fuel mix for each vehicle type was based on EMFAC2021 defaults for the region. The EMFAC vehicle class breakdown by gross vehicle weight rating (GVWR), along with the mapping to ABM vehicle types is shown in Table 4 (CARB 2021c).

Table 4 EMFAC Vehicle Class Breakdown and ABM Matching

EMFAC Vehicle Type	EMFAC Description	GVWR	ABM Vehicle Type
LDA	Passenger Cars	<6000 lbs	AUTO
LDT1	Light-Duty Trucks	<6000 lbs, ETW <= 3750 lbs)	
LDT2	Light-Duty Trucks	<6000 lbs, ETW 3751-5750 lbs)	
MH	Motor Homes	-	
MCY	Motorcycles	-	
MDV	Medium-Duty Trucks	5751-8500 lbs	LHDT
LHDT1	Light-Heavy-Duty Trucks	8501-10000 lbs	
LHDT2	Light-Heavy-Duty Trucks	10001-14000 lbs	
MHDT	Medium-Heavy Duty Truck	14001-33000 lbs	MHDT
HHDT	Heavy-Heavy Duty Truck	33001-80000 lbs	HHDT
OBUS	Other Buses	-	BUS
SBUS	School Buses	-	
UBUS	Urban Buses	-	

Gross Vehicle Weight Rating (GVWR) is the maximum operating weight of a vehicle, including cargo and passengers. Equivalent Test Weight (ETW) is equal to GVWR plus one-half of the difference between the GVWR and the curb weight (i.e., weight at purchase without cargo or passengers) of the vehicle.

Source: CARB 2021c.

3.1.2 Output

The output of this emissions modeling was a database of emissions for the designated pollutants by link for all vehicle types and hours. Note that the ABM presents traffic volumes by five daily time periods. The database translated this transportation data by time period traffic into hourly outputs for use in AERMOD. This hourly data was then used as input to represent the emissions strength and temporal profile of the sources in the dispersion model.

Modeling focused on areas where impacts are reasonably expected to occur. Specifically, those with higher traffic volumes (e.g., greater than 7,500 daily flow) near both existing and proposed new communities, as discussed above. These areas were identified as part of the creation of the dispersion modeling subdomains (discussed in Section 4.2 below).

3.2 PASSENGER AND FREIGHT RAIL

The analysis included emissions from passenger and freight rail sources identified by SANDAG. Emissions were calculated based on the estimated and projected rail activity and relevant emissions factors from CARB and EPA. The analysis accounted for locomotive fleet turnover with new and cleaner engines over time. Rail sources were assigned to the model subdomain in which they are located. Light rail (Trolley) emissions were not included in this analysis because they are electrically powered.

Passenger rail service is provided by Amtrak, Sprinter, Coaster, and Metrolink. Passenger rail emissions were calculated for each rail line and each analysis year based on the number of daily and annual train trips and train miles provided by SANDAG. Fuel consumption for each line was calculated based on the estimated daily and annual train miles for each line and each rail line’s fuel economy, as reported to the Federal Transit Administration for Coaster, Sprinter, and Metrolink (DOT 2025). Fuel data for Amtrak is not reported separately for its Surfliner service; therefore, fuel consumption for Amtrak (Surfliner) was based on CARB’s assumption for passenger rail in its rulemaking documentation (CARB 2017). Emissions were calculated using EPA emission factors for locomotives based on the locomotive tier mix for each line and each year provided by SANDAG. The passenger rail sector does not include activity and associated emissions associated with the High Speed Rail. The timeline for constructing the San Diego-portion of the High Speed Rail system is unknown at this time.

Table 5 summarizes the estimated passenger line fuel consumption by line and by year under the Plan.

Table 5 Passenger Rail Fuel Consumption, Gallons per Day

Rail Line	2022	2035	2050[1]
Amtrak/Pacific Surfliner	2,662	5,324	0
Metrolink	691	2,303	0
COASTER	2,550	3,187	0
Sprinter	961	1,971	0
San Ysidro Extension[2]	-	-	0
Total	6,864	12,785	0

1 All passenger rail lines are expected to be fully electric by 2050. Thus, there is no fuel consumption.

2 The San Ysidro Extension is expected to start service by 2050.

Source: Modeling by Ascent and BlueScape in 2025.

Freight is moved via line haul and short line service, which move freight between regional and interstate designations, while switchers operate within rail yards or at the Port to move individual railcars or segments of trains, primarily to load or unload line haul trains. Freight rail emissions were quantified separately for line haul, short line, and switching activity. Line haul rail emissions were based on freight tonnage from the Freight Analysis Framework (FAF), fuel consumption reporting by Burlington Northern Sante Fe (BNSF) railroad, emission factors for locomotives from CARB and EPA, and future year locomotive fleet assumptions from CARB (Oak Ridge National Laboratory 2024, BNSF 2025, CARB 2024a, EPA 2009, CARB 2021d). Short line and switching emissions were taken directly from CARB's freight emissions model in EMFAC.

3.3 STATIONARY AND OTHER SOURCES

The proposed Plan would not directly affect the emissions strength or profile of stationary sources. However, the regional growth and land use changes component of the proposed Plan could result in land use change that could place new or relocated sensitive receptors near existing stationary sources. As a consequence of this assumption, the only influence the proposed Plan was assumed to have on incremental concentrations from stationary sources is when sensitive receptors are newly sited or relocated as a result of the proposed Plan.

BlueScape and Ascent worked with SDAPCD to evaluate which stationary sources to include in the analysis. Inclusion of stationary sources was in accordance with CARB's Toxic "Hot Spots" Program (AB 2588, 1987, Connelly). SDAPCD is required to oversee the program and to work with facilities to reduce air toxics emissions and associated health risks originating from stationary sources through a series of essential activities, including: preparing emission inventories to quantify toxic emissions, requiring HRAs to assess potential health risks, reviewing and approving HRAs, and enforcing public notification and risk reduction requirements.

BlueScape obtained stationary source HRA and modeling files for the past 10 years from SDAPCD and included only those stationary sources that are expected to contribute to incremental change in health risk due to implementation of the proposed Plan. Stationary source emissions of air toxics were considered in the HRA analysis but not PM modeling because background PM contributions are already captured in existing background monitoring data concentrations for PM.

When selecting which stationary sources to include, the following criteria were followed:

1. All facilities required to implement a Risk Reduction Plan (RRP) for their facility cancer, chronic, or acute risks were considered. RRP's are required when facilities exceed the public notification and risk reduction levels

specified in SDAPCD Rule 1210. If the RRP facilities met the criteria below, they were included in the health risk modeling.

2. Include all facilities generating a cancer risk isopleth of 5 in one million within 500 feet of links with average ADT of at least 7,500.
3. Include all facilities generating a chronic or acute hazard isopleth of 0.5 Health Hazard Index (HHI) within 500 feet of links with an average ADT of at least 7,500.
4. Any facility located within a CalEPA-designated disadvantaged community per Senate Bill 535. The CalEPA-designated disadvantaged communities in the San Diego region included the Portside Community and International Border Community. Facilities within these areas were included, regardless of the proximity of their hazard or risk isopleths to links (OEHHA 2025).

Any facilities that do not contribute risks higher than these criteria were evaluated on a case-by-case basis to determine if potential impacts, when added to other nearby stationary sources, would exceed these criteria.

The proposed Plan is not expected to affect the emissions strength or profile of these stationary sources. However, data in the form of risk reduction programs is readily available to project future emissions from stationary sources that are in a risk reduction program. A facility is obligated to prepare and execute a risk reduction plan when facility emissions increase cancer or non-cancer chronic or acute risk above incremental thresholds set forth in SDAPCD Rule 1200. Any projected reductions in cancer and/or non-cancer risk from these facilities due to their permitting requirements (i.e., many facilities must reduce emissions and associated risk per CARB permitting rules) were not quantified.

Due to lack of available information, the modeling relies on existing data, and additional emission or dispersion modeling for stationary sources was not performed for this analysis. The modeling team did not identify similar sources of concentration data from sources operating south of the US-Mexico border.

4 DISPERSION MODELING

Dispersion modeling was conducted with the emissions discussed in Section 3, *Emission Sources,* to estimate localized PM_{10}, $PM_{2.5}$, and TAC concentrations under baseline (2022) conditions and two future-year (2035 and 2050) conditions with implementation of the proposed Plan.

4.1 MODELING PLATFORM

Dispersion modeling was conducted using the most recent version of the American Meteorological Society/ Environmental Protection Agency Regulatory Model (AERMOD). AERMOD is the EPA's preferred model for near-field pollutant dispersion calculations for distances up to 50 kilometers from emission sources. AERMOD is widely used for assessing the dispersion of air pollutant emissions from stationary and mobile sources. It is a steady-state plume dispersion model that uses hourly meteorological data, local land cover conditions, and elevation data, along with spatiotemporal characterizations of emissions, to estimate air pollutant concentrations at locations that the user specifies. It also has built-in processing features that assist in evaluating concentrations of PM against the forms of the 24-hour NAAQS. The model is updated periodically to repair bugs and add enhancements based on revised understandings of the parameters impacting pollutant dispersion. The most recent version of AERMOD is Version 24142 (EPA 2025b).

4.2 MODELING SUBDOMAINS

The modeling domain consists broadly of the San Diego region that includes the majority of the population and associated transportation links. The analysis scoped down to locations or corridors where PM and/or health risk impacts may occur and the region-wide modeling domain was broken down into various subdomains to be modeled as individual cases. Areas of high traffic volumes and proximity to sensitive receptors were targeted.

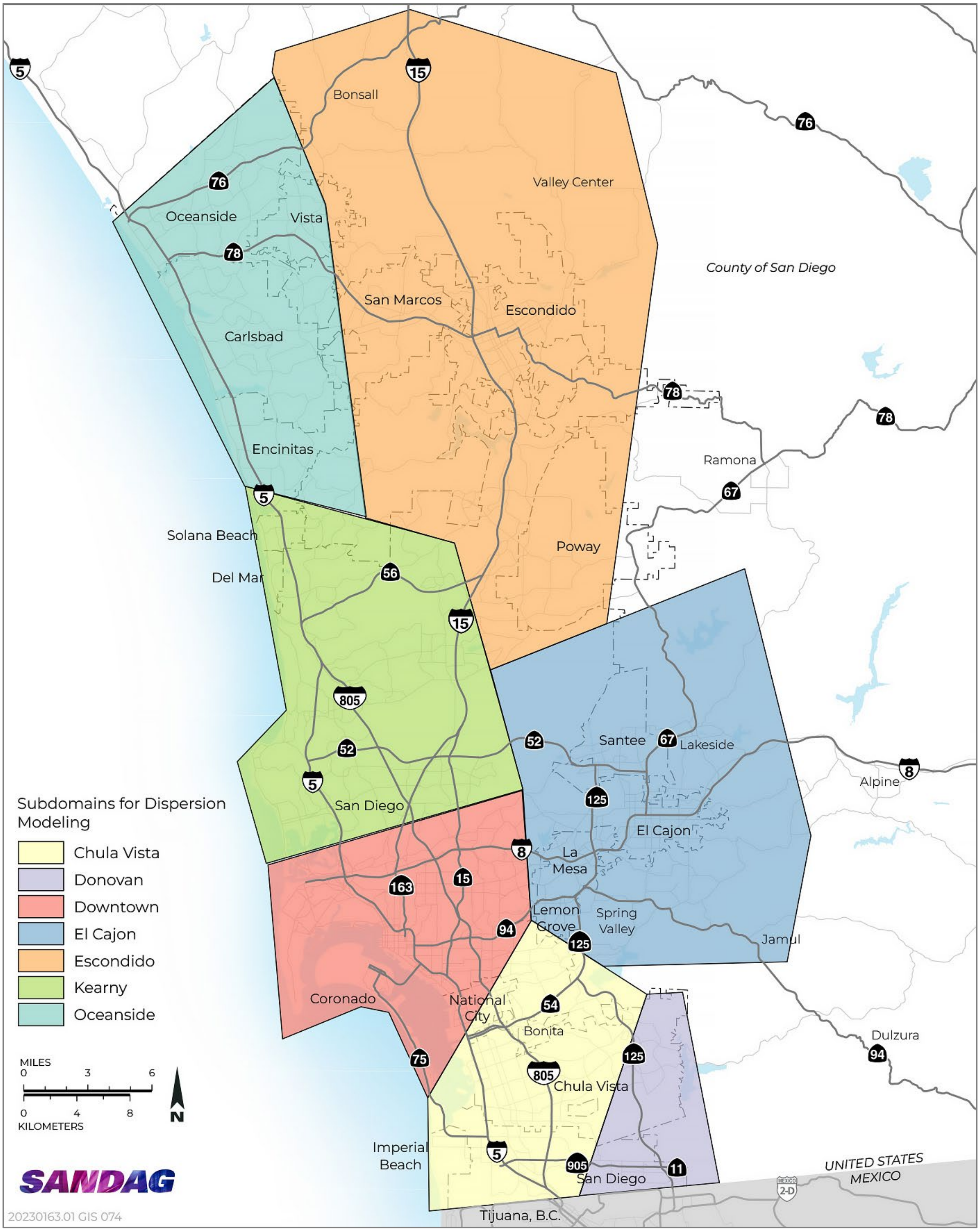
To complete modeling for the locations in San Diego County where most transportation occurs and most of the population exists, the San Diego region was divided into seven individual modeling subdomains. Each subdomain was modeled individually, focusing on the key areas identified above in each modeling subdomain. The selection of modeling subdomains was based on the available meteorological and background air quality data provided by SDAPCD. Additionally, model subdomains considered cross-border source influences (i.e., in some cases, it is possible that emission sources in one subdomain could influence receptors in another subdomain), with the goal of simplifying the treatment of each subdomain.

Each modeling subdomain includes road links (as described in Section 3.1), rail links (as described in Section 3.2) and selected stationary sources (as described in Section 3.3). Modeling subdomains are shown in Figure 1.

4.2.1 Chula Vista

This modeling subdomain covers the southwestern extent of San Diego County, south of the Downtown modeling subdomain and north of the International Border and extends from Imperial Beach along the coast to west of the Otay Mesa and Otay Port of Entry area, which is covered by the Donovan subdomain. This area is coastal and extends inland between 11 and 18 kilometers, with terrain in the eastern portion of this modeling subdomain around 160–200 meters above sea level (ASL).

The Chula Vista (CVA) station was used for meteorology and PM Design Values (DV) in this modeling subdomain.



Source: Data downloaded from SanGIS in 2025; adapted by Ascent in 2025.

Figure 1 Subdomains for Dispersion Modeling

4.2.2 Donovan

This modeling subdomain covers the area between the Chula Vista subdomain and the Otay Mountains, extending the length of San Diego County south of the Downtown modeling subdomain and north of the International Border. It stretches from Imperial Beach along the coast to the Otay Mesa area, including the Port of Entry. The subdomain includes portions of Eastlake, Otay Ranch, and Otay Mesa, as well as the Otay Port of Entry.

This is the smallest and least populated subdomain in this analysis and is between 11 and 21 kilometers from the ocean, with terrain in the eastern portion of this modeling subdomain around 160–200 meters ASL.

SDAPCD's DVN station was used for meteorology and PM DVs in this modeling subdomain. The DVN station has historically shown the highest PM DVs in the region.

4.2.3 Downtown

This urban modeling subdomain encompasses downtown San Diego, the Port of San Diego, Point Loma, Mission Valley, and Mid-City, with an eastern edge just east of San Diego State University and a southern edge following a diagonal from the Silver Strand to west of Lemon Grove. Most terrain elevations are less than 150 meters ASL. This is a primarily coastal area that extends 20 kilometers inland. This is the most populated subdomain.

SDAPCD's Sherman Elementary School (SES) station near downtown was used for meteorological data as well as for PM DVs.

4.2.4 El Cajon

This inland modeling subdomain is centered around the city of El Cajon. The terrain in this area is generally 100–300 meters ASL and features an inland valley surrounded by mountainous features.

SDAPCD's Lexington Elementary School (LES) station in El Cajon was used for meteorological data and SDAPCD's LES monitor for PM DVs in this modeling subdomain.

4.2.5 Escondido

This inland modeling subdomain along the Interstate 15 corridor generally has rough terrain with most elevations at 100–400 meters ASL. The northern edge of this modeling subdomain incorporates the Fallbrook area and abuts the county border, while the southern edge is near Poway and is intended to align with the ridge that lies between the cities of Escondido and El Cajon. This subdomain is the largest subdomain included in this assessment by land area.

SDAPCD's Escondido (ESC) station was used for meteorological data and SDAPCD's Rancho Carmel (RCD) monitor for PM DVs for this modeling subdomain. DVs from the Escondido subdomain were not available because the site closed in 2015.

4.2.6 Kearny

This modeling subdomain features coastal areas extending from Pacific Beach in the south to Solana Beach in the north, and inland communities such as Mira Mesa and Kearny Mesa surrounding Marine Corps Air Station Miramar. This modeling subdomain has coastal and inland rugged terrain, with some elevations in the eastern portion at greater than 200 meters ASL.

SDAPCD's KVR station was used for meteorology and SDAPCD's KVR monitor for PM DVs in this modeling subdomain.

4.2.7 Oceanside

The Oceanside modeling subdomain consists of the coastal region between the cities of Encinitas and Oceanside. The northern border runs along Camp Pendleton but does not include it (consistent with the analysis in the EIR for the 2021 Regional Plan [SANDAG 2021]). Most areas are within about 14 kilometers of the coast, with some substantial terrain features peaking near 200 meters above sea level (ASL).

SDAPCD's Carlsbad (CRQ) station was used for meteorology and SDAPCD's Camp Pendleton (PEN) monitor for PM DVs.

4.3 METEOROLOGY

AERMOD requires meteorological data as input for the model. These typically are processed using AERMET, a pre-processor to AERMOD. AERMET requires observed surface meteorological data, upper-air meteorological data, and surface parameter data. SDAPCD provided three consecutive years of AERMET-processed, AERMOD-ready meteorological files from SDAPCD-operated stations near or within each modeling subdomain, supplemented as needed with data from other stations, as indicated in Figure 2 and Table 6 (Canter pers. comm., 2025). These data used the latest AERMET version at the time (v24142), 1-minute-averaged wind data where available (via EPA's AERMINUTE preprocessor), and the sigma-theta AERMET option coupled with onsite measurements of turbulence. Upper-air data were from the Miramar Marine Corps Air Station (NKX). BlueScape consulted with SDAPCD on identifying meteorological data to use based on the location and record extent of the available stations from SDAPCD. BlueScape modeled every case using the most recent 3 years of data available to create an unbiased estimate of environmental conditions. Although 5 years of data is preferred, 3 years were used because the SDAPCD-provided data were selected.

Table 6 Metadata on Meteorological Stations

Modeling Subdomain	Station Metadata Name	Station Metadata Latitude	Station Metadata Longitude	Station Metadata Elevation. (meters)	Station Metadata Data Period
Oceanside	McClellan-Palomar Airport (CRQ)	33.128	-117.279	96	2019-2021
Escondido	Escondido (ESC)	33.128	-117.075	202	2010-2012
Kearny Mesa	Kearny Villa Road (KVR)	32.846	-117.124	134	2020-2022
El Cajon	Lexington Elementary (LES)	32.790	-116.944	143	2019-2021
Downtown	Sherman Elementary (SES)	32.71	-117.14	34	2020-2022
Chula Vista	Chula Vista (CVA)	32.631	-117.059	53	2018-2020
Donovan	Otay Mesa/Donovan (DVN)	32.578	-116.921	199	2019-2021

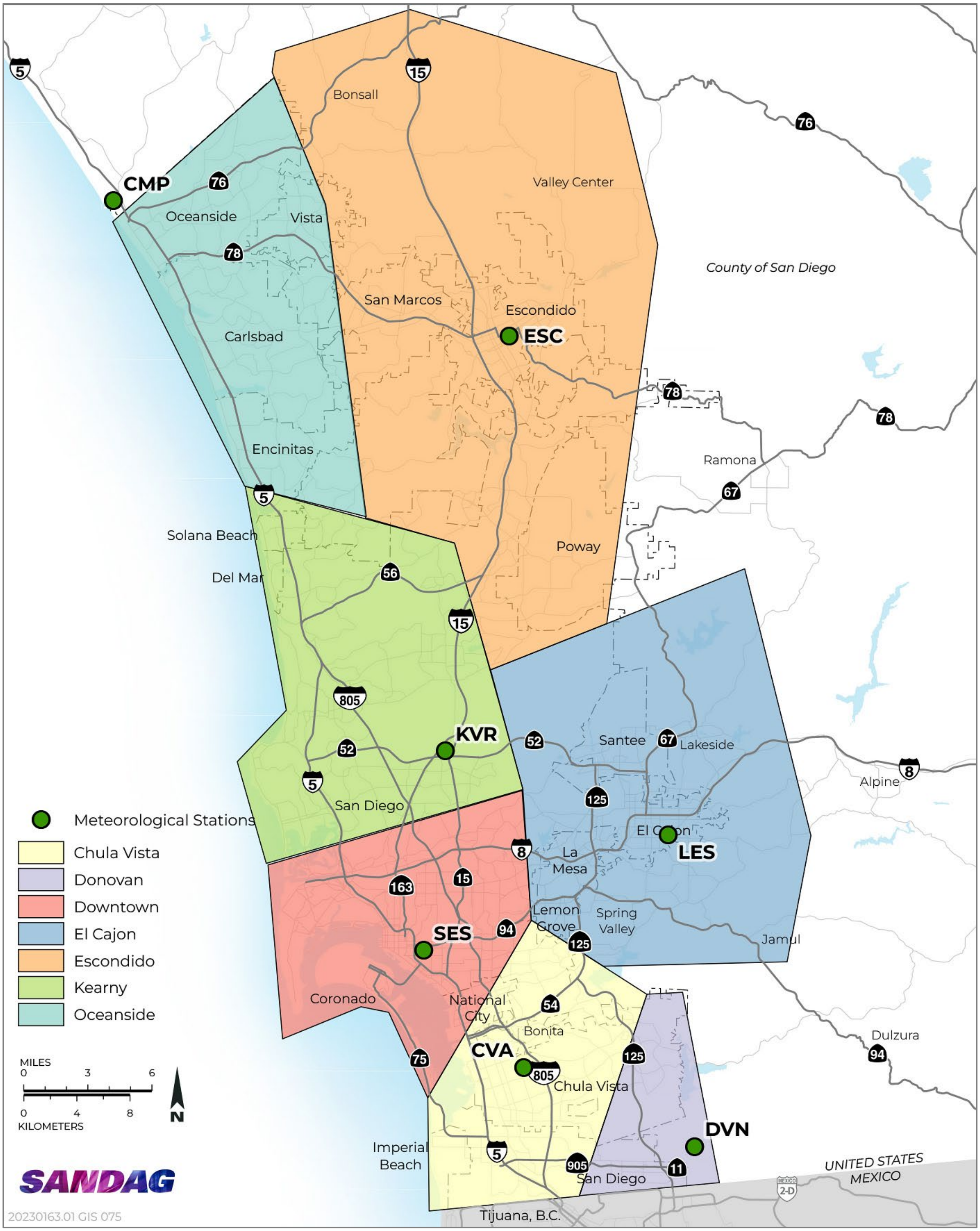
Source: Canter pers. comm., 2025.

4.4 SOURCE REPRESENTATION

A discussion related to the representation of on-road vehicle exhaust, on-road fugitive dust (brake wear, tire wear, re-entrained road dust), passenger and freight rail, and stationary sources is provided below.

4.4.1 On-Road Mobile Sources

As discussed in Section 3.1.1, roads were modeled as a series of individual links, which range from "straight" to "curvy." Most links are expected to be "straight" and are typically represented as line (LINE) sources in AERMOD per the EPA's PM Hot-Spot Guidance, specifying the coordinates of the beginning and end of each link, along with the roadway width. However, some roadways were too "curvy" to model successfully as simple line sources (which must be represented as a straight line in AERMOD). Curvy links are best modeled as polygon area (AREAPOLY) type sources. LINE and AREAPOLY sources are both types of area sources that provide similar impacts results, with the only difference being in how the location of the sources are designed. Thus, BlueScape modeled all road links as AREAPOLY sources.



Source: Data downloaded from SanGIS in 2025; adapted by Ascent in 2025.

Figure 2 Sources of Meteorological Data

SANDAG GIS staff provided coordinates defining link location centerlines. The link width was based on the number of lanes in each link and a standard lane width. For freeways, a width of 3.7 meters was assumed for each lane, with a buffer of 6 meters, consistent with EPA guidance (EPA 2021). For other road types, 3.3 meters per lane was assumed, with a 6-meter buffer. SANDAG provided the number of lanes in each link to support calculating the area of each link. Links were not paired. That is, if a north- and south-bound link from the same roadway in the same area were characterized separately in the ABM, they were modeled separately. These separate links were not combined into a single road segment.

Release heights and initial vertical dimensions followed EPA and CARB guidance (EPA 2021, CARB 2008). These parameters were aggregated, along with emissions, by link. For efficiency, road dust emissions were modeled with the same release parameters as exhaust emissions. The pollutant release timing profile was set by the ABM time bins and volumes; the HROFDAY profiles in AERMOD represented this variation in emissions throughout the day. Consistent with the ABM annualized vehicle travel information, weekday/weekend variation is not included in the release profile in the dispersion modeling.

Simulations were modeled with the same source characterization, using the resulting emissions in terms of average emissions per unit area per unit time (g/m^2-s). EMISFACT profiles defined the temporal profile, using an HROFDY variation in the traffic data.

Each road link polygon was modeled, which included activity from all vehicles, using a traffic-volume-weighted approach to calculate average vehicle height. The modeling was conducted using the source release heights and the initial vertical plume indicated in Table 7, based on default vehicle heights and formulas provided by EPA (EPA 2021).

Table 7 Characterizations of Source and Plume Height for On-Road Sources

Source Type	Vehicle Height (VH; meters)	Release Height (meters) = (VH × 1.7)/2	Initial Vertical Plume Parameter (SigmaZ; meters) = (VH*1.7)/2.15
On-road light duty (including exhaust, brake and tire wear, road dust)	1.53	1.3005	1.2098
On-road heavy-duty (including exhaust, brake and tire wear, road dust)	4	3.4	3.1628

Source: EPA 2021.

4.4.2 Passenger and Freight Rail

As daytime and nighttime activity was not available, release heights and initial vertical plume were modeled using an average of daytime and nighttime activity as indicated in Table 8 (CARB 2008: Table 4-1). CARB used these height and vertical-plume values for arriving-departing line haul, while they used much higher values for switcher activities. Rail sources were modeled as AREAPOLY sources. Source widths were taken as the physical width of the line.

Table 8 Characterizations of Source and Plume Height for Rail Sources

Source Type	Release Height (meters) Daytime	Released Height (meters) Nighttime	Released Height (meters) Average	Initial Vertical Plume Parameter (SigmaZ; meters) Daytime	Initial Vertical Plume Parameter (SigmaZ; meters) Nighttime	Initial Vertical Plume Parameter (SigmaZ; meters) Average
Switcher (rail yard)[1]	37.76	37.30	37.53	8.78	8.67	8.73
All Other Rail[2]	4.76	11.25	8.005	1.11	2.62	1.86

1 Activity Subcategory D (Switching) (CARB 2008: Table 4-1).

2 Activity Subcategory E (Arriving-Departing Line Haul) (CARB 2008: Table 4-1).

Source: CARB 2008.

4.4.3 Stationary Sources

Stationary source emissions were not directly modeled. Instead, risk from permitted stationary sources was based on data provided by SDAPCD. SDAPCD provided plot files, which summarize risk levels at specific receptor points, for each facility that met the criteria discussed in Section 3.3, *Stationary and Other Sources*. Since the specific receptor points (specific latitude and longitude) from the SDAPCD data does not perfectly match the specific receptor points assumed in the modeling for the proposed Plan, the risk values from SDAPCD were interpolated to estimate risk at the receptor points that match the proposed Plan. Then, the risk levels for these specific points were added to the risk levels from on-road mobile sources and rail, with the resultant risk levels presented as cumulative risk levels.

The interpolation method is termed Inverse Distance Weighting (IDW). The IDW method is an interpolation algorithm used extensively in air quality modeling and works best if data points are regularly (evenly) distributed throughout an area. This method assumes that values that are close to one another are more alike than those that are farther apart, and is well suited when data distribution is relatively uniform, as is the case with receptor grids, which include regularly spaced data points (receptors)

To predict a value for any unmeasured location, IDW uses the measured values surrounding the prediction location. The measured values closest to the prediction location have more influence on the predicted value than those farther away. IDW assumes that each measured point has a local influence that diminishes with distance. It gives greater weights to points closest to the prediction location, and the weights diminish as a function of distance, hence the name inverse distance weighted. Health risk values for receptors were interpolated only within the permitted source grids, where each modeled receptor was properly surrounded by the permitted receptors.

4.5 RECEPTORS

Receptors are specific locations where air pollutant concentrations are simulated in the dispersion model. The analysis includes two types of receptors: those used for the HRA and those used for PM evaluation. Those for the HRA evaluation are referred to here and in the body of the EIR as *sensitive receptors*; they represent sensitive land uses such as residences, schools, and parks. The second type, *ambient receptors,* are used to determine the ambient air quality impacts of the Plan, specifically the incremental changes of PM concentrations across the modeled areas. In practice in the dispersion modeling, the locations of both types of receptors were at the same place for both HRA and PM assessment. In the ambient air quality analysis, these locations are referred to as ambient receptors and include both sensitive receptor locations (e.g., schools, parks, or residential) and other land use types, including commercial areas as well as other locations where the public generally has access. Examples of areas where receptors are not placed include a median strip of a highway, a right-of-way on a limited access highway, or within a roadway itself (EPA 2021). In the HRA, these represent different types of sensitive receptors based on the land use in which they occur (e.g., schools, parks, or residential).

According to SDAPCD guidance, the receptor network shall be sufficient to show where public health impacts may be expected to have occurred. A fine receptor grid with 50-meter grid spacing or less shall be used in areas encompassing points of maximum cancer and non-cancer (chronic and acute) impacts. Other agencies, including CARB and SCAQMD, suggest similar receptor spacing for areas where the maximum risk effects are expected, such as near roadways (CARB 2005, SCAQMD 2025).

CARB guidance states that risk associated with exposure to roadways is most noticeable within the first 500 feet of the roadway, as concentrations of traffic-related pollutants decline with distance, primarily beyond 500 feet (CARB 2005). However, to ensure a comprehensive and conservative assessment, this analysis includes the evaluation of additional receptors beyond the first 500 feet.

The receptor grid used in this analysis follows the following logic:

- For links over 100,000 ADT and any freeway and freeway ramp, there are two layers of receptor spacing:
    - A fine grid of 50 meter spacing, out to 500 ft (150 meters) from the roadway.

  - A coarser grid of 250 meter spacing between 150 meters and 1,000 meters from the roadway.
- For smaller non-freeway links greater than 7,500 ADT but less than 100,000 ADT:
  - A fine grid of 50 meter spacing, out to 500 ft (150 meters) from the roadway.

The locations of receptors on this grid must be consistent across all runs to support increment calculations. The "edge" of the modeling area is defined as the closest area of public access to the facility and represent the "fenceline" of the project area. School and park receptors are represented using this same grid approach. The receptor grid was overlaid with the land use GIS data to assign each receptor point a land use type for each analysis year (2022, 2035, 2050).

All sources must be modeled with the same set of receptors across the model runs, to ensure the incremental change in exposure can be accurately calculated. The locations of receptors were set based on land use GIS files provided by SANDAG.

The number of receptors included in the modeling runs are summarized in Table 9. There are more receptors for the PM runs because this modeling accounts for receptors that represent areas of public access (e.g., commercial areas, bike paths, sidewalks), whereas the HRA runs are meant to estimate health risk at actual sensitive receptor locations (e.g., schools, parks, or residential).

All sensitive receptors were modeled at ground level (i.e., flagpole receptors at 0-meter height), consistent with EPA guidance as well as SCAQMD guidelines (EPA 2021, SCAQMD 2025). SDAPCD guidelines do not include guidance on receptor heights.

Note that these sensitive receptors represent land use, not necessarily the "density" of a land use. That is, a residential sensitive receptor indicates that the land around that sensitive receptor is used for residential purposes (possibly among others); however, it does not indicate how many people live at that residence. Please note residential sensitive receptor locations in the dispersion modeling generally represent areas where residential units are located. These sensitive receptor locations do not represent specific houses. The health risk values presented here were used to characterize incremental health risk, and the values are independent of the population in these areas. This is explained further with the scope of the HRA in Chapter 5, Estimating Health Risks.

Table 9 Number of Modeling Receptors, by Modeling Subdomain

Modeling Subdomain	Particulate Matter	Health Risk
Chula Vista	47,057	28,635
Donovan	12,269	4,660
Downtown	54,483	26,517
El Cajon	56,096	33,593
Escondido	83,943	46,968
Kearny	72,027	38,513
Oceanside	59,327	33,978
Total	**385,202**	**212,864**

Source: Modeling by Ascent and BlueScape in 2025.

4.6 OTHER MODEL SPECIFICATIONS

All other model inputs were consistent with regulatory applications of AERMOD, consistent with guidance from SDAPCD (SDAPCD 2022).

The modeling was performed using the version of AERMOD current at the time of modeling (24142) to conduct all dispersion analyses. Modeling included only model regulatory default (DFAULT) options except for use of flat terrain (FLAT), as appropriate. However, the FASTAREA computation method, which optimizes model runtime for area type sources through a hybrid approach, was used to speed calculations. As mentioned in Section 4.3, the meteorological data obtained from SDACPD were processed with 1-minute-averaged wind data where available (via EPA's AERMINUTE preprocessor), the sigma-theta AERMET option coupled with onsite measurements of turbulence, and typically with substitutions of missing temperature and cloud cover values.

SDAPCD guidance for HRAs recommends rural dispersion throughout the San Diego region except on a case-by-case basis (SDAPCD 2022). This is not appropriate for the proposed Plan's subdomains because of the urban nature of much of the modeling areas, primarily near the more heavily traveled transportation corridors in areas with higher population density. For this reason, the urban dispersion coefficient was selected for all subdomains. Each modeling subdomain was assigned to an urban population that is representative of that subdomain. A summary of population and area for each modeling subdomain is shown in Table 10. As shown, the population density for the County as a whole is much lower than each of the modeling subdomains.

Table 10 Modeling Subdomain Statistics

Modeling Subdomain	2022 Population in Modeling Subdomain	Area in Modeling Subdomain (km^2)	Population Density (population per km^2)
Chula Vista	500,410	234	2,139
Donovan	74,022	97	764
Downtown	628,534	281	2,237
El Cajon	497,074	530	938
Escondido	524,804	959	547
Kearny Mesa	510,449	403	1,267
Oceanside	465,341	350	1,330
Outside of Modeling area	240,446	8,178	29
Countywide Total	3,441,080	11,032	312

Source: Population GIS data provided by SANDAG along with Ascent and BlueScape Modeling in 2025.

HRA applications were conducted, writing peak 1-hour average concentrations and PERIOD average concentrations to separate PLOTFILES. PM files wrote both PLOTFILES and RECTABLES to record National Ambient Air Quality Standards (NAAQS)-appropriate values processed by AERMOD. The reporting form of the 24-hour PM_{10} and annual $PM_{2.5}$ concentrations is different between California Ambient Air Quality Standards (CAAQS) and NAAQS. The analysis evaluated both the NAAQS and CAAQS values with their respective forms. Separate AERMOD runs were conducted to produce the different values, as described below.

4.7 BACKGROUND CONCENTRATIONS DATA

Background concentrations were not included in any AERMOD simulation. Background is important for the establishment of cumulative risk, but not incremental risk (Chapter 5). It is also relevant for the PM thresholds (Section 6.1). Both are discussed below.

San Diego is currently designated nonattainment for both the $PM_{2.5}$ CAAQS and the PM_{10} CAAQS (CARB 2023). There is both a 24-hour and annual PM_{10} CAAQS but only an annual $PM_{2.5}$ CAAQS. For PM_{10}, both averaging periods must be below the applicable standards for a region to be considered in attainment (CARB 2024b). The most recent 3 years of recorded background concentrations (the 2021–2023 period) show exceedances of both the 24-hour and annual PM_{10} CAAQS at more than one monitor location, and an exceedance of annual $PM_{2.5}$ CAAQS at the Donovan monitor location. The 24-hour PM_{10} NAAQS was exceeded at the Donovan station only. The 24-hour $PM_{2.5}$ NAAQS was not exceeded at any locations, based upon the 98th percentile concentration averaged over 3 years. The annual average (3-year average) $PM_{2.5}$ NAAQS was exceeded at the Chula Vista, Donovan and Sherman monitors. No other violations of the PM NAAQS have been measured (CARB n.d.-b)

Background PM_{10} and $PM_{2.5}$ monitoring data was provided by SDAPCD (Canter pers. comm., 2025). Monitoring data was provided for all stations within the County with complete data. Based on these datasets, stations were assigned to each subdomain based on location. In each case, the monitoring station is located within the modeling subdomain. This monitoring data was used to compute the PM thresholds to be used for this evaluation, which are discussed in Section 6.1, *Particulate Matter Thresholds*.

The monitoring data is summarized as Design Values (DV). A DV is a statistic that describes the air quality status of a given location relative to the level of the NAAQS or the CAAQS. The DV for each pollutant is calculated from monitor data in a form consistent with the regulations that apply to the CAAQS or NAAQS, in terms of the pollutant averaging period and number of exceedances allowed over a period typically of three years. The DVs used in this analysis were provided by SDAPCD for the 2022-2024 period (Canter pers. comm., 2025).

Table 11 presents the assignment of PM monitors and 2022-2024 DVs to each modeling subdomain. Table 12 provides the metadata for each of the PM monitors chosen. Figure 3 shows the locations of the PM monitors described.

Table 11 Assignments of Monitors and Design Values (in micrograms per cubic meter) for Particulate Matter for each Modeling Subdomain

Modeling Subdomain	Monitor	NAAQS			CAAQS		
		$PM_{2.5}$		PM_{10}	$PM_{2.5}$	PM_{10}	
		Annual (9.0)	24hr (35)	24hr (150)	Annual (12)	Annual (20)	24hr (50)
Oceanside	CMP	8.0	17	57.0	7.7	20.9[1]	95.0[1]
Escondido	RCD	7.4	16	48.6	7.7	20.0[1]	53.5[1]
Kearny	KVR	7.3	17	51.0	8.0	21.7[1]	64.9[1]
El Cajon	LES	8.9	18	45.8	9.2	22.3[1]	47.5[1]
Downtown	SES	9.1[1]	19	46.3	9.6	22.9[1]	64.3[1]
Chula Vista	CVA	9.0[1]	19	51.0	9.9	24.5[1]	57.9[1]
Donovan	DVN	13.2[1]	28	156[1]	13.8[1]	44.8[1]	243.0[1]

Notes: PM = particulate matter; PM_{10} = PM with aerodynamic diameter less than or equal to 10 micrometers; $PM_{2.5}$ = PM with aerodynamic diameter less than or equal to 2.5 micrometers; DV = design value; CMP = Camp Pendelton; RCD = 11403 Rancho Carmel Drive; KVR = 6125A Kearny Villa Road; LES = Lexington Elementary School; SES = Sherman Elementary School; CVA = 80 E. J Street Chula Vista; DVN = Donovan Correctional Facility.

1 Values that exceed the standard.

Source: Canter pers. comm., 2025.

Table 12 Metadata on Monitoring Stations for Particulate Matter

Modeling Subdomain	Name	Latitude	Longitude	Elevation (meters)
Oceanside	Camp Pendleton (CMP)	33.217	-117.396	16
Chula Vista	Chula Vista (CVA)	32.631	-117.059	55
Donovan	Donovan (DVN)	32.578	-116.921	199
Kearny	Kearny Villa Road (KVR)	32.846	-117.124	134
El Cajon	El Cajon (LES)	32.790	-116.944	143
Downtown	Sherman Elementary (SES)	32.710	-117.140	34
Escondido	Rancho Carmel Drive (RCD)	32.98544	-117.082	218

Source: Canter pers. comm., 2025.

4.8 OUTPUTS

4.8.1 Particulate Matter

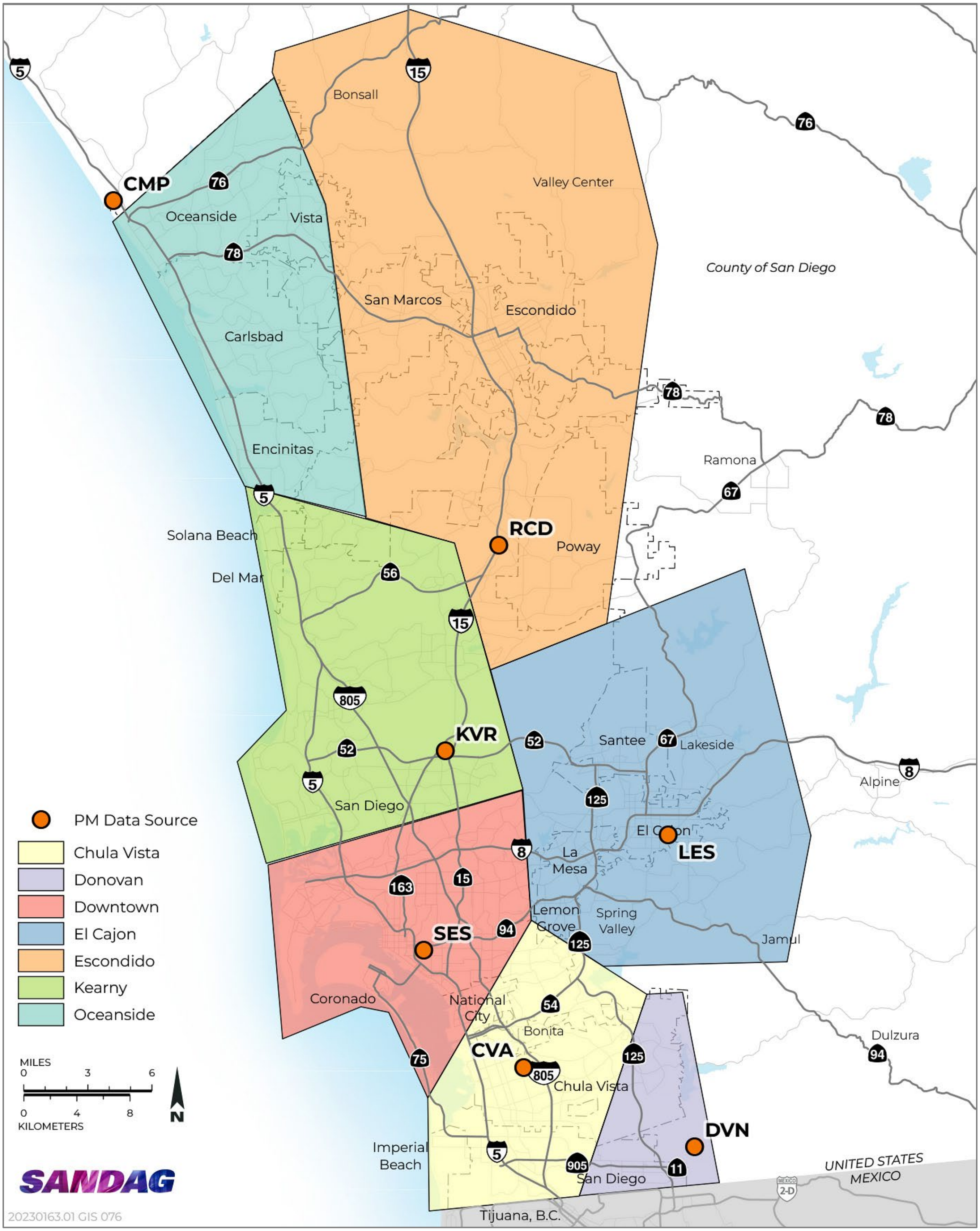
For $PM_{2.5}$ modeling, AERMOD was used to determine the 24-hour-average NAAQS DVs, specifically the highest multi-year average of the 98th percentile 24-hour $PM_{2.5}$ concentrations, which equates to the multi-year average of the annual eighth-highest 24-hour values. This was estimated in AERMOD by setting the AERMOD keyword POLLID to $PM_{2.5}$ and the output rank to 8th, which outputs the multi-year average of the annual eight-highest 24-hour values at each ambient receptor. For $PM_{2.5}$ annual standards, each year of meteorological data was modeled separately with annual-average outputs, so the maximum annual concentration at each ambient receptor for the CAAQS DV and the multi-year-average annual concentration at each ambient receptor for the NAAQS DV could be identified.

For PM_{10} modeling, AERMOD was used to determine the 24-hour-average NAAQS DVs. The 24-hour NAAQS is violated when the 24-hour-average concentration exceeds the standard more than once per year on average over 3 years, such that the DV equates the High-N+1-High value of 24-hour-average concentrations over N years. In AERMOD, this DV was output by setting the POLLID to PM_{10} and the output rank to 4th, because there are three years of meteorological data in the model runs. For the 24-hour CAAQS, AERMOD was used to determine the highest 24-hour-average concentration in the 3-year modeling period, which was used as the CAAQS DV. However, this is a conservative estimate because the CAAQS form refers to 1 year of analysis rather than 3 years (i.e., the highest 24-hour-average in 1 year rather than across 3 years). For the PM_{10} annual CAAQS, each year of meteorological data was modeled separately with annual-average outputs, so that the maximum annual concentration could be identified at each ambient receptor for the CAAQS DV.

These DVs were compared against PM thresholds, as described in Section 6.1.

4.8.2 Health Risk Assessment

AERMOD was used to estimate maximum 1-hour-average TAC concentrations (for acute assessment) and period-average TAC concentrations (for chronic non-cancer and cancer assessment) at each sensitive receptor for the 3-year modeling period. These AERMOD outputs were used to estimate cancer and acute and chronic non-cancer health risks for each sensitive-receptor type and modeling subdomain (Chapter 5).



Source: Data downloaded from SanGIS in 2025; adapted by Ascent in 2025.

Figure 3 Sources of Design Values for Particulate Matter

5 ESTIMATING HEALTH RISKS FROM TACS

The health risks associated with pollutant exposure were estimated by translating pollutant exposure concentrations from AERMOD modeling into health risk impacts, then estimating the incremental health risk impacts from Plan implementation. Both incremental and cumulative health impacts were evaluated from the proposed Plan. Incremental risks are evaluated for cancer, acute non-cancer, and chronic non-cancer endpoints. Only cancer health impacts were evaluated for cumulative risks. The exposure parameters used to estimate excess lifetime cancer risks and non-cancer Hazard Indices (HI) for all potentially exposed populations are consistent with updated risk assessment guidelines from OEHHA. This section summarizes the methods and tools used to estimate health risks from exposures to TACs associated with the proposed Plan.

5.1 QUANTITATIVE RISK ASSESSMENT

As discussed in Section 2.2, health risks associated with the proposed Plan were estimated for the TACs listed in Table 1. Exhaust emissions, road dust, and tire and brake wear were speciated for TACs.

TACs can result in a variety of health impacts. Health impacts are typically classified as carcinogenic and non-carcinogenic. The severity of these adverse health impacts from TACs is typically based on the toxicity of the compound and the level of exposure. The current Consolidated Table of OEHHA / CARB Approved Risk Assessment Health Values, along with the Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, were used to estimate the short- and long-term health impacts from exposure to the pollutants emitted from the operation of the road network and selected additional sources influenced by or expected to have compounding effects on the road emissions from the proposed Plan (see above discussion on emissions modeling) (CARB 2025, OEHHA 2015). All health values and metrics were consistent with those embedded in the HARP2 tool, but risk values were estimated outside of the HARP2 model to allow for more flexibility and to streamline the modeling. Initial results were reviewed to ensure they match results from HARP2 (CARB 2022).

The HRA includes a multi-pathway health risk assessment, where any TACs with multi-pathway risks included a multi-pathway factor, per SCAQMD guidance (SCAQMD 2024). Multi-pathway health risk refers to the potential for health risks arising from exposure to a TAC through multiple routes of entry into the body (e.g., inhalation, ingestion, dermal contact).

Incremental carcinogenic, acute non-cancer, and chronic non-cancer risk were assessed. The exposure parameters used for estimating excess lifetime cancer risks and non-cancer Hazard Indices (HI) for all potentially exposed populations are consistent with updated risk assessment guidelines from OEHHA (OEHHA 2015).

5.2 GROUND LEVEL CONCENTRATIONS

Ground Level Concentrations (GLC) for all TACs were based on the output of the air dispersion modeling, conducted with AERMOD, as described under Section 4, above. TAC concentrations were determined from AERMOD outputs as described above. TAC concentrations were calculated by scaling the AERMOD master pollutant from output PLOTFILE files to GLCs for each TAC. Each TAC is listed as a percent of a master pollutant in EPA's SPECIATE model. For instance, metal TACs have PM as a master pollutant, while organic TACs have TOG as a master pollutant. These TAC speciation factors are source (e.g., gasoline exhaust, diesel exhaust, paved road dust, tire wear, and brake wear) dependent, as shown in Table 1.

Incremental risk from the proposed Plan is reported by receptor for each analysis year. Incremental risk is then computed as the difference in risk values between existing (2022) and proposed Plan cases (2035, 2050) at each receptor.

5.3 RISK ANALYSIS

Risk was first calculated using GLCs to conservatively assess cancer, non-cancer acute, and non-cancer chronic risks for the existing and proposed Plan cases. In each case, lifetime residential cancer risks are based on an assumed 30-year exposure to the level of contaminants associated with the proposed Plan. Non-residential risks were derived similarly, with different exposure parameters and limited to school sensitive receptors. An exposure duration of 13 years was used for schools. This 13-year duration represents K–12 schools and is consistent with the approach OEHHA recommends for offsite workers (OEHHA 2015). This is a conservative estimate for other schools, such as K–5, as it assumes exposure will occur at the same location even if the student is at a different location for grades 5–12. However, this allows for the modeling to treat all schools identically. All exposures were assumed to begin in the third trimester and include OEHHA's age sensitivity factors (ASFs). All cancer risk calculations include Risk Management Policy (RMP), using OEHHA's Derived Method intake rates. Fraction of time at home (FAH) for residential receptors was set to 1 for ages less than 16 years for cases where a school lies within a 1 per million cancer isopleth of the site. For school receptors, the fraction of time exposed was 12 percent (6 hours per day, 180 days per year) for all exposed ages starting at age 5. The modeling did not identify or model preschools. All other inputs were defaults consistent with HARP2 and based on guidance from OEHHA (CARB 2022, OEHHA 2015).

Non-cancer risks are based on the same set of pollutants and exposure parameters as described above. Note that this analysis does not include the evaluation of occupational cancer risk or 8-hour chronic HI, because 8-hour chronic HI is only assessed for occupational uses, consistent with the requirements set forth in SDAPCD Rule 1210 (SDAPCD 2025).

5.3.1 Carcinogenic Effects

Excess lifetime cancer risks are estimated as the increased likelihood that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). Cancer-risk ASFs are included to account for an anticipated special sensitivity to carcinogens of infants and children.

Consistent with both OEHHA and SDAPCD guidance, cancer increments were estimated using a 30-year continuous exposure to the level of emissions associated with the proposed Plan in a given year. This is true for each of the two modeled Plan years and the baseline (2022) at a given location. For example, the cancer risk associated with the year 2035 is estimated as 30 years of exposure to the 2035 level of emissions. The incremental risk for 2035 is based on 30-years of exposure at 2035 levels minus the risk from 30 years of exposure at the existing (2022) levels of emissions. These incremental risks are then compared to the incremental cancer risk thresholds (Section 6.2). The 30-year exposure applies only to the residential and recreational exposure scenarios. For the school scenario, an exposure duration of 13 years was used, although the same mathematical construct applies. See Section 5.3 for more detail on exposure settings.

Section 7.3, *HRA,* provides results for incremental changes in cancer risk and cumulative cancer risk for each Plan year.

5.3.2 Non-Carcinogenic Effects

The potential for exposure to result in chronic non-cancer effects is evaluated by comparing the estimated annual-average air concentration to the chemical-specific non-cancer chronic RELs, using HARP. Acute non-cancer effects utilize the peak 1-hour air concentration in comparison with the acute RELs. When calculated for a single chemical, the comparisons yield a ratio termed a hazard quotient (HQ). Consistent with OEHHA guidance, to assess the potential for adverse non-cancer health effects from simultaneous exposure to multiple chemicals, the chronic or acute HQs for all chemicals are summed for each target organ system, yielding an HI. Conservatively, HI values were reported for the most impacted organ system. Non-cancer chronic HIs utilized the period average concentrations from AERMOD. Non-cancer risks relied on the same sources and pollutants identified earlier.

Incremental changes in chronic and acute HI were reported, similar to those discussed for cancer end points. Note that there is no quantitative evaluation of cumulative non-cancer impacts due to a lack of data on background non-cancer risks.

5.4 EXPOSURE SCENARIOS ASSESSED

For a given ambient concentration of pollutant, the potential for adverse health effects is a function of the types of persons exposed (e.g., adults, children, pregnant women) and the duration and extent of exposure. Based on guidance from the most recent version of the *Air Toxic Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* dated February 2015 (OEHHA 2015), health impacts were assessed for Residential, School, and Recreational exposure scenarios.

5.4.1 Residential

For residential sensitive receptors, lifetime cancer risks were conservatively based on an assumed 30-year exposure duration (ED) to TAC air concentrations with exposure beginning in the third trimester. All HRA modeling was performed with HARP and included OEHHA's ASFs, as appropriate, and OEHHA-derived inhalation rates (i.e., 95^{th} percentile inhalation rate).

OEHHA guidance suggests that the FAH for residential sensitive receptors be set to 1 for ages less than 16 years for cases where a school lies within a 1 per million cancer isopleth. This assessment conservatively used an FAH of 1 for ages less than 16 for all residential sensitive receptors, regardless of school location. All other inputs were HARP default values for inhalation exposure.

Non-cancer risks for the resident scenario were based on the relevant exposure parameters described above.

5.4.2 School

To assess health effects on sensitive receptors, a K-12 student scenario was evaluated. To assess cancer risks for the school scenario an ED of 13 years was used, with exposure beginning at age 5. For school sensitive receptors, the fraction of time exposed was set to 12% (6 hours per day, 180 days per year) for all exposed ages starting at age 5. Preschools were not assessed.

Non-cancer risks for the school scenario were based on the relevant exposure parameters described above.

5.4.3 Recreational

To assess cancer risks for recreational sensitive receptors, the ED was set to 30 years and the fraction of time exposed was set to 4% (2 hours per day, 180 days per year), assuming the average amount of time spent daily in such locations.

Non-cancer risks for the recreational scenario were based on the relevant exposure parameters described above.

5.5 RISK ESTIMATION METHODS

Calculation methods within the current version of CARB's HARP model (version 22118) were used to estimate the short- and long-term health impacts from exposure to the pollutants emitted from the operation of the road network and selected additional sources influenced by or expected to have compounding effects on the road emissions from the proposed Plan.

Estimated GLCs (discussed below) were used as inputs to calculate cancer, non-cancer acute, and non-cancer chronic health endpoints, for each modeled sensitive receptor in each modeled subdomain, for each assessed year, and for residential, school, and recreational sensitive receptors.

5.5.1 Ground-Level Concentrations

GLCs for all TACs were based on the output of the air dispersion modeling for on-road and rail sources, conducted with AERMOD, as described in Chapter 4. The AERMOD modeling resulted in GLCs for PM_{10}, $PM_{2.5}$, and TOG at each receptor location. The AERMOD output files expressed the largest hourly concentration at each sensitive receptor in the multi-year modeling (for use in acute risk assessment) and the multi-year-average concentration at each sensitive receptor (for use in chronic non-cancer and cancer risk assessment) of these pollutants, which are input to the HARP-equivalent calculations. All The list of TACs evaluated are shown in Table 1 above.

5.5.2 Stationary Sources

The proposed Plan has the potential to place new sensitive receptors at locations that previously were uninhabited and potentially in areas with high levels of pollutants due to nearby stationary sources. Risk was assessed from both the on-road and rail sources directly affected by the proposed Plan, and indirectly from nearby stationary sources for all sensitive receptors.

Stationary source HRA data obtained from SDAPCD were used to estimate chronic non-cancer and cancer risks from stationary sources within the modeling subdomains. SDAPCD provided health risk modeling files, which were interpolated into the health risk modeling analyses (Wong pers. comm., 2025). The health risk modeling files provided by SDAPCD included plot files with generated health or hazard risk values at individual receptors. For assessing stationary source contributions to Project cancer risk impacts, the 30-year residential cancer risk isopleths were used from the selected SDAPCD provided stationary source HRAs. For non-cancer risk impacts, the 1-hour acute and residential chronic health hazard index isopleths were used from the SDAPCD provided stationary source HRAs. Because the location of the SDAPCD-provided stationary source HRA receptors was not the same as the receptor grid used in the Project HRA, the stationary source risks were interpolated to the Project receptor grid by bilinear interpolation. The resultant risk values generated from the stationary sources on the proposed Plan's receptors were added to the stationary source modeled health risk values at each receptor in the vicinity of each stationary source. The same stationary source risk values were used for all plan years modeled. This is a conservative approach because facilities that generate significant health risks are required to implement Risk Reduction Plans to lower their health risk impacts below regulatory thresholds. Therefore, it is likely that those facilities that implement their RRP will generate lower health risks in future plan years.

5.5.3 Incremental Health Risk Estimation

Incremental cancer risk, chronic hazard, and acute hazard vales are computed as the difference in risk values between the assessed plan year and the existing year for each sensitive receptor. For mobile source risks (i.e., risks associated directly with Plan emissions), incremental risks are calculated as:

$$Mobile\ incremental\ risk = Plan\ year\ risk - 2022\ risk$$

In estimating total risk, risk from mobile sources (on-road plus rail) is added to the stationary source risk. This is only performed for cancer risk. This analysis accounted for the potential for the Plan to result in new sensitive receptors relocated to areas of high concentrations of stationary source pollutants by adding stationary source risks to those mobile source risks to estimate a "total" incremental risk at a given sensitive receptor location:

$$Total\ incremental\ risk = (Plan\ year\ risk + stationary\ risk) - (2022\ risk + stationary\ risk)$$

In cases where a sensitive receptor exists in both the Plan year and the existing year (i.e., 2022), stationary source risks, which are constant across the years assessed, cancel out as can be seen in the total incremental risk formula above. Stationary source risks, therefore, only affect the total incremental risk in cases where a sensitive receptor “turns off” (e.g., receptor exists in 2022, but not in the Plan year, as a residential, school or park use is designated as a non-sensitive receptor use, such as commercial retail in the Plan years) or “turns on” (receptor does not exist in 2022 but does exist in the Plan year, such as an existing parking lot or vacant area becoming residential, school or park use in the Plan years). In the first case, where a sensitive receptor “turns off,” a sensitive receptor exists in 2022, but is not a sensitive receptor in a Plan year, resulting in a negative incremental risk. However, when a sensitive receptor “turns on,” the total risk from the baseline 2022 year is zero, leaving the sum of the Plan year risk and stationary source risk as the total incremental risk. In this situation, the incremental risk is equal to the “total” risk (Plan plus stationary source).

The summary results distinguish between risks that arise from existing sensitive receptors (receptors that exist in 2022) and risks that arise from new sensitive receptors (receptors that do not exist in 2022 but exist in the subsequent Plan years).

5.5.4 Cumulative Health Risk Estimation

SDAPCD does not define a cumulative heath risk threshold and does not provide existing or expected cumulative risk values across the San Diego region to use in assessing cumulative health risk for the proposed Plan. Instead, cumulative health risk impacts were estimated by combining the health risk increment from the proposed Plan along with the interpolated stationary source risk values described above.

The cumulative risk was computed at each modeled location in each year as:

$$cumulative\ cancer\ risk = \text{stationary risk} + mobile\ incremental\ risk$$

The first term is based on the risk interpolation discussed above and includes the risk for stationary sources at the same receptor locations used to evaluate the proposed Plan’s mobile sources. The mobile source cancer risk increment from the proposed Plan (project year minus existing), as discussed in Section 5.4.3, *Incremental Health Risk Estimation*.

Note that the cumulative assessment is not an incremental evaluation. It is an estimate of the total risk from all sources in each modeling subdomain, from long-term exposure to the level of emissions associated with the proposed Plan and other sources that are permitted and modeled by SDAPCD. Cumulative risks are reported for each of the proposed Plan years in Section 7.3. Note that the mobile source cancer risk increment is essential to the cumulative risk calculation. Cumulative risks are calculated for sensitive receptors that exist in that year. For instance, if a land use is not residential in 2022, but becomes residential in 2035, the cumulative risk is not calculated for 2022 but is calculated for 2035.

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6 THRESHOLDS

This section discusses the thresholds by which pollutant concentrations and risk are evaluated for significance.

6.1 PARTICULATE MATTER THRESHOLDS

As noted in Section 4.7, *Background Concentrations Data,* the San Diego region is currently in attainment of the PM_{10} and $PM_{2.5}$ NAAQS and nonattainment of both PM_{10} and $PM_{2.5}$ CAAQS.

The proposed Plan would have a significant local PM air-quality impact if it causes a new violation of the PM standards or contributes substantially to an existing or projected violation of the PM standards. Impacts were based on incremental concentration changes, similar to the approach used in the previous EIR (Section 4.3 of the EIR for the 2021 Regional Plan [SANDAG 2021]). These PM thresholds must be based on incremental concentration to avoid double counting that would occur if Plan concentrations were added to background and compared to the NAAQS or CAAQS. Any receptor location in a proposed Plan analysis year but not in the baseline year (e.g., a receptor modeled for 2050 but not for 2022, such as from a change in land use or new or expanded sources) could not be included in calculations of PM increments. That is, Plan increments cannot be calculated at receptor locations that do not have modeled PM concentrations for the baseline year, and air quality impacts cannot be determined at locations without Plan increments because the existing sources are already included in the monitored (background) concentrations.

For modeling subdomains where the monitored DVs were below the applicable standard(s), subdomain-, pollutant-, and averaging-period–specific thresholds of incremental concentration were established. Each threshold represents the difference between the applicable NAAQS or CAAQS level and the monitored DV for the modeling subdomain. The incremental change in modeled PM DV were then computed between the Plan and existing (2022) conditions. Where the maximum of these modeled increments across the modeling subdomain was at or below the PM threshold, implementation of the proposed Plan would not cause a new exceedance of the applicable standard(s).

For the remaining areas (those where the monitored DVs are above the PM standard[s]; i.e., nonattainment modeling subdomains), it was determined if the proposed Plan would significantly contribute to existing air quality standard violations by comparing the maximum incremental concentrations to a significant change threshold.

Because SANDAG does not have its own incremental thresholds, thresholds from relevant agencies were used, based on substantial evidence, discussed below.

- The most relevant thresholds are those recommended by SDAPCD. The SDAPCD has not published formal guidance regarding California Environmental Quality Act (CEQA) compliance, but air-district rulemaking often is the source for CEQA thresholds (SDAPCD 1998). SDAPCD Rule 20.2 (New Source Review for non-major stationary sources) defines an incremental increase as 5.0 $\mu g/m^3$ for 24-hour PM_{10} and 3.0 $\mu g/m^3$ for annual PM_{10} (SDAPCD 1998). The County of San Diego suggests the 5.0 $\mu g/m^3$ 24-hour PM_{10} threshold in its CEQA guidance but does not suggest a threshold for evaluating annual PM_{10} (County of San Diego 2007). Neither SDAPCD nor the County provide recommendations for analyzing annual or 24-hour $PM_{2.5}$.
- The federal significant impact levels (SILs) are intended to define when changes are not meaningful and do not contribute to a violation of the NAAQS under the Prevention of Significant Deterioration (PSD) program, would imply less-than-significant impacts in all Class I, II, or III areas.[2] The adopted federal annual SILs are 1.0 and 0.3 $\mu g/m^3$, and the federal 24-hour SILs are 5.0 and 1.2 $\mu g/m^3$ for PM_{10} and $PM_{2.5}$, respectively.

[2] Under the Prevention of Significant Deterioration (PSD) program, Class I areas are of special national concern (e.g., certain national parks and wilderness areas), where little deterioration of air quality is allowed; thus, the allowable incremental change in emissions is low. The PSD increments of Class II areas are larger than those of Class I areas and allow for a moderate degree of emissions growth. Class III areas have the largest PSD increments, but to date no Class III areas have been designated (EPA 1981).

In April 2024, the EPA released its *Supplement to the Guidance on Significant Impact Levels for Ozone and Fine Particles in the PSD Permitting Program* (EPA 2024). In this guide, the EPA developed new SILs for evaluating annual $PM_{2.5}$ NAAQS as well as other pollutants. In this guide, the EPA now recommends a 0.13 μg/m^3 as the SIL value for evaluating the new annual $PM_{2.5}$ NAAQS (to reflect the lowering of the $PM_{2.5}$ annual NAAQS from 12 μg/m^3 to 9 μg/m^3). This value was determined based on the updated air quality variability analysis using 2020-2022 design value years and the revised level of NAAQS. This value is lower than the value of 0.3 μg/m^3 listed in 40 CFR 51.165(b)(2). However, since 40 CFR 51.165(b)(2) does not address whether an impact below 0.3 μg/m^3 causes or contributes to a violation of the NAAQS, the EPA and other permitting authorities retain the discretion under this provision to determine on a case-by-case basis whether an impact below 0.3 μg/m^3 will cause or contribute to a violation of the primary annual $PM_{2.5}$ NAAQS. However, based on the ambient air quality variability approach, the EPA's judgement is that an impact below 0.13 μg/m^3 generally will not be significant and can therefore be determined not to cause or contribute to any violation of the primary annual $PM_{2.5}$ NAAQS that is identified.

Based on this review of relevant thresholds, the particulate matter incremental thresholds presented in Table 13 were used (the source for each is summarized in parentheses).

Table 13 Significant Impact Levels Utilized when Monitor Design Values Were Above the Threshold Concentration for Particulate Matter (μg/m^3)

Time Scale	PM_{10}	$PM_{2.5}$
Annual	3.0 (SDAPCD, County of San Diego)	0.13 (EPA)
24-hour	5.0 (SDAPCD, County of San Diego, EPA)	1.2 (EPA)

Source: SDAPCD 1998, County of San Diego 2007, EPA 2024.

As mentioned, SDAPCD Rule 20.2 defines an incremental increase of both 24-hour and annual PM_{10} (5.0 μg/m^3 and 3.0 μg/m^3, respectively). The County of San Diego, in its CEQA guidance, defines a significant impact on ambient air as an exceedance of the SDAPCD's 24-hour PM_{10} standard (defined as 5.0 μg/m^3). As noted, neither the SDAPCD nor County has provided recommendations for analyzing ambient $PM_{2.5}$ concentrations. For $PM_{2.5}$, the EPA's adopted 24-hour SIL (1.2 μg/m^3) and recommended annual SIL (0.13 μg/m^3) are used.

6.2 HRA THRESHOLDS

The HRA considered incremental changes in cancer, chronic, and acute risks at residential, school, and recreational sensitive receptor locations. Each is defined in terms of an incremental change (increase) in risk from the proposed Plan relative to existing conditions.

- Carcinogenic health impacts are represented as the estimated excess 30-year cancer risk increment. A significant cancer health impact is defined as an excess cancer risk increment (net new) of 10 in a million or greater under the proposed Plan relative to baseline conditions anywhere in the modeling subdomain.
- A significant chronic non-cancer health impact is defined as an incremental chronic HI of 1.0 or greater anywhere in the modeling subdomain.
- A significant acute health impact is also defined as an incremental acute HI of 1.0 or greater anywhere in the modeling subdomain.

These criteria are consistent with SDAPCD levels of significance for public notification (SDAPCD 2021).

The modeling also considered cumulative health risks in each modeled subdomain under the proposed Plan. As above, these only apply to residential sensitive receptor types and only for cancer health risks. A significant cumulative health impact is determined by exceedance of the following cumulative threshold:

- A cancer risk of 100 per million or greater for residential sensitive receptors.

Note that a cumulative cancer risk of 100 per million was also used in the previous EIR (SANDAG 2021).

7 RESULTS

The analysis in this report followed a multi-step process. An inventory of the pollutant emissions associated with the Plan was developed. This included link-based emissions for on-road mobile sources and source-based emissions for passenger and freight rail and other major stationary sources. Dispersion modeling was then conducted to estimate localized PM_{10}, $PM_{2.5}$, and TAC concentrations under baseline (2022) conditions and two future-year (2035 and 2050) conditions with implementation of the proposed Plan. The incremental carcinogenic, acute non-cancer, and chronic non-cancer risks were assessed based on the modeled concentrations of TACs from the Plan and supplemented with additional risk values for potentially exposed populations. The methodology and details of these analyses are described in Chapters 2, 3 and 4, above. Below is a summary of the results of each analysis step.

7.1 MASS EMISSIONS

The emissions inventory started with link- and time-resolved ABM outputs for 2022, 2035, and 2050. Vehicle speeds are time-resolved, congested speeds from the ABM. Activity data was coupled with EMFAC-based, speed-resolved emission factors for San Diego County for the same years from EMFAC. Road dust emissions were incorporated into the air quality modeling using CARB's road dust methodology. The EPA SPECIATE tool was used to compute TAC emissions from each source.

Estimated criteria pollutant emissions are summarized in Table 14. Estimated TAC emissions are summarized in Table 15. Figure 4 graphically summarizes TAC emissions for each year.

As shown in Table 14, PM_{10} exhaust and $PM_{2.5}$ exhaust are dramatically reduced in both 2035 (39% reduction) and 2050 (56% reduction) relative to 2022 conditions. However, as shown, PM_{10} dust (the sum of brake and tire wear plus road dust) increases in 2035 (1% increase) and 2050 (2% increase) relative to 2022 conditions. This is because emission factors for brake wear, tire wear, and road dust are not expected to decrease over time, and the increase in VMT results in an increase in PM_{10} and $PM_{2.5}$ dust-related emissions. Also as shown, emissions of PM_{10} dust far outweigh emissions of PM_{10} exhaust. Thus, the increase in PM_{10} dust results in an increase in total PM_{10} (the sum of exhaust and dust) despite the substantial reduction in PM_{10} exhaust. Additionally, there is a decrease in total $PM_{2.5}$ in both 2035 and 2050 despite the increase in $PM_{2.5}$ dust.

Table 14 Average Daily On-Road Emissions (pounds) and Vehicle Miles Traveled Modeled for the Plan and Baseline Conditions

Emissions (pounds per day)											
Emission Category	**Daily VMT**	**ROG**	**NOx**	**CO**	**PM_{10} Exhaust**	**PM_{10} Dust**	**PM_{10} Total**	**$PM_{2.5}$ Exhaust**	**$PM_{2.5}$ Dust**	**$PM_{2.5}$ Total**	**SO_X**
2022											
On-Road	77,898,460	30,726	43,746	262,664	630	33,081	33,711	590	8,487	9,077	692
Freight Rail		110	1,778	433	70	-	70	68	-	68	30
Passenger Rail		16	356	403	6	-	6	6	-	6	28
Total 2022		30,852	45,881	263,500	707	33,081	33,788	665	8,487	9,151	750
2035											
On-Road	81,005,512	17,637	20,718	149,506	347	33,503	33,851	326	8,600	8,926	541
Freight Rail		126	3,685	1,080	75	-	75	73	-	73	76
Passenger Rail		25	586	750	9	-	9	9	-	9	53
Total 2035		17,787	24,990	151,336	431	33,503	33,935	408	8,600	9,007	670
Net Change 2035	*+3,107,053*	*-13,064*	*-20,891*	*-112,163*	*-275*	*422*	*147*	*-257*	*113*	*-144*	*-80*

Emission Category	Daily VMT	ROG	NOx	CO	PM_{10} Exhaust	PM_{10} Dust	PM_{10} Total	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Dust	$PM_{2.5}$ Total	SOx
					Emissions (pounds per day)						
% Change 2035	*+4%*	*-42%*	*-46%*	*-43%*	*-39%*	*+1%*	+0.4%	*-39%*	*+1%*	-2%	*-11%*
2050											
On-Road	82,051,577	12,990	18,357	121,821	286	33,744	34,030	270	8,665	8,935	509
Freight Rail		59	1,618	1,382	26	-	26	25	-	25	97
Passenger Rail		-	-	-	-	-	0	-	-	0	0
Total 2050		13,049	19,975	123,204	312	33,744	34,056	295	8,665	8,960	606
Net Change 2050	*+4,153,117*	*-17,802*	*-25,906*	*-140,296*	*-394*	*662*	*268*	*-370*	*178*	*-191*	*-145*
% Change 2050	*+5%*	*-58%*	*-56%*	*-53%*	*-56%*	*+2%*	*+0.8%*	*-56%*	*+2%*	-2%	*-19%*

Source: Modeling by Ascent and BlueScape in 2025.

Table 15 summarizes the change in key TACs included in the analysis. While the analysis herein evaluated the 39 TACs shown in Table 1, Table 15 summarizes the TACs that align with FHWA's Priority list of TACs (i.e., 1,3-butadiene, acetaldehyde, acrolein, benzene, DPM, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter / polycyclic aromatic hydrocarbons). As shown in Table 15, TAC emissions are projected to dramatically reduced in 2035 (between a 38% and 57% reduction) and 2050 (between a 40% and 74% reduction) relative to 2022 conditions. This change in TAC emissions between existing (2022) and proposed Plan (2035, 2050) years is shown graphically in Figure 4.

Table 15 Annual On-Road TACs (tons) for the Plan and Baseline Conditions

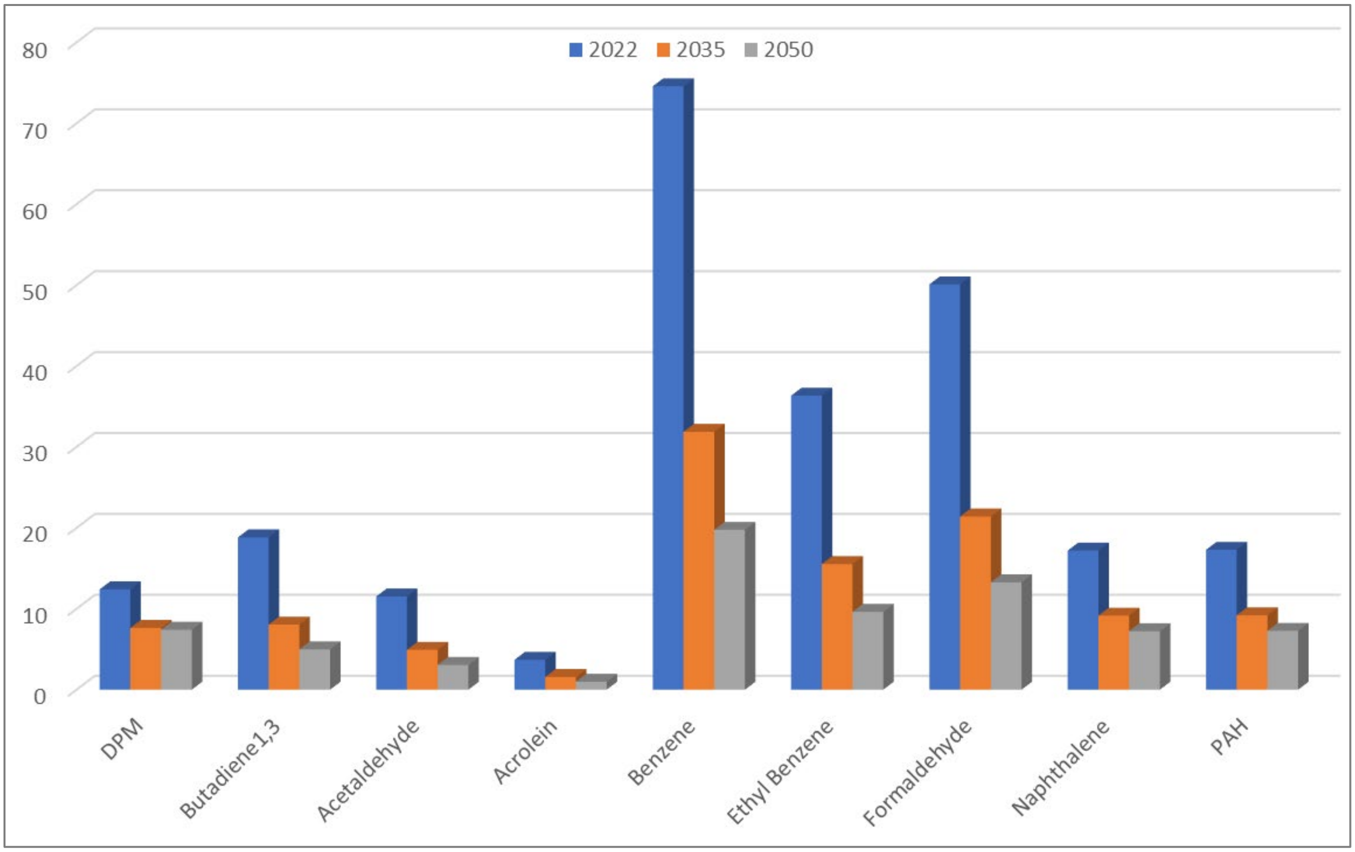
	2022 vs 2035			2022 vs 2050		
Pollutant	**2022**	**2035**	***% Change***	**2022**	**2050**	***% Change***
DPM	12.397	7.635	*-38%*	12.397	7.405	*-40%*
Butadiene1,3	18.825	8.044	*-57%*	18.825	4.986	*-74%*
Acetaldehyde	11.519	4.922	*-57%*	11.519	3.051	*-74%*
Acrolein	3.686	1.575	*-57%*	3.686	0.976	*-74%*
Benzene	74.576	31.868	*-57%*	74.576	19.754	*-74%*
Ethyl Benzene	36.333	15.526	*-57%*	36.333	9.624	*-74%*
Formaldehyde	50.090	21.405	*-57%*	50.090	13.268	*-74%*
Naphthalene	17.190	9.142	*-47%*	17.190	7.226	*-58%*
PAH[1]	17.280	9.193	*-47%*	17.280	7.269	*-58%*

[1] PAH (polycyclic aromatic hydrocarbons) values are the sum of the individual components.

Source: Modeling by Ascent and BlueScape in 2025.

7.2 PARTICULATE MATTER

As discussed above, PM_{10} and $PM_{2.5}$ concentrations were estimated at each ambient receptor and for each year for all applicable DVs. The difference between the modeled concentrations the Plan years and the 2022 baseline year was calculated to show whether the increment is positive—that is, whether the Plan would lead to an increased concentration of the pollutant at any ambient receptor in any future year relative to current conditions. Note that this increment was calculated only at ambient receptors that existed in both the baseline and Plan years (i.e., existing ambient receptors. See Section 6.1.) A positive increment alone does not necessarily indicate that a significant air quality impact would result. Instead, an impact is determined by comparing this increment to the thresholds applicable to each modeling subdomain discussed in Section 6.1.



Source: Modeling by Ascent and BlueScape in 2025.

Figure 4 Annual On-Road TACs (tons) for the Plan and Baseline Conditions

Table 16 shows the results for 2035 and Table 17 shows the results for 2050. The first column shows the modeling subdomain (or whole assessment domain) to which the results apply. The second column shows which of the six air quality standards is being evaluated (PM_{10} or $PM_{2.5}$; NAAQS or CAAQS; 24-hour or annual averaging period). The third column shows the applicable threshold, which varies by air quality standard, averaging period, and modeling subdomain (described further in Section 6.1). The remainder of the columns show the resulting data.

Table 16 and Table 17 present the following datasets for each subdomain and for each pollutant and time period for each Plan year: the maximum concentration, the maximum incremental change in concentration, the number of receptor locations with a positive increment, the number of receptor locations that exceed the threshold, and the approximate acreage associated with this exceedance. A significant impact is determined if any receptor locations within any subdomain exceeds the applicable threshold.

A number of receptors showed incremental concentrations that exceeded the $PM_{2.5}$ and PM_{10} thresholds in multiple subdomains. A summary of each standard is provided below.

- $PM_{2.5}$ 24-hour NAAQS: This standard is exceeded in the Donovan and Escondido subdomains in both 2035 and 2050. This exceedance only occurs in 2 locations in 2035 and 3 locations in 2050.
- $PM_{2.5}$ Annual CAAQS: This standard is exceeded in the Donovan and Chula Vista subdomains in both 2035 and 2050, with the vast majority (greater than 99%) of these exceedances occurring in Donovan.
- $PM_{2.5}$ Annual NAAQS: This standard is exceeded in each subdomain in both 2035 and 2050, with the vast majority (greater than 70%) of these exceedances occurring in Donovan.
- PM_{10} 24-hour CAAQS: This standard is exceeded in each subdomain in both 2035 and 2050, with the vast majority (greater than 85%) of these exceedances occurring in Downtown and Donovan.

- PM_{10} 24-hour NAAQS: This standard is exceeded in the Donovan and Escondido subdomains in both 2035 and 2050, with the vast majority (greater than 99%) of these exceedances occurring in Donovan.
- PM_{10} Annual CAAQS: This standard is exceeded in each subdomain in both 2035 and 2050, with the vast majority (greater than 85%) of these exceedances occurring in Downtown and Donovan.

Overall, the vast majority of modeled receptors show a decrease in $PM_{2.5}$ concentrations over the life of the Plan, while a smaller portion show an increase, and a subset of those that increase see an increase above thresholds. For example, for $PM_{2.5}$ Annual NAAQS in both 2035 and 2050, more than 80% of all receptor locations show a decrease in $PM_{2.5}$ concentrations, while less than 20% show an increase in $PM_{2.5}$ concentrations, and less than 1% show an increase in $PM_{2.5}$ concentrations above thresholds. Overall, while $PM_{2.5}$ emissions are projected to decrease in the future throughout the Plan Area, some locations, primarily those near roadways that show an increase in traffic volumes in 2035 and 2050, show an increase that may exceed thresholds.

Additionally, the vast majority of modeled receptors show a decrease in PM_{10} concentrations over the life of the Plan, while a smaller portion show an increase, and a subset of those that increase see an increase above thresholds. For example, for PM_{10} Annual CAAQS in both 2035 and 2050, more than 70% of all receptor locations show a decrease (or no change) in PM_{10} concentrations, less than 30% show an increase in PM_{10} concentrations, and less than 2% show an increase in PM_{10} concentrations above thresholds. Overall, while PM_{10} emissions are projected to decrease in the future throughout the Plan Area, some locations, primarily those near roadways that show an increase in traffic volumes in 2035 and 2050, show an increase that may exceed thresholds.

7.3 HRA

Table 18 through Table 24 summarize the results of the HRA described in Chapter 5 and Section 6.2. Table 18, Table 19, and Table 20 show cancer risk, acute hazard, and chronic hazard for existing receptors for each modeling subdomain and receptor. Table 21 show shows the cumulative cancer risk impacts by year under the Plan for residential land uses. Table 22, Table 23, and Table 24 show cancer risk, acute hazard, and chronic hazard for new receptors for each modeling subdomain and receptor.

As shown in Table 18, the incremental change in cancer risk at existing receptors is above the threshold at residential uses within each subdomain in both 2035 and 2050 except for the El Cajon subdomain. The maximum increment is seen in the Oceanside subdomain in 2035 and the Donovan subdomain in 2050.

As shown in Table 19 and Table 20, the incremental change in acute and chronic hazard index non-cancer risk at existing receptors is below the threshold within each subdomain in both 2035 and 2050. The maximum increment for both acute and chronic hazards is seen in the Escondido subdomain, but this increase is less than the threshold.

Table 21 shows that cumulative risks exceed the 100 per million cancer risk threshold in Downtown, Escondido, Kearny, and Oceanside subdomains in 2022, the Downtown and Oceanside subdomains in 2035, and in the Donovan subdomain in 2050. The maximum cumulative risk and the number of receptors exposed to levels above the cumulative threshold increases in 2035 and drops off in 2050. This is due to the fact that emissions from both passenger rail and freight rail are anticipated to increase in 2035 due to an increase in activity, then decrease in 2050 due to fleet turnover to cleaner diesel freight rail and zero emissions (ZE) passenger rail. The change in cumulative risk between years is a product of the change in on-road and rail sources only, because the risk from stationary sources is assumed to remain constant.

As shown in Table 22, cancer risk levels at new sensitive receptors (e.g., sensitive receptors that are “turned on” in future years due to land use change) is expected to be above the threshold at residential uses within each subdomain in both 2035 and 2050. The maximum increment is seen in the Downtown subdomain in 2035 and the Donovan domain in 2050.

For new sensitive receptors (e.g., sensitive receptors that are “turned on” in future years due to land use change), there is no recorded value for the 2022 baseline. Without a 2022 modeled value from which to calculate a difference, the reported values for a future year are the value alone in that future year (there is no baseline value to subtract from the projected year to compute an increment). Note that this does not mean there is no risk in these locations in 2022, just that risk is not modeled because the land use was something other than residential, school, or park uses in 2022. For new receptors, the cancer risk exceeds 10 per million only for residential receptors.

Table 16 Summary of Results for Incremental Concentrations of Particulate Matter for 2035 Relative to the 2022 Baseline

Modeling Subdomain	Standard	Threshold (µg/m³)	2022	2035				
			Max Concentration (µg/m³)	Max Concentration (µg/m³)	Maximum Incremental Concentration (µg/m³)	# Receptors With Positive Increment	# Receptors Above Threshold	Land Area Above Threshold (acres)
Whole Assessment Domain	$PM_{2.5}$ 24-hour NAAQS	varies	12	24	23	37,998	2	1
	$PM_{2.5}$ Annual CAAQS		7	7	5	38,886	1,623	1,003
	$PM_{2.5}$ Annual NAAQS		7	11	11	39,171	2,173	1,343
	PM_{10} 24-hour CAAQS		96	185	179	112,127	2,135	1,319
	PM_{10} 24-hour NAAQS		85	164	158	112,780	640	395
	PM_{10} Annual CAAQS		42	70	69	114,728	7,474	4,617
Donovan	$PM_{2.5}$ 24-hour NAAQS	7	2	8	8	7,830	1	1
	$PM_{2.5}$ Annual CAAQS	0.13	2	50	5	7,967	1,619	1,000
	$PM_{2.5}$ Annual NAAQS	0.13	2	4	5	7,974	1,578	975
	PM_{10} 24-hour CAAQS	5	27	67	67	11,703	805	497
	PM_{10} 24-hour NAAQS	5	23	58	58	11,710	639	395
	PM_{10} Annual CAAQS	1	14	32	32	11,702	2,511	1,551
Kearny	$PM_{2.5}$ 24-hour NAAQS	18	7	6	4	3,377	0	0
	$PM_{2.5}$ Annual CAAQS	4	4	3	2	3,381	0	0
	$PM_{2.5}$ Annual NAAQS	1.7	4	3	2	3,340	1	1
	PM_{10} 24-hour CAAQS	5	51	48	30	9,532	65	40
	PM_{10} 24-hour NAAQS	99.0	47	44	26	9,350	0	0
	PM_{10} Annual CAAQS	1	23	21	13	8,851	208	129
Downtown	$PM_{2.5}$ 24-hour NAAQS	16	12	13	2	4,572	0	0
	$PM_{2.5}$ Annual CAAQS	2.4	7	7	1	4,400	0	0
	$PM_{2.5}$ Annual NAAQS	0.13	7	6	1	5,438	244	151
	PM_{10} 24-hour CAAQS	5	96	98	90	31,860	1,031	637
	PM_{10} 24-hour NAAQS	103.7	85	90	87	32,370	0	0
	PM_{10} Annual CAAQS	1	42	43	42	34,033	4,123	2,547

Modeling Subdomain	Standard	Threshold (μg/m³)	2022	2035				
			Max Concentration (μg/m³)	Max Concentration (μg/m³)	Maximum Incremental Concentration (μg/m³)	# Receptors With Positive Increment	# Receptors Above Threshold	Land Area Above Threshold (acres)
Chula Vista	$PM_{2.5}$ 24-hour NAAQS	16	6	6	4	6,697	0	0
	$PM_{2.5}$ Annual CAAQS	2.1	4	4	2	6,610	4	3
	$PM_{2.5}$ Annual NAAQS	0.13	4	4	2	6,445	288	178
	PM_{10} 24-hour CAAQS	5	44	46	29	13,385	34	21
	PM_{10} 24-hour NAAQS	99	41	43	28	13,641	0	0
	PM_{10} Annual CAAQS	1	25	26	16	13,858	166	103
El Cajon	$PM_{2.5}$ 24-hour NAAQS	17	6	6	2	2,338	0	0
	$PM_{2.5}$ Annual CAAQS	2.8	4	3	1	2,582	0	0
	$PM_{2.5}$ Annual NAAQS	0.13	4	3	1	2,521	55	34
	PM_{10} 24-hour CAAQS	2.5	41	37	14	6,405	37	23
	PM_{10} 24-hour NAAQS	104.2	39	36	13	6,463	0	0
	PM_{10} Annual CAAQS	1	21	21	7	6,992	41	25
Escondido	$PM_{2.5}$ 24-hour NAAQS	19	7	24	23	6,821	1	1
	$PM_{2.5}$ Annual CAAQS	4.3	4	4	3	6,979	0	0
	$PM_{2.5}$ Annual NAAQS	1.6	4	11	11	6,604	6	4
	PM_{10} 24-hour CAAQS	5	54	185	179	22,216	127	79
	PM_{10} 24-hour NAAQS	101.4	47	164	158	22,100	1	1
	PM_{10} Annual CAAQS	1	27	70	69	22,114	276	171
Oceanside	$PM_{2.5}$ 24-hour Federal	18	7	6	2	6,363	0	0
	$PM_{2.5}$ Annual State	4.3	4	4	1	6,967	0	0
	$PM_{2.5}$ Annual Federal	1	4	4	1	6,849	1	1
	PM_{10} 24-hour State	5	48	45	19	17,026	36	22
	PM_{10} 24-hour Federal	93	43	41	17	17,146	0	0
	PM_{10} 24 Hour CAAQS	1	25	26	8	17,178	149	92

Notes: PM = particulate matter; PM_{10} = PM with aerodynamic diameter less than or equal to 10 micrometers; $PM_{2.5}$ = PM with aerodynamic diameter less than or equal to 2.5 micrometers; NAAQS = National Ambient Air Quality Standard; CAAQS = California Ambient Air Quality Standard;μg/m³ = micrograms per cubic meter.

Thresholds: All values were derived using the minimum of monitored design values and the standard concentration or the significant impact level (see Sections 4.7 and 6.1).

Source: Modeling by Ascent and BlueScape in 2025.

Table 17 Summary of Results for Incremental Concentrations of Particulate Matter for 2050 Relative to the 2022 Baseline

Modeling Subdomain	Standard	Threshold (μg/m³)	2022	2050				
			Max Concentration (μg/m³)	Max Concentration (μg/m³)	Maximum Incremental Concentration (μg/m³)	# Receptors With Positive Increment	# Receptors Above Threshold	Land Area Above Threshold (acres)
Whole Assessment Domain	$PM_{2.5}$ 24-hour NAAQS	varies	12	23	22	36,788	3	2
	$PM_{2.5}$ Annual CAAQS		7	9	9	38,134	2,311	1,428
	$PM_{2.5}$ Annual NAAQS		7	11	10	39,325	2,987	1,845
	PM_{10} 24-hour CAAQS		96	181	175	95,631	2,651	1,638
	PM_{10} 24-hour NAAQS		85	160	155	96,759	1,030	636
	PM_{10} Annual CAAQS		42	69	67	100,962	8,200	5,067
Donovan	$PM_{2.5}$ 24-hour NAAQS	7	2	15	15	7,769	2	1
	$PM_{2.5}$ Annual CAAQS	0.13	1.62	9	9	7,920	2,307	1,425
	$PM_{2.5}$ Annual NAAQS	0.13	1.58	9	9	7,906	2,273	1,404
	PM_{10} 24-hour CAAQS	5	27	128	128	11,770	1,297	801
	PM_{10} 24-hour NAAQS	5	23	108	108	11,787	1,029	636
	PM_{10} Annual CAAQS	1	14	60	60	11,824	3,303	2,040
Kearny	$PM_{2.5}$ 24-hour NAAQS	18	7	4	3	2,300	0	0
	$PM_{2.5}$ Annual CAAQS	4	4	3	2	2,447	0	0
	$PM_{2.5}$ Annual NAAQS	1.7	3.6	3	2	2,428	1	1
	PM_{10} 24-hour CAAQS	5	51	32	27	5,243	67	41
	PM_{10} 24-hour NAAQS	99.0	47	27	23	5,085	0	0
	PM_{10} Annual CAAQS	1	23	16	12	5,405	201	124
Downtown	$PM_{2.5}$ 24-hour NAAQS	16	12	7	2	3,793	0	0
	$PM_{2.5}$ Annual CAAQS	2.4	7	4	1	3,831	0	0
	$PM_{2.5}$ Annual NAAQS	0.13	7	4	1	4,885	220	136
	PM_{10} 24-hour CAAQS	5	96	61	30	30,173	974	602
	PM_{10} 24-hour NAAQS	103.7	85	53	28	30,902	0	0
	PM_{10} Annual CAAQS	1	42	26	17	32,925	3,891	2,404
Chula Vista	$PM_{2.5}$ 24-hour NAAQS	16	6	6	4	6,552	0	0
	$PM_{2.5}$ Annual CAAQS	2.1	4	4	3	6,488	4	3

Modeling Subdomain	Standard	Threshold (μg/m³)	2022	2050				
			Max Concentration (μg/m³)	Max Concentration (μg/m³)	Maximum Incremental Concentration (μg/m³)	# Receptors With Positive Increment	# Receptors Above Threshold	Land Area Above Threshold (acres)
	$PM_{2.5}$ Annual NAAQS	0.13	4	4	3	6,387	413	255
	PM_{10} 24-hour CAAQS	5	44	43	31	12,746	70	43
	PM_{10} 24-hour NAAQS	99	41	40	29	13,159	0	0
	PM_{10} Annual CAAQS	1	25	25	18	13,191	281	174
El Cajon	$PM_{2.5}$ 24-hour NAAQS	17	6	5	1	5,314	0	0
	$PM_{2.5}$ Annual CAAQS	2.8	4	3	1	6,065	0	0
	$PM_{2.5}$ Annual NAAQS	0.13	4	3	1	6,272	71	44
	PM_{10} 24-hour CAAQS	2.5	41	35	9	10,016	53	33
	PM_{10} 24-hour NAAQS	104.2	39	34	8	9,956	0	0
	PM_{10} Annual CAAQS	1	21	20	5	10,789	53	33
Escondido	$PM_{2.5}$ 24-hour NAAQS	19	7	23	22	7,234	1	1
	$PM_{2.5}$ Annual CAAQS	4.3	4	4	3	7,263	0	0
	$PM_{2.5}$ Annual NAAQS	1.6	4	11	10	7,339	6	4
	PM_{10} 24-hour CAAQS	5	54	181	175	16,350	134	83
	PM_{10} 24-hour NAAQS	101.4	47	160	155	16,231	1	1
	PM_{10} Annual CAAQS	1	27	69	67	16,629	279	172
Oceanside	$PM_{2.5}$ 24-hour Federal	18	7	6	3	3,826	0	0
	$PM_{2.5}$ Annual State	4.3	4	4	2	4,120	0	0
	$PM_{2.5}$ Annual Federal	1	4	4	2	4,108	3	2
	PM_{10} 24-hour State	5	48	42	25	9,333	56	35
	PM_{10} 24-hour Federal	93	43	39	18	9,639	0	0
	PM_{10} 24 Hour CAAQS	1	25	25	11	10,199	192	119

Notes: PM = particulate matter; PM_{10} = PM with aerodynamic diameter less than or equal to 10 micrometers; $PM_{2.5}$ = PM with aerodynamic diameter less than or equal to 2.5 micrometers; NAAQS = National Ambient Air Quality Standard; CAAQS = California Ambient Air Quality Standard;μg/m³ = micrograms per cubic meter.

Thresholds: All values were derived using the minimum of monitored design values and the standard concentration or the significant impact level (see Sections 4.7 and 6.1).

Source: Modeling by Ascent and BlueScape in 2025.

Table 18 Summary of Results of the Maximum Health Impacts at Existing Sensitive Receptors – Cancer Risk

Modeling Subdomain	Type of Sensitive Receptor	2022	2035				2050			
		Maximum Cancer Risk	Maximum Cancer Risk	Maximum Incremental Cancer Risk	Incremental Area (acres) Exceeding 10 per Million	*Impact?*	Maximum Cancer Risk	Maximum Incremental Cancer Risk	Incremental Area (acres) Exceeding 10 per Million	*Impact?*
Whole Assessment Domain	Residential	255	275	49	80	*Yes*	89	33	56	*Yes*
	Recreational	41	44	3	0	*No*	16	2	0	*No*
	School	50	53	3	0	*No*	20	3	0	*No*
Chula Vista	Residential	51	39	27	2	*Yes*	36	27	2	*Yes*
	Recreational	10	7	2	0	*No*	6	2	0	*No*
	School	8	8	1	0	*No*	8	1	0	*No*
Donovan	Residential	38	31	17	4	*Yes*	39	33	11	*Yes*
	Recreational	5	3	2	0	*No*	3	2	0	*No*
	School	2	1	1	0	*No*	1	1	0	*No*
Downtown	Residential	255	275	22	17	*Yes*	89	20	2	*Yes*
	Recreational	41	44	3	0	*No*	16	1	0	*No*
	School	50	53	3	0	*No*	20	0	0	*No*
El Cajon	Residential	47	30	8.6	0	*No*	28	8	0	*No*
	Recreational	9	6	0	0	*No*	5	0	0	*No*
	School	5	3	0	0	*No*	3	0	0	*No*
Escondido	Residential	107	67	31	41	*Yes*	62	27	35	*Yes*
	Recreational	20	12	2	0	*No*	10	2	0	*No*
	School	11	7	1	0	*No*	7	0	0	*No*
Kearny	Residential	96	92	20	4	*Yes*	45	13	2	*Yes*
	Recreational	20	21	3	0	*No*	7	2	0	*No*
	School	11	12	1	0	*No*	5	0	0	*No*
Oceanside	Residential	104	112	49	12	*Yes*	35	14	4	*Yes*
	Recreational	11	12	2	0	*No*	4	2	0	*No*
	School	12	13	3	0	*No*	5	3	0	*No*

Notes: The incremental cancer threshold is 10 chances in a million.

Source: Modeling by Ascent and BlueScape in 2025.

Table 19 Summary of Results of the Maximum Health Impacts at Existing Sensitive Receptors – Acute Hazard Index

Modeling Subdomain	Type of Sensitive Receptor	2022	2035				2050			
		Maximum Acute Risk	Maximum Acute Risk	Maximum Incremental Acute Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*	Maximum Acute Risk	Maximum Incremental Acute Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*
Whole Assessment Domain	Residential	0.62	0.36	0.10	0	*No*	0.31	0.15	0	*No*
	Recreational	0.52	0.38	0.13	0	*No*	0.34	0.13	0	*No*
	School	0.59	0.32	0.06	0	*No*	0.28	0.07	0	*No*
Chula Vista	Residential	0.24	0.20	0.09	0	*No*	0.19	0.10	0	*No*
	Recreational	0.38	0.30	0.04	0	*No*	0.26	0.05	0	*No*
	School	0.21	0.17	0.02	0	*No*	0.15	0.02	0	*No*
Donovan	Residential	0.10	0.14	0.08	0	*No*	0.19	0.15	0	*No*
	Recreational	0.11	0.11	0.07	0	*No*	0.14	0.11	0	*No*
	School	0.08	0.07	0.05	0	*No*	0.09	0.07	0	*No*
Downtown	Residential	0.62	0.36	0.03	0	*No*	0.31	0.02	0	*No*
	Recreational	0.46	0.33	0.03	0	*No*	0.25	0.03	0	*No*
	School	0.59	0.32	0.02	0	*No*	0.28	0.01	0	*No*
El Cajon	Residential	0.29	0.22	0.02	0	*No*	0.20	0.02	0	*No*
	Recreational	0.31	0.24	0.01	0	*No*	0.22	0.01	0	*No*
	School	0.14	0.10	0.01	0	*No*	0.09	0.00	0	*No*
Escondido	Residential	0.39	0.29	0.10	0	*No*	0.27	0.11	0	*No*
	Recreational	0.52	0.38	0.13	0	*No*	0.34	0.13	0	*No*
	School	0.26	0.18	0.01	0	*No*	0.16	0.00	0	*No*
Kearny	Residential	0.44	0.30	0.06	0	*No*	0.26	0.05	0	*No*
	Recreational	0.40	0.28	0.12	0	*No*	0.25	0.08	0	*No*
	School	0.22	0.17	0.00	0	*No*	0.15	0.00	0	*No*
Oceanside	Residential	0.24	0.16	0.05	0	*No*	0.14	0.04	0	*No*
	Recreational	0.22	0.16	0.06	0	*No*	0.14	0.06	0	*No*
	School	0.18	0.12	0.06	0	*No*	0.11	0.06	0	*No*

Notes: The incremental acute hazard index threshold is 1.0

Source: Modeling by Ascent and BlueScape in 2025.

Table 20 Summary of Results of the Maximum Health Impacts at Existing Sensitive Receptors – Chronic Hazard Index

Modeling Subdomain	Type of Sensitive Receptor	2022	2035				2050			
		Maximum Chronic Risk	Maximum Chronic Risk	Maximum Incremental Chronic Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*	Maximum Chronic Risk	Maximum Incremental Chronic Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*
Whole Assessment Domain	Residential	1.39	1.23	0.62	0	*No*	1.22	0.63	0	*No*
	Recreational	0.07	0.06	0.02	0	*No*	0.06	0.02	0	*No*
	School	0.19	0.16	0.06	0	*No*	0.13	0.06	0	*No*
Chula Vista	Residential	0.80	0.70	0.49	0	*No*	0.68	0.50	0	*No*
	Recreational	0.04	0.04	0.02	0	*No*	0.04	0.02	0	*No*
	School	0.13	0.13	0.02	0	*No*	0.13	0.03	0	*No*
Donovan	Residential	0.25	0.50	0.32	0	*No*	0.67	0.61	0	*No*
	Recreational	0.02	0.02	0.01	0	*No*	0.02	0.02	0	*No*
	School	0.03	0.03	0.02	0	*No*	0.03	0.03	0	*No*
Downtown	Residential	1.39	1.22	0.44	0	*No*	1.15	0.40	0	*No*
	Recreational	0.07	0.06	0.01	0	*No*	0.06	0.01	0	*No*
	School	0.19	0.16	0.04	0	*No*	0.13	0.04	0	*No*
El Cajon	Residential	0.72	0.63	0.25	0	*No*	0.63	0.26	0	*No*
	Recreational	0.04	0.03	0.00	0	*No*	0.03	0.00	0	*No*
	School	0.06	0.05	0.01	0	*No*	0.05	0.01	0	*No*
Escondido	Residential	1.34	1.23	0.62	0	*No*	1.22	0.63	0	*No*
	Recreational	0.07	0.06	0.02	0	*No*	0.06	0.02	0	*No*
	School	0.13	0.12	0.02	0	*No*	0.13	0.01	0	*No*
Kearny	Residential	1.04	0.97	0.36	0	*No*	0.95	0.36	0	*No*
	Recreational	0.04	0.04	0.02	0	*No*	0.04	0.02	0	*No*
	School	0.09	0.08	0.01	0	*No*	0.07	0.00	0	*No*
Oceanside	Residential	0.77	0.70	0.33	0	*No*	0.68	0.38	0	*No*
	Recreational	0.03	0.03	0.02	0	*No*	0.03	0.02	0	*No*
	School	0.09	0.08	0.06	0	*No*	0.08	0.06	0	*No*

Notes: The incremental chronic hazard index threshold is 1.0

Source: Modeling by Ascent and BlueScape in 2025.

Table 21 Summary of Results of the Maximum Cumulative Health Impacts at Existing Sensitive Receptors

Modeling Subdomain	Type of Sensitive Receptor	2022 Maximum Cumulative Cancer Risk (per million)	2035 Maximum Cumulative Cancer Risk (per million)	2050 Maximum Cumulative Cancer Risk (per million)	2022 Area (Acres) Exceeding 100 per million	2035 Area (Acres) Exceeding 100 per million	2050 Area (Acres) Exceeding 100 per million
Chula Vista	Residential	54	41	50	0	0	0
Donovan	Residential	41	33	115	0	0	1
Downtown	Residential	256	276	90	30	58	0
El Cajon	Residential	49	33	40	0	0	0
Escondido	Residential	107	68	62	1	0	0
Kearny	Residential	106	92	48	2	0	0
Oceanside	Residential	104	114	38	1	6	0

Source: Modeling by Ascent and BlueScape in 2025.

As shown in Table 23, the incremental change in acute hazard index at new receptors is expected to be below the threshold for both years in each subdomain. As shown in Table 24, the incremental change in chronic hazard index at new receptors is above the threshold at new residential uses in Escondido in 2035 and both Escondido and Donovan in 2050.

Also, note that all rail emissions presented in Table 18 through Table 24 are modeled assuming an approximately 10% increase in rail diesel PM emissions in 2035, and an approximately 61% decrease in rail diesel PM emissions in 2050. This contributes to the increase in maximum cancer risk in 2035, particularly in the Downtown subdomain, where the maximally exposed receptors are the residential uses that are immediately adjacent to the rail tracks downtown. The risk for receptors that are exposed to rail emissions drops off substantially by 2050.

Table 22 Summary of Results of the Maximum Health Impacts at New Land Use Sensitive Receptors – Cancer Risk

Modeling Subdomain	Type of Sensitive Receptor	2035			2050		
		2035 Maximum Cancer Risk	2035 Area (acres) Exceeding 10 per Million	2035 *Impact?*	2050 Maximum Cancer Risk	2050 Area (acres) Exceeding 10 per Million	2050 *Impact?*
Whole Assessment Domain	Residential	241	694	*Yes*	114	707	*Yes*
	Recreational	8	0	*No*	6	0	*No*
	School	3	0	*No*	7	0	*No*
Chula Vista	Residential	25	9	*Yes*	49	22	*Yes*
	Recreational	3	0	*No*	3	0	*No*
	School	1	0	*No*	1	0	*No*
Donovan	Residential	18	12	*Yes*	114	40	*Yes*
	Recreational	3	0	*No*	6	0	*No*
	School	3	0	*No*	7	0	*No*
Downtown	Residential	241	238	*Yes*	80	299	*Yes*
	Recreational	5	0	*No*	3	0	*No*
	School	0	0	*No*	4	0	*No*
El Cajon	Residential	16	15	*Yes*	38	22	*Yes*
	Recreational	1	0	*No*	1	0	*No*
	School	1	0	*No*	1	0	*No*
Escondido	Residential	47	125	*Yes*	42	96	*Yes*
	Recreational	3	0	*No*	3	0	*No*
	School	2	0	*No*	1	0	*No*
Kearny	Residential	74	92	*Yes*	32	70	*Yes*
	Recreational	8	0	*No*	4	0	*No*
	School	1	0	*No*	1	0	*No*
Oceanside	Residential	114	203	*Yes*	34	158	*Yes*
	Recreational	0	0	*No*	1	0	*No*
	School	1	0	*No*	1	0	*No*

Notes: The incremental cancer threshold is 10 chances in a million.

Source: Modeling by Ascent and BlueScape in 2025.

Table 23 Summary of Results of the Maximum Health Impacts at New Land Use Sensitive Receptors – Acute Hazard Index

Modeling Subdomain	Type of Sensitive Receptor	2035			2050		
		Maximum Acute Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*	Maximum Acute Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*
Whole Assessment Domain	Residential	0.34	0	*No*	0.47	0	*No*
	Recreational	0.28	0	*No*	0.25	0	*No*
	School	0.14	0	*No*	0.18	0	*No*
Chula Vista	Residential	0.16	0	*No*	0.17	0	*No*
	Recreational	0.09	0	*No*	0.17	0	*No*
	School	0.04	0	*No*	0.05	0	*No*
Donovan	Residential	0.14	0	*No*	0.47	0	*No*
	Recreational	0.11	0	*No*	0.19	0	*No*
	School	0.08	0	*No*	0.18	0	*No*
Downtown	Residential	0.34	0	*No*	0.30	0	*No*
	Recreational	0.26	0	*No*	0.23	0	*No*
	School	0.04	0	*No*	0.15	0	*No*
El Cajon	Residential	0.14	0	*No*	0.17	0	*No*
	Recreational	0.07	0	*No*	0.07	0	*No*
	School	0.04	0	*No*	0.04	0	*No*
Escondido	Residential	0.27	0	*No*	0.31	0	*No*
	Recreational	0.28	0	*No*	0.25	0	*No*
	School	0.14	0	*No*	0.13	0	*No*
Kearny	Residential	0.23	0	*No*	0.20	0	*No*
	Recreational	0.13	0	*No*	0.11	0	*No*
	School	0.06	0	*No*	0.05	0	*No*
Oceanside	Residential	0.15	0	*No*	0.13	0	*No*
	Recreational	0.04	0	*No*	0.06	0	*No*
	School	0.02	0	*No*	0.02	0	*No*

Notes: The incremental acute hazard index threshold is 1.0.

Source: Modeling by Ascent and BlueScape in 2025.

Table 24 Summary of Results of the Maximum Health Impacts at New Land Use Sensitive Receptors – Chronic Hazard Index

Modeling Subdomain	Type of Sensitive Receptor	2035			2050		
		Maximum Chronic Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*	Maximum Chronic Risk	Incremental Area (acres) Exceeding 1.0	*Impact?*
Whole Assessment Domain	Residential	1.29	1	*Yes*	2.14	2	*Yes*
	Recreational	0.02	0	*No*	0.03	0	*No*
	School	0.04	0	*No*	0.11	0	*No*
Chula Vista	Residential	0.44	0	*No*	0.89	0	*No*
	Recreational	0.02	0	*No*	0.02	0	*No*
	School	0.01	0	*No*	0.02	0	*No*
Donovan	Residential	0.50	0	*No*	2.14	1	*Yes*
	Recreational	0.02	0	*No*	0.03	0	*No*
	School	0.04	0	*No*	0.11	0	*No*
Downtown	Residential	0.97	0	*No*	1.00	0	*No*
	Recreational	0.01	0	*No*	0.01	0	*No*
	School	0.01	0	*No*	0.06	0	*No*
El Cajon	Residential	0.34	0	*No*	0.71	0	*No*
	Recreational	0.00	0	*No*	0.01	0	*No*
	School	0.01	0	*No*	0.01	0	*No*
Escondido	Residential	1.29	1	*Yes*	1.21	2	*Yes*
	Recreational	0.02	0	*No*	0.02	0	*No*
	School	0.03	0	*No*	0.03	0	*No*
Kearny	Residential	0.58	0	*No*	0.53	0	*No*
	Recreational	0.02	0	*No*	0.02	0	*No*
	School	0.01	0	*No*	0.01	0	*No*
Oceanside	Residential	0.66	0	*No*	0.64	0	*No*
	Recreational	0.00	0	*No*	0.00	0	*No*
	School	0.01	0	*No*	0.01	0	*No*

Notes: The incremental chronic hazard index threshold is 1.0

Source: Modeling by Ascent and BlueScape in 2025.

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Attachment 1

Air Quality Plan Consistency

AQ-1 Growth Figure

Figure 4.3-1 summarizes the growth projections assumed in Series 12 (assumed in the RAQS),
Series 13 (assumed in the SIP), and
Series 14 (assumed in the proposed Plan).

Series 12	2016 RAQS
Series 13	2020 SIP says it used 2019 Federal RTP, which is Series 14 (same as 2021 EIR)
Series 14	2021 EIR and RAQS 2022
Series 15	RP 2025
2021 EIR	SANDAG_2021RegPlanPEIR

Population

Document	SANDAG v.	2012	2013	2014	2015	2016	2017	2018	2019	2020
2020 SIP (Series 13)	2015 EIR	3,143,429	3,179,965	3,216,500	3,253,036	3,289,571	3,326,107	3,362,642	3,399,178	3,435,713
2021 Regional Plan and 2022 RAQS (Series 14)	2021 EIR					3,309,510	3,327,436	3,345,363	3,363,289	3,381,216
Proposed Plan (Series 15)	2025 EIR									

Document	SANDAG v.	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020 SIP (Series 13)	2015 EIR	3,463,579	3,491,444	3,519,310	3,547,176	3,575,041	3,602,907	3,630,773	3,658,638	3,686,504	3,714,370
2021 Regional Plan and 2022 RAQS (Series 14)	2021 EIR	3,399,142	3,417,069	3,434,995	3,452,922	3,470,848	3,485,798	3,500,748	3,515,698	3,530,648	3,545,598
Proposed Plan (Series 15)	2025 EIR		3,287,306	3,296,310	3,305,315	3,314,319	3,323,323	3,332,328	3,341,332	3,350,336	3,359,340

Document	SANDAG v.	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2020 SIP (Series 13)	2015 EIR	3,742,235	3,770,101	3,797,967	3,825,832	3,853,698	3,868,035	3,882,373	3,896,710	3,911,048	3,925,385
2021 Regional Plan and 2022 RAQS (Series 14)	2021 EIR	3,560,548	3,575,498	3,590,448	3,605,398	3,620,348	3,628,730	3,637,111	3,645,493	3,653,875	3,662,256
Proposed Plan (Series 15)	2025 EIR	3,368,345	3,377,349	3,386,353	3,395,358	3,404,362	3,404,088	3,403,814	3,403,540	3,403,265	3,402,991

Document	SANDAG v.	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
2020 SIP (Series 13)	2015 EIR	3,939,722	3,954,060	3,968,397	3,982,735	3,997,072	4,011,409	4,025,747	4,040,084	4,054,422	4,068,759
2021 Regional Plan and 2022 RAQS (Series 14)	2021 EIR	3,670,638	3,679,020	3,687,401	3,695,783	3,704,165	3,712,546	3,720,928	3,729,310	3,737,691	3,746,073
Proposed Plan (Series 15)	2025 EIR	3,402,717	3,402,443	3,402,169	3,401,895	3,401,621	3,401,347	3,401,072	3,400,798	3,400,524	3,400,250

known points
interpolated

Attachment 2

Mass Emission Calculation Sheets

SANDAG RP 2025
Mass Emission Calculations

Summary	yr	lbs/day ROG	lbs/day NOx	lbs/day CO	lbs/day PM10	lbs/day PM2.5	lbs/day DPM	lbs/day SOX	lbs/day CO2	lbs/day CH4	lbs/day N2O
	2022	30,726	43,746	262,664	33,711	9,077	290	692	70,857,492	3,453	3,556
	2035	17,637	20,718	149,506	33,851	8,926	171	541	55,484,625	1,985	2,571
	2050	12,990	18,357	121,821	34,030	8,935	168	509	52,017,411	1,064	2,513
absolute change v 2022	*2035*	-13,089	-23,028	-113,158	140	-151	-119	-150	-15,372,867	-1,468	-985
	2050	-17,736	-25,389	-140,843	319	-142	-122	-183	-18,840,082	-2,389	-1,044
relative change v 2022	*2035*	-43%	-53%	-43%	0%	-2%	-41%	-22%	-22%	-43%	-28%
	2050	-58%	-58%	-54%	1%	-2%	-42%	-26%	-27%	-69%	-29%

Summary	yr	tpd ROG	tpd NOx	tpd CO	tpd PM10	tpd PM2.5	tpd DPM	tpd SOX	tpd CO2	tpd CH4	tpd N2O
	2022	15	22	131	16.9	4.5	0.15	0.3	35,429	2	2
	2035	9	10	75	16.9	4.5	0.1	0.3	27,742	1	1
	2050	6	9	61	17.0	4.5	0.1	0.3	26,009	1	1
absolute change v 2022	*2035*	-7	-12	-57	0.1	-0.1	-0.1	-0.1	-7,686	-1	0
	2050	-9	-13	-70	0.2	-0.1	-0.1	-0.1	-9,420	-1	-1
relative change v 2022	*2035*	-43%	-53%	-43%	0%	-2%	-41%	-22%	-22%	-43%	-28%
	2050	-58%	-58%	-54%	1%	-2%	-42%	-26%	-27%	-69%	-29%

Emission Factors		EFs in grams per VMT (includes all running, evap, and process emissions)													Road Dust	
	yr	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	DPM	SOX	N2O	PM10d	PM2.5d
	2022	0.18	0.20	1.53	0.25	412.59	0.02	0.00	0.19	0.00	0.05	0.002	0.00	0.02	0.1714	0.0428
	2035	0.10	0.11	0.84	0.12	310.69	0.01	0.00	0.19	0.00	0.05	0.001	0.00	0.01	0.1663	0.0416
	2050	0.07	0.08	0.67	0.10	287.56	0.01	0.00	0.19	0.00	0.05	0.001	0.00	0.01	0.1648	0.0412

VMT	yr	VMT daily	VMT annual (*347)
	2022	77,898,460	28,432,937,766
	2035	81,005,512	29,567,011,979
	2050	82,051,577	29,948,825,526

VMT change	PM10ex change	PM10d change	Total PM10 change	ROG change
4.0%	-44.86%	1.28%	0.41%	-42.60%
5.3%	-54.53%	2.00%	0.95%	-57.72%

Emission Calculations

DAILY		ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	DPM	SOX	N2O
	yr	ROG	TOG	CO	NOx	CO2	CH4	PM10	PM10	PM2.5	PM2.5	DPM	SOX	N2O
lbs per day	2022	30,726	34,095	262,664	43,746	70,857,492	3,453	630	33,081	590	8,487	290	692	3,556
	2035	17,637	19,401	149,506	20,718	55,484,625	1,985	347	33,503	326	8,600	171	541	2,571
	2050	12,990	13,842	121,821	18,357	52,017,411	1,064	286	33,744	270	8,665	168	509	2,513

Summarized for Tables	yr	ROG	NOx	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N2O
	2022	30,726	43,746	262,664	33,711	9,077	290	692	70,857,492	3,453	3,556
lbs/day	2035	17,637	20,718	149,506	33,851	8,926	171	541	55,484,625	1,985	2,571
	2050	12,990	18,357	121,821	34,030	8,935	168	509	52,017,411	1,064	2,513

	yr	ROG	NOx	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N2O
tons/day	2022	15.4	21.9	131.3	16.9	4.5	0.1	0.3	35,429	1.7	1.8
	2035	8.8	10.4	74.8	16.9	4.5	0.1	0.3	27,742	1.0	1.3
	2050	6.5	9.2	60.9	17.0	4.5	0.1	0.3	26,009	0.5	1.3

ANNUAL		ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	DPM	SOX	N2O
	yr	ROG	TOG	CO	NOx	CO2	CH4	PM10	PM10	Pm2.5	Pm2.5	DPM	SOX	N2O
tons per year	2022	5,607	6,222	47,936	7,984	12,931,492	630	115	6,037	108	1,549	53	126	649
	2035	3,219	3,541	27,285	3,781	10,125,944	362	63	6,114	60	1,569	31	99	469
	2050	2,371	2,526	22,232	3,350	9,493,177	194	52	6,158	49	1,581	31	93	459

	yr	ROG	NOx	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N2O
Summarized for Tables	2022	5,607	7,984	47,936	6,152	1,657	53	126	12,931,492	630	649
	2035	3,219	3,781	27,285	6,178	1,629	31	99	10,125,944	362	469
	2050	2,371	3,350	22,232	6,210	1,631	31	93	9,493,177	194	459

<u>conversions</u>

g to lb	0.002204623
g to ton	1.10231E-06
g to mt	1E-06
GWP CH4	25
GWP N2O	298
VMT multiplier	365

		2022 (SCID: 261)			2035 (SCID: 263)			2050 (SCID 260)			VMT % Chg	VMT % Chg
fc	**fc_desc**	**# of links**	**VMT sum**	**% above 10**	**# of links**	**VMT sum**	**% above 10k**	**# of links**	**VMT sum**	**% above 10**	2022-2035	2022-2050
1	Freeway	1690	39,412,958	91%	2031	41,552,643	78%	2293	42,527,061	73%	5%	7%
2	Prime Arterial	1184	6,292,403	92%	1257	6,820,759	93%	1245	6,818,791	94%	8%	8%
3	Major Arterial	5696	12,589,181	69%	5868	13,356,689	70%	5995	13,675,215	70%	6%	8%
4	Collector	4331	5,158,281	27%	4234	4,852,415	28%	4035	4,537,374	27%	-6%	-14%
5	Local Collector	5606	3,456,927	7%	5741	3,371,504	6%	6023	3,728,757	6%	-3%	7%
6	Rural Collector	487	824,939	5%	446	759,481	4%	202	356,002	6%	-9%	-132%
7	Local (non-circulation element) Road	9145	2,419,673	2%	9190	2,368,335	2%	9378	2,419,239	2%	-2%	0%
8	Freeway Connector Ramp	339	1,532,437	71%	574	1,597,979	42%	785	1,656,990	30%	4%	8%
9	Local Ramp	2096	2,561,479	29%	2168	2,586,107	28%	2153	2,605,059	28%	1%	2%
10	Zone Connector	10126	3,650,181	2%	10161	3,739,599	2%	10172	3,727,087	2%	2%	2%
		30,574	**74,248,278**		**31,509**	**77,265,913**		**32,109**	**78,324,490**		4%	5%
	Total (with zone connectors)	**40,700**	**77,898,460**		**41,670**	**81,005,512**		**42,281**	**82,051,577**		4%	5%

SANDAG 2025 Regional Plan

Mass Emission Emission Factors
SD County, aggregate speeds
All EMFAC emissions are divided by VMT for each pollutant type.
EF includes all exhaust, evap, and process emissions on a per mile basis from EMFAC

EMFAC OUTPUT

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	% of VMT
2022												
San Diego	2022	HHDT	Aggregate	Aggregate	Gasoline	13.56155922	577.746602	577.746602	0	271.339677	0	0.0%
San Diego	2022	HHDT	Aggregate	Aggregate	Diesel	14038.01337	1811813.427	1811813.427	0	208687.5239	0	1.9%
San Diego	2022	HHDT	Aggregate	Aggregate	Natural Gas	932.3544506	61457.38111	61457.38111	0	5879.464078	0	0.1%
San Diego	2022	LDA	Aggregate	Aggregate	Gasoline	1200745.494	46651921.79	46651921.79	0	5588598.821	0	47.9%
San Diego	2022	LDA	Aggregate	Aggregate	Diesel	6495.421997	205721.6287	205721.6287	0	28048.70802	0	0.2%
San Diego	2022	LDA	Aggregate	Aggregate	Electricity	46339.91026	2097108.011	0	2097108.011	232269.7824	809656.776	2.2%
San Diego	2022	LDA	Aggregate	Aggregate	Plug-in Hybrid	26391.59534	1248833.575	648725.1075	600108.4677	109129.2467	181250.6434	1.3%
San Diego	2022	LDT1	Aggregate	Aggregate	Gasoline	138289.5269	4651323.272	4651323.272	0	604313.8523	0	4.8%
San Diego	2022	LDT1	Aggregate	Aggregate	Diesel	74.65063347	1118.115896	1118.115896	0	221.5233551	0	0.0%
San Diego	2022	LDT1	Aggregate	Aggregate	Electricity	174.798842	6613.859084	0	6613.859084	826.8081279	2553.495478	0.0%
San Diego	2022	LDT1	Aggregate	Aggregate	Plug-in Hybrid	49.0526983	2525.068387	1208.710246	1316.358141	202.8329075	397.5793924	0.0%
San Diego	2022	LDT2	Aggregate	Aggregate	Gasoline	556991.8309	21817861.26	21817861.26	0	2599601.648	0	22.4%
San Diego	2022	LDT2	Aggregate	Aggregate	Diesel	1975.910285	82881.65222	82881.65222	0	9486.618456	0	0.1%
San Diego	2022	LDT2	Aggregate	Aggregate	Electricity	1225.207659	46668.62996	0	46668.62996	6320.455698	18017.94294	0.0%
San Diego	2022	LDT2	Aggregate	Aggregate	Plug-in Hybrid	2426.919467	121163.805	60036.3379	61127.46708	10035.31199	18462.31695	0.1%
San Diego	2022	LHDT1	Aggregate	Aggregate	Gasoline	43036.00065	1632171.624	1632171.624	0	641172.2861	0	1.7%
San Diego	2022	LHDT1	Aggregate	Aggregate	Diesel	29910.93808	1147917.245	1147917.245	0	376241.9731	0	1.2%
San Diego	2022	LHDT2	Aggregate	Aggregate	Gasoline	6040.899716	225990.3716	225990.3716	0	90000.40483	0	0.2%
San Diego	2022	LHDT2	Aggregate	Aggregate	Diesel	11103.8354	448078.675	448078.675	0	139672.2807	0	0.5%
San Diego	2022	MCY	Aggregate	Aggregate	Gasoline	71279.32481	436040.4818	436040.4818	0	142558.6496	0	0.4%
San Diego	2022	MDV	Aggregate	Aggregate	Gasoline	337890.4603	12907287.4	12907287.4	0	1554162.558	0	13.3%
San Diego	2022	MDV	Aggregate	Aggregate	Diesel	6001.720384	245783.2636	245783.2636	0	28331.74164	0	0.3%
San Diego	2022	MDV	Aggregate	Aggregate	Electricity	1236.316501	46899.48249	0	46899.48249	6365.784028	18107.07107	0.0%
San Diego	2022	MDV	Aggregate	Aggregate	Plug-in Hybrid	1602.010662	79487.45052	40725.54054	38761.90998	6624.314089	11707.2521	0.1%
San Diego	2022	MH	Aggregate	Aggregate	Gasoline	11510.44919	103886.224	103886.224	0	1151.505337	0	0.1%
San Diego	2022	MH	Aggregate	Aggregate	Diesel	4146.189411	40359.02566	40359.02566	0	414.6189411	0	0.0%
San Diego	2022	MHDT	Aggregate	Aggregate	Gasoline	3632.319527	192778.3811	192778.3811	0	72675.4491	0	0.2%
San Diego	2022	MHDT	Aggregate	Aggregate	Diesel	17130.89001	736028.0774	736028.0774	0	197942.1734	0	0.8%
San Diego	2022	MHDT	Aggregate	Aggregate	Natural Gas	262.4382822	12125.11787	12125.11787	0	3107.875002	0	0.0%
San Diego	2022	OBUS	Aggregate	Aggregate	Gasoline	1248.39658	61727.81874	61727.81874	0	24977.91876	0	0.1%
San Diego	2022	OBUS	Aggregate	Aggregate	Diesel	593.870347	47198.54847	47198.54847	0	7529.981001	0	0.0%
San Diego	2022	OBUS	Aggregate	Aggregate	Natural Gas	86.54839544	5491.319613	5491.319613	0	770.2807195	0	0.0%
San Diego	2022	SBUS	Aggregate	Aggregate	Gasoline	262.6265152	14719.57489	14719.57489	0	1050.506061	0	0.0%
San Diego	2022	SBUS	Aggregate	Aggregate	Diesel	2122.450792	45543.46567	45543.46567	0	30733.08746	0	0.0%
San Diego	2022	SBUS	Aggregate	Aggregate	Natural Gas	15.14060907	396.9399439	396.9399439	0	219.2360193	0	0.0%
San Diego	2022	UBUS	Aggregate	Aggregate	Gasoline	125.9072148	12626.82047	12626.82047	0	503.6288593	0	0.0%
San Diego	2022	UBUS	Aggregate	Aggregate	Natural Gas	856.1690608	105237.2125	105237.2125	0	3424.676243	0	0.1%
											2022 Total	**100%**

SANDAG 2025 Regional Plan

Mass Emission Emission Factors

SD County, aggregate speeds

All EMFAC emissions are divided by VMT

EF includes all exhaust, evap, and process

EMFAC OUTPUT			TOTAL EX (for all but PM) and TOTAL (exh + TW + BW for PM) in tons per day													Fuel		Elec
Region	Calendar Year	Vehicle Category	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	*DPM*	SOX	N2O	gal/mi	mpg	kwh/mi
2022																		
San Diego	2022	HHDT	2.96	3.93	94.70	10.58	2570.78	0.35	0.01	0.12	0.00	0.04		0.03	0.28	0.30	3.3	
San Diego	2022	HHDT	0.07	0.08	0.71	3.39	1786.47	0.00	0.03	0.12	0.03	0.04	*0.03*	0.02	0.28	0.18	5.7	
San Diego	2022	HHDT	0.13	3.14	14.86	2.37	1663.80	2.98	0.00	0.21	0.00	0.07		0.00	0.34	0.21	4.7	
San Diego	2022	LDA	0.13	0.14	1.24	0.08	317.24	0.01	0.00	0.02	0.00	0.00		0.00	0.01	0.04	27.1	
San Diego	2022	LDA	0.04	0.04	0.52	0.21	257.62	0.00	0.02	0.02	0.02	0.00	*0.02*	0.00	0.04	0.03	39.4	
San Diego	2022	LDA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2022	LDA	0.03	0.04	0.37	0.01	163.45	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	52.6	0.3
San Diego	2022	LDT1	0.37	0.40	2.94	0.26	382.69	0.03	0.00	0.02	0.00	0.01		0.00	0.02	0.04	22.5	
San Diego	2022	LDT1	0.35	0.39	1.90	1.55	452.00	0.02	0.28	0.02	0.27	0.01	*0.28*	0.00	0.07	0.04	22.5	
San Diego	2022	LDT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2022	LDT1	0.03	0.03	0.34	0.01	151.13	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	56.9	0.3
San Diego	2022	LDT2	0.15	0.16	1.49	0.14	398.63	0.02	0.00	0.02	0.00	0.01		0.00	0.01	0.05	21.6	
San Diego	2022	LDT2	0.03	0.03	0.26	0.06	350.82	0.00	0.01	0.02	0.01	0.01	*0.01*	0.00	0.06	0.03	28.9	
San Diego	2022	LDT2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0		0.4
San Diego	2022	LDT2	0.03	0.03	0.35	0.01	156.89	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	54.8	0.3
San Diego	2022	LHDT1	0.37	0.41	2.66	0.51	927.38	0.03	0.00	0.09	0.00	0.03		0.01	0.03	0.11	9.3	
San Diego	2022	LHDT1	0.23	0.26	0.70	2.48	637.51	0.01	0.05	0.09	0.05	0.03	*0.05*	0.01	0.10	0.06	15.9	
San Diego	2022	LHDT2	0.31	0.35	2.36	0.47	1038.39	0.03	0.00	0.10	0.00	0.03		0.01	0.03	0.12	8.3	
San Diego	2022	LHDT2	0.20	0.23	0.55	1.80	776.39	0.01	0.04	0.10	0.04	0.03	*0.04*	0.01	0.12	0.08	13.1	
San Diego	2022	MCY	4.95	5.28	17.34	0.67	222.08	0.28	0.00	0.02	0.00	0.01		0.00	0.04	0.03	38.7	
San Diego	2022	MDV	0.20	0.22	1.77	0.20	483.87	0.02	0.00	0.02	0.00	0.01		0.00	0.01	0.06	17.8	
San Diego	2022	MDV	0.03	0.03	0.44	0.12	461.59	0.00	0.01	0.02	0.01	0.01	*0.01*	0.00	0.07	0.05	22.0	
San Diego	2022	MDV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2022	MDV	0.03	0.03	0.36	0.01	163.71	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	52.6	0.3
San Diego	2022	MH	0.80	0.84	2.58	0.53	1951.96	0.02	0.00	0.06	0.00	0.02		0.02	0.03	0.23	4.4	
San Diego	2022	MH	0.14	0.16	0.47	4.80	1081.21	0.01	0.13	0.06	0.12	0.02	*0.13*	0.01	0.17	0.11	9.4	
San Diego	2022	MHDT	0.46	0.54	5.24	0.87	1866.59	0.05	0.00	0.06	0.00	0.02		0.02	0.04	0.22	4.6	
San Diego	2022	MHDT	0.06	0.06	0.33	2.56	1215.50	0.00	0.02	0.06	0.02	0.02	*0.02*	0.01	0.19	0.12	8.4	
San Diego	2022	MHDT	0.01	1.05	3.60	0.23	1082.04	1.03	0.00	0.06	0.00	0.02		0.00	0.22	0.14	7.3	
San Diego	2022	OBUS	0.37	0.44	4.54	0.93	1834.26	0.04	0.00	0.06	0.00	0.02		0.02	0.05	0.21	4.7	
San Diego	2022	OBUS	0.12	0.13	0.50	2.74	1506.63	0.01	0.05	0.07	0.04	0.02	*0.05*	0.01	0.24	0.15	6.7	
San Diego	2022	OBUS	0.01	0.88	3.40	0.20	1095.68	0.86	0.00	0.06	0.00	0.02		0.00	0.22	0.14	7.2	
San Diego	2022	SBUS	0.58	0.76	7.47	1.59	886.15	0.09	0.00	0.05	0.00	0.02		0.01	0.07	0.10	9.7	
San Diego	2022	SBUS	0.10	0.11	0.42	8.65	1266.49	0.00	0.04	0.06	0.04	0.02	*0.04*	0.01	0.20	0.12	8.0	
San Diego	2022	SBUS	0.05	3.68	10.50	0.62	1342.52	3.60	0.00	0.06	0.00	0.02		0.00	0.27	0.17	5.8	
San Diego	2022	UBUS	0.03	0.03	0.81	0.07	1004.89	0.00	0.00	0.10	0.00	0.03		0.01	0.01	0.12	8.6	
San Diego	2022	UBUS	0.03	2.08	30.53	0.41	1515.20	2.03	0.00	0.15	0.00	0.05		0.00	0.31	0.19	5.2	
			0.18	**0.20**	**1.53**	**0.25**	**412.59**	**0.02**	**0.00**	**0.02**	**0.00**	**0.01**	***0.002***	**0.00**	**0.02**	**0.05**	**23.0**	-

SANDAG 2025 Regional Plan

Mass Emission Emission Factors
SD County, aggregate speeds
All EMFAC emissions are divided by VMT
EF includes all exhaust, evap, and process

EMFAC OUTPUT			TOTAL EX (for all but PM) and TOTAL (exh + TW + BW for PM) in tons per day												Fuel	Elec
Region	Calendar Year	Vehicle Category	ROG_TOTAL	TOG_TOTAL	CO_TOTEX	NOx_TOTEX	CO2_TOTEX	CH4_TOTEX	PM10_TOTEX	PM10 PMTW + PMBW	PM2.5_TOTEX	PM2.5 PMTW + PMBW	SOx_TOTEX	N2O_TOTEX	gal/day	kwh/day
2022																
San Diego	2022	HHDT	0.0	0.0	0.1	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	173	0
San Diego	2022	HHDT	0.1	0.2	1.4	6.8	3567.9	0.0	0.1	0.2	0.1	0.1	0.0	0.6	318,719	0
San Diego	2022	HHDT	0.0	0.2	1.0	0.2	112.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	13,028	0
San Diego	2022	LDA	6.9	7.4	63.9	4.2	16314.2	0.6	0.1	0.8	0.1	0.2	0.2	0.5	1,720,311	0
San Diego	2022	LDA	0.0	0.0	0.1	0.0	58.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,219	0
San Diego	2022	LDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	809,657
San Diego	2022	LDA	0.0	0.0	0.5	0.0	225.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23,726	181,251
San Diego	2022	LDT1	1.9	2.1	15.1	1.3	1962.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	206,906	0
San Diego	2022	LDT1	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50	0
San Diego	2022	LDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2,553
San Diego	2022	LDT1	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44	398
San Diego	2022	LDT2	3.5	3.9	35.9	3.3	9587.0	0.4	0.1	0.4	0.0	0.1	0.1	0.3	1,010,934	0
San Diego	2022	LDT2	0.0	0.0	0.0	0.0	32.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,863	0
San Diego	2022	LDT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	18,018
San Diego	2022	LDT2	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,210	18,462
San Diego	2022	LHDT1	0.7	0.7	4.8	0.9	1668.5	0.1	0.0	0.2	0.0	0.1	0.0	0.1	175,942	0
San Diego	2022	LHDT1	0.3	0.3	0.9	3.1	806.7	0.0	0.1	0.1	0.1	0.0	0.0	0.1	72,060	0
San Diego	2022	LHDT2	0.1	0.1	0.6	0.1	258.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27,277	0
San Diego	2022	LHDT2	0.1	0.1	0.3	0.9	383.5	0.0	0.0	0.1	0.0	0.0	0.0	0.1	34,256	0
San Diego	2022	MCY	2.4	2.5	8.3	0.3	106.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	11,256	0
San Diego	2022	MDV	2.8	3.1	25.2	2.8	6884.4	0.3	0.0	0.2	0.0	0.1	0.1	0.2	725,949	0
San Diego	2022	MDV	0.0	0.0	0.1	0.0	125.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11,171	0
San Diego	2022	MDV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	18,107
San Diego	2022	MDV	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,513	11,707
San Diego	2022	MH	0.1	0.1	0.3	0.1	223.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23,571	0
San Diego	2022	MH	0.0	0.0	0.0	0.2	48.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,297	0
San Diego	2022	MHDT	0.1	0.1	1.1	0.2	396.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41,827	0
San Diego	2022	MHDT	0.0	0.1	0.3	2.1	986.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	88,095	0
San Diego	2022	MHDT	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,672	0
San Diego	2022	OBUS	0.0	0.0	0.3	0.1	124.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13,161	0
San Diego	2022	OBUS	0.0	0.0	0.0	0.1	78.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,002	0
San Diego	2022	OBUS	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	767	0
San Diego	2022	SBUS	0.0	0.0	0.1	0.0	14.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,516	0
San Diego	2022	SBUS	0.0	0.0	0.0	0.4	63.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,680	0
San Diego	2022	SBUS	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68	0
San Diego	2022	UBUS	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,475	0
San Diego	2022	UBUS	0.0	0.2	3.5	0.0	175.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	20,316	0

SANDAG 2025 Regional Plan

Mass Emission Emission Factors

SD County, aggregate speeds

All EMFAC emissions are divided by VMT for each pollutant type.

EF includes all exhaust, evap, and process emissions on a per mile basis from EMFAC

EMFAC OUTPUT

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	% of VMT
2035												
San Diego	2035	HHDT	Aggregate	Aggregate	Gasoline	3.23332373	480.1027128	480.1027128	0	64.69234118	0	0.0%
San Diego	2035	HHDT	Aggregate	Aggregate	Diesel	16902.72746	2148487.573	2148487.573	0	262271.5841	0	2.0%
San Diego	2035	HHDT	Aggregate	Aggregate	Electricity	2381.453167	263758.8697	0	263758.8697	29645.97965	486380.1331	0.2%
San Diego	2035	HHDT	Aggregate	Aggregate	Natural Gas	1329.618849	81625.04873	81625.04873	0	8167.046484	0	0.1%
San Diego	2035	LDA	Aggregate	Aggregate	Gasoline	1110759.184	46347911.89	46347911.89	0	5164618.829	0	43.9%
San Diego	2035	LDA	Aggregate	Aggregate	Diesel	1519.306492	45149.63773	45149.63773	0	6406.123341	0	0.0%
San Diego	2035	LDA	Aggregate	Aggregate	Electricity	130716.132	6138023.808	0	6138023.808	626679.2465	2369783.789	5.8%
San Diego	2035	LDA	Aggregate	Aggregate	Plug-in Hybrid	49294.49561	2183801.775	922631.4992	1261170.275	203832.7393	380911.0121	2.1%
San Diego	2035	LDT1	Aggregate	Aggregate	Gasoline	93857.68538	3390000.626	3390000.626	0	407965.6148	0	3.2%
San Diego	2035	LDT1	Aggregate	Aggregate	Diesel	0.647733662	29.05996437	29.05996437	0	3.105947717	0	0.0%
San Diego	2035	LDT1	Aggregate	Aggregate	Electricity	1344.694667	67210.15522	0	67210.15522	6574.167305	25948.66707	0.1%
San Diego	2035	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1036.853104	49528.79652	20266.51075	29262.28577	4287.387584	8838.082459	0.0%
San Diego	2035	LDT2	Aggregate	Aggregate	Gasoline	564854.8326	23373410.67	23373410.67	0	2615349.306	0	22.1%
San Diego	2035	LDT2	Aggregate	Aggregate	Diesel	2124.456927	88897.51513	88897.51513	0	9911.945015	0	0.1%
San Diego	2035	LDT2	Aggregate	Aggregate	Electricity	15409.83751	531116.4945	0	531116.4945	75330.98179	205054.8023	0.5%
San Diego	2035	LDT2	Aggregate	Aggregate	Plug-in Hybrid	11787.55999	534718.9128	222062.8091	312656.1037	48741.56056	94431.46195	0.5%
San Diego	2035	LHDT1	Aggregate	Aggregate	Gasoline	34320.5996	1382832.606	1382832.606	0	511325.7963	0	1.3%
San Diego	2035	LHDT1	Aggregate	Aggregate	Diesel	26680.75033	1039152.429	1039152.429	0	335610.2747	0	1.0%
San Diego	2035	LHDT1	Aggregate	Aggregate	Electricity	12327.98337	735137.5642	0	735137.5642	172166.1928	478319.5318	0.7%
San Diego	2035	LHDT2	Aggregate	Aggregate	Gasoline	4925.019313	188890.3519	188890.3519	0	73375.44949	0	0.2%
San Diego	2035	LHDT2	Aggregate	Aggregate	Diesel	12150.49033	468652.3681	468652.3681	0	152837.8831	0	0.4%
San Diego	2035	LHDT2	Aggregate	Aggregate	Electricity	3263.880242	185714.7364	0	185714.7364	43252.03233	118913.2816	0.2%
San Diego	2035	MCY	Aggregate	Aggregate	Gasoline	67054.21067	400554.5443	400554.5443	0	134108.4213	0	0.4%
San Diego	2035	MDV	Aggregate	Aggregate	Gasoline	327359.1965	13492450.18	13492450.18	0	1503880.399	0	12.8%
San Diego	2035	MDV	Aggregate	Aggregate	Diesel	4387.313403	168660.2634	168660.2634	0	19765.18343	0	0.2%
San Diego	2035	MDV	Aggregate	Aggregate	Electricity	14481.72767	495120.2713	0	495120.2713	70609.91221	191157.2892	0.5%
San Diego	2035	MDV	Aggregate	Aggregate	Plug-in Hybrid	7296.103911	337826.5912	140300.5042	197526.0869	30169.38967	59658.76548	0.3%
San Diego	2035	MH	Aggregate	Aggregate	Gasoline	5736.294014	58799.13712	58799.13712	0	573.8588532	0	0.1%
San Diego	2035	MH	Aggregate	Aggregate	Diesel	3571.291212	33466.80879	33466.80879	0	357.1291212	0	0.0%
San Diego	2035	MHDT	Aggregate	Aggregate	Gasoline	2684.411525	154954.0761	154954.0761	0	53709.7058	0	0.1%
San Diego	2035	MHDT	Aggregate	Aggregate	Diesel	16869.5236	653260.5848	653260.5848	0	196770.897	0	0.6%
San Diego	2035	MHDT	Aggregate	Aggregate	Electricity	5423.857153	287879.6953	0	287879.6953	69620.52433	315029.9638	0.3%
San Diego	2035	MHDT	Aggregate	Aggregate	Natural Gas	305.4892069	11018.65808	11018.65808	0	3593.241797	0	0.0%
San Diego	2035	OBUS	Aggregate	Aggregate	Gasoline	756.7052618	30803.79026	30803.79026	0	15140.15888	0	0.0%
San Diego	2035	OBUS	Aggregate	Aggregate	Diesel	702.6192357	50840.96885	50840.96885	0	9093.369676	0	0.0%
San Diego	2035	OBUS	Aggregate	Aggregate	Electricity	132.5179545	11904.72116	0	11904.72116	2651.419234	13205.71895	0.0%
San Diego	2035	OBUS	Aggregate	Aggregate	Natural Gas	101.4503332	5213.393453	5213.393453	0	902.9079651	0	0.0%
San Diego	2035	SBUS	Aggregate	Aggregate	Gasoline	276.759639	16522.8023	16522.8023	0	1107.038556	0	0.0%
San Diego	2035	SBUS	Aggregate	Aggregate	Diesel	1621.596239	35557.75102	35557.75102	0	23480.71354	0	0.0%
San Diego	2035	SBUS	Aggregate	Aggregate	Electricity	435.4153046	13718.93538	0	13718.93538	5605.363351	14452.28917	0.0%
San Diego	2035	SBUS	Aggregate	Aggregate	Natural Gas	28.35701133	659.1718528	659.1718528	0	410.609524	0	0.0%
San Diego	2035	UBUS	Aggregate	Aggregate	Gasoline	179.2514382	18446.75727	18446.75727	0	717.0057527	0	0.0%
San Diego	2035	UBUS	Aggregate	Aggregate	Electricity	740.4326744	90624.44581	0	90624.44581	2961.730698	157980.5322	0.1%
San Diego	2035	UBUS	Aggregate	Aggregate	Natural Gas	536.8488912	65734.82603	65734.82603	0	2147.395565	0	0.1%
											2035 Total	**100%**

SANDAG 2025 Regional Plan

Mass Emission Emission Factors
SD County, aggregate speeds
All EMFAC emissions are divided by VMT
EF includes all exhaust, evap, and process

EMFAC OUTPUT			TOTAL EX (for all but PM) and TOTAL (exh + TW + BW for PM) in tons per day													Fuel		Elec
Region	Calendar Year	Vehicle Category	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	*DPM*	SOX	N2O	gal/mi	mpg	kwh/mi
2035																		
San Diego	2035	HHDT	0.48	0.69	30.70	2.56	1896.18	0.10	0.00	0.11	0.00	0.04		0.02	0.11	0.22	4.5	
San Diego	2035	HHDT	0.06	0.07	0.71	2.23	1449.39	0.00	0.03	0.12	0.03	0.04	*0.03*	0.01	0.23	0.14	7.0	
San Diego	2035	HHDT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.02		0.00	0.00	0.00		1.8
San Diego	2035	HHDT	0.04	1.26	10.80	0.75	1467.31	1.21	0.00	0.22	0.00	0.07		0.00	0.30	0.19	5.3	
San Diego	2035	LDA	0.08	0.08	0.73	0.04	255.32	0.01	0.00	0.02	0.00	0.00		0.00	0.01	0.03	33.7	
San Diego	2035	LDA	0.02	0.02	0.42	0.06	221.90	0.00	0.00	0.02	0.00	0.00	*0.00*	0.00	0.03	0.02	45.8	
San Diego	2035	LDA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2035	LDA	0.04	0.04	0.33	0.01	134.12	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	64.1	0.3
San Diego	2035	LDT1	0.19	0.20	1.19	0.09	313.58	0.01	0.00	0.02	0.00	0.01		0.00	0.01	0.04	27.4	
San Diego	2035	LDT1	0.03	0.03	0.25	0.04	370.52	0.00	0.00	0.02	0.00	0.01	*0.00*	0.00	0.06	0.04	27.4	
San Diego	2035	LDT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2035	LDT1	0.03	0.03	0.31	0.01	130.25	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	66.1	0.3
San Diego	2035	LDT2	0.09	0.09	0.89	0.06	312.75	0.01	0.00	0.02	0.00	0.01		0.00	0.01	0.04	27.5	
San Diego	2035	LDT2	0.03	0.03	0.27	0.04	284.62	0.00	0.00	0.02	0.00	0.01	*0.00*	0.00	0.04	0.03	35.7	
San Diego	2035	LDT2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2035	LDT2	0.03	0.03	0.32	0.01	132.78	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	64.8	0.3
San Diego	2035	LHDT1	0.19	0.20	1.94	0.23	789.35	0.01	0.00	0.09	0.00	0.03		0.01	0.02	0.09	10.9	
San Diego	2035	LHDT1	0.12	0.14	0.34	0.74	613.04	0.01	0.03	0.09	0.03	0.03	*0.03*	0.01	0.10	0.06	16.6	
San Diego	2035	LHDT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.02		0.00	0.00	0.00		0.7
San Diego	2035	LHDT2	0.20	0.21	1.92	0.23	896.47	0.01	0.00	0.10	0.00	0.03		0.01	0.02	0.10	9.6	
San Diego	2035	LHDT2	0.13	0.15	0.35	0.71	720.64	0.01	0.03	0.10	0.03	0.03	*0.03*	0.01	0.11	0.07	14.1	
San Diego	2035	LHDT2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.02		0.00	0.00	0.00		0.6
San Diego	2035	MCY	4.67	4.96	14.16	0.55	215.19	0.23	0.00	0.02	0.00	0.01		0.00	0.04	0.03	40.0	
San Diego	2035	MDV	0.10	0.11	0.92	0.06	379.13	0.01	0.00	0.02	0.00	0.01		0.00	0.01	0.04	22.7	
San Diego	2035	MDV	0.01	0.02	0.35	0.03	380.93	0.00	0.00	0.02	0.00	0.01	*0.00*	0.00	0.06	0.04	26.7	
San Diego	2035	MDV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2035	MDV	0.03	0.03	0.32	0.01	133.99	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	64.2	0.3
San Diego	2035	MH	0.41	0.42	0.29	0.16	1947.96	0.01	0.00	0.06	0.00	0.02		0.02	0.02	0.23	4.4	
San Diego	2035	MH	0.11	0.13	0.36	3.50	1085.43	0.01	0.07	0.06	0.07	0.02	*0.07*	0.01	0.17	0.11	9.4	
San Diego	2035	MHDT	0.21	0.23	1.92	0.24	1642.87	0.02	0.00	0.06	0.00	0.02		0.02	0.02	0.19	5.2	
San Diego	2035	MHDT	0.01	0.02	0.25	1.20	1127.23	0.00	0.00	0.06	0.00	0.02	*0.00*	0.01	0.18	0.11	9.0	
San Diego	2035	MHDT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01		0.00	0.00	0.00		1.1
San Diego	2035	MHDT	0.02	1.14	3.95	0.23	1076.23	1.11	0.00	0.06	0.00	0.02		0.00	0.22	0.14	7.3	
San Diego	2035	OBUS	0.38	0.42	3.02	0.48	1645.83	0.03	0.00	0.06	0.00	0.02		0.02	0.03	0.19	5.2	
San Diego	2035	OBUS	0.06	0.07	0.40	1.61	1354.41	0.00	0.03	0.07	0.03	0.02	*0.03*	0.01	0.21	0.13	7.5	
San Diego	2035	OBUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01		0.00	0.00	0.00		1.1
San Diego	2035	OBUS	0.01	0.92	3.53	0.15	998.39	0.90	0.00	0.06	0.00	0.02		0.00	0.20	0.13	7.9	
San Diego	2035	SBUS	0.29	0.38	2.16	0.20	797.96	0.05	0.00	0.05	0.00	0.02		0.01	0.02	0.09	10.8	
San Diego	2035	SBUS	0.04	0.04	0.39	2.53	1164.52	0.00	0.01	0.06	0.01	0.02	*0.01*	0.01	0.18	0.11	8.7	
San Diego	2035	SBUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01		0.00	0.00	0.00		1.1
San Diego	2035	SBUS	0.05	3.22	8.84	0.47	1283.98	3.15	0.00	0.06	0.00	0.02		0.00	0.26	0.16	6.1	
San Diego	2035	UBUS	0.02	0.02	0.81	0.04	866.00	0.00	0.00	0.10	0.00	0.03		0.01	0.01	0.10	9.9	
San Diego	2035	UBUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.03		0.00	0.00	0.00		1.7
San Diego	2035	UBUS	0.06	4.59	53.36	0.06	1361.23	4.49	0.00	0.15	0.00	0.05		0.00	0.28	0.17	5.8	
			0.10	**0.11**	**0.84**	**0.12**	**310.69**	**0.01**	**0.00**	**0.02**	**0.00**	**0.01**	***0.001***	**0.00**	**0.01**	**0.04**	**27.4**	**-**

SANDAG 2025 Regional Plan

Mass Emission Emission Factors
SD County, aggregate speeds
All EMFAC emissions are divided by VMT
EF includes all exhaust, evap, and process

EMFAC OUTPUT			TOTAL EX (for all but PM) and TOTAL (exh + TW + BW for PM) in tons per day												Fuel	Elec
Region	Calendar Year	Vehicle Category	ROG_TOTAL	TOG_TOTAL	CO_TOTEX	NOx_TOTEX	CO2_TOTEX	CH4_TOTEX	PM10_TOTEX	PM10 PMTW + PMBW	PM2.5_TOTEX	PM2.5 PMTW + PMBW	SOx_TOTEX	N2O_TOTEX	gal/day	kwh/day
2035																
San Diego	2035	HHDT	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	106	0
San Diego	2035	HHDT	0.1	0.2	1.7	5.3	3432.6	0.0	0.1	0.3	0.1	0.1	0.0	0.5	306632	0
San Diego	2035	HHDT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	486,380
San Diego	2035	HHDT	0.0	0.1	1.0	0.1	132.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	15260	0
San Diego	2035	LDA	4.0	4.2	37.5	2.2	13044.2	0.3	0.1	0.8	0.0	0.2	0.1	0.3	1375497	0
San Diego	2035	LDA	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	987	0
San Diego	2035	LDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0	2,369,784
San Diego	2035	LDA	0.1	0.1	0.8	0.0	322.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34046	380,911
San Diego	2035	LDT1	0.7	0.7	4.5	0.3	1171.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	123566	0
San Diego	2035	LDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0
San Diego	2035	LDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	25,949
San Diego	2035	LDT1	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	750	8,838
San Diego	2035	LDT2	2.3	2.4	23.0	1.5	8057.9	0.2	0.0	0.4	0.0	0.1	0.1	0.2	849697	0
San Diego	2035	LDT2	0.0	0.0	0.0	0.0	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2491	0
San Diego	2035	LDT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	205,055
San Diego	2035	LDT2	0.0	0.0	0.2	0.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8253	94,431
San Diego	2035	LHDT1	0.3	0.3	3.0	0.3	1203.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	126877	0
San Diego	2035	LHDT1	0.1	0.2	0.4	0.8	702.2	0.0	0.0	0.1	0.0	0.0	0.0	0.1	62729	0
San Diego	2035	LHDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	478,320
San Diego	2035	LHDT2	0.0	0.0	0.4	0.0	186.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19683	0
San Diego	2035	LHDT2	0.1	0.1	0.2	0.4	372.3	0.0	0.0	0.1	0.0	0.0	0.0	0.1	33256	0
San Diego	2035	LHDT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	118,913
San Diego	2035	MCY	2.1	2.2	6.3	0.2	95.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	10019	0
San Diego	2035	MDV	1.5	1.6	13.7	1.0	5638.8	0.1	0.0	0.3	0.0	0.1	0.1	0.1	594601	0
San Diego	2035	MDV	0.0	0.0	0.1	0.0	70.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6326	0
San Diego	2035	MDV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	191,157
San Diego	2035	MDV	0.0	0.0	0.1	0.0	49.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5262	59,659
San Diego	2035	MH	0.0	0.0	0.0	0.0	126.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13314	0
San Diego	2035	MH	0.0	0.0	0.0	0.1	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3577	0
San Diego	2035	MHDT	0.0	0.0	0.3	0.0	280.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29591	0
San Diego	2035	MHDT	0.0	0.0	0.2	0.9	811.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1	72510	0
San Diego	2035	MHDT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	315,030
San Diego	2035	MHDT	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1511	0
San Diego	2035	OBUS	0.0	0.0	0.1	0.0	55.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5893	0
San Diego	2035	OBUS	0.0	0.0	0.0	0.1	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6781	0
San Diego	2035	OBUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	13,206
San Diego	2035	OBUS	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	663	0
San Diego	2035	SBUS	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1533	0
San Diego	2035	SBUS	0.0	0.0	0.0	0.1	45.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4077	0
San Diego	2035	SBUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	14,452
San Diego	2035	SBUS	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	108	0
San Diego	2035	UBUS	0.0	0.0	0.0	0.0	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1857	0
San Diego	2035	UBUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	157,981
San Diego	2035	UBUS	0.0	0.3	3.9	0.0	98.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	11401	0

SANDAG 2025 Regional Plan

Mass Emission Emission Factors

SD County, aggregate speeds

All EMFAC emissions are divided by VMT for each pollutant type.

EF includes all exhaust, evap, and process emissions on a per mile basis from EMFAC

EMFAC OUTPUT

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	% of VMT
2050												
San Diego	2050	HHDT	Aggregate	Aggregate	Gasoline	2.452446189	342	341.61	0.00	49.07	0	0.0%
San Diego	2050	HHDT	Aggregate	Aggregate	Diesel	22099.95195	3194533	3194533.44	0.00	373737.22	0	2.9%
San Diego	2050	HHDT	Aggregate	Aggregate	Electricity	7281.592341	660726	0.00	660726.23	85816.31	1219463.386	0.6%
San Diego	2050	HHDT	Aggregate	Aggregate	Natural Gas	1097.261886	68433	68432.91	0.00	7274.59	0	0.1%
San Diego	2050	LDA	Aggregate	Aggregate	Gasoline	1146207.31	47755582	47755582.22	0.00	5350191.81	0	42.9%
San Diego	2050	LDA	Aggregate	Aggregate	Diesel	770.6086424	28001	28000.91	0.00	3407.35	0	0.0%
San Diego	2050	LDA	Aggregate	Aggregate	Electricity	159411.415	6996707	0.00	6996707.49	749382.66	2701306.561	6.3%
San Diego	2050	LDA	Aggregate	Aggregate	Plug-in Hybrid	53992.45635	2281208	928869.16	1352338.45	223258.81	408446.5187	2.1%
San Diego	2050	LDT1	Aggregate	Aggregate	Gasoline	79440.64221	3062406	3062405.87	0.00	357568.54	0	2.8%
San Diego	2050	LDT1	Aggregate	Aggregate	Diesel	0.900072564	36	36.29	0.00	4.15	0	0.0%
San Diego	2050	LDT1	Aggregate	Aggregate	Electricity	2434.561036	104185	0.00	104184.67	11345.10	40223.88063	0.1%
San Diego	2050	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1849.505045	76168	30989.52	45178.61	7647.70	13645.28818	0.1%
San Diego	2050	LDT2	Aggregate	Aggregate	Gasoline	582476.1491	23920932	23920932.35	0.00	2701874.38	0	21.5%
San Diego	2050	LDT2	Aggregate	Aggregate	Diesel	2241.84305	91951	91950.62	0.00	10394.56	0	0.1%
San Diego	2050	LDT2	Aggregate	Aggregate	Electricity	23794.5107	723757	0.00	723757.22	111930.69	279430.0224	0.7%
San Diego	2050	LDT2	Aggregate	Aggregate	Plug-in Hybrid	16114.25388	667926	271936.85	395988.97	66632.44	119600.4711	0.6%
San Diego	2050	LHDT1	Aggregate	Aggregate	Gasoline	23526.90479	954197	954197.39	0.00	350515.83	0	0.9%
San Diego	2050	LHDT1	Aggregate	Aggregate	Diesel	18897.2583	725721	725721.18	0.00	237703.74	0	0.7%
San Diego	2050	LHDT1	Aggregate	Aggregate	Electricity	35904.84914	1659415	0.00	1659414.52	499722.89	1078838.794	1.5%
San Diego	2050	LHDT2	Aggregate	Aggregate	Gasoline	3362.222203	128757	128756.97	0.00	50092.10	0	0.1%
San Diego	2050	LHDT2	Aggregate	Aggregate	Diesel	9410.853147	342734	342734.36	0.00	118376.69	0	0.3%
San Diego	2050	LHDT2	Aggregate	Aggregate	Electricity	9874.99119	437064	0.00	437064.40	130645.93	279736.1468	0.4%
San Diego	2050	MCY	Aggregate	Aggregate	Gasoline	66182.70845	391982	391981.66	0.00	132365.42	0	0.4%
San Diego	2050	MDV	Aggregate	Aggregate	Gasoline	337243.7802	13848443	13848443.39	0.00	1554526.72	0	12.5%
San Diego	2050	MDV	Aggregate	Aggregate	Diesel	3765.778405	150833	150832.89	0.00	17153.98	0	0.1%
San Diego	2050	MDV	Aggregate	Aggregate	Electricity	21869.33269	655563	0.00	655562.67	102319.50	253101.2982	0.6%
San Diego	2050	MDV	Aggregate	Aggregate	Plug-in Hybrid	10285.53373	425727	173340.48	252386.79	42530.68	76228.33376	0.4%
San Diego	2050	MH	Aggregate	Aggregate	Gasoline	4120.045831	48347	48347.38	0.00	412.17	0	0.0%
San Diego	2050	MH	Aggregate	Aggregate	Diesel	2767.492476	28038	28038.49	0.00	276.75	0	0.0%
San Diego	2050	MHDT	Aggregate	Aggregate	Gasoline	1739.080311	98058	98058.36	0.00	34795.52	0	0.1%
San Diego	2050	MHDT	Aggregate	Aggregate	Diesel	13105.47384	539005	539004.91	0.00	154678.18	0	0.5%
San Diego	2050	MHDT	Aggregate	Aggregate	Electricity	16064.93676	729155	0.00	729155.27	205437.42	794275.2285	0.7%
San Diego	2050	MHDT	Aggregate	Aggregate	Natural Gas	198.2858788	7551	7550.81	0.00	2325.84	0	0.0%
San Diego	2050	OBUS	Aggregate	Aggregate	Gasoline	403.625802	17180	17180.31	0.00	8075.75	0	0.0%
San Diego	2050	OBUS	Aggregate	Aggregate	Diesel	746.6480013	53967	53967.06	0.00	9604.75	0	0.0%
San Diego	2050	OBUS	Aggregate	Aggregate	Electricity	322.7398386	23339	0.00	23339.42	6457.38	25890.04512	0.0%
San Diego	2050	OBUS	Aggregate	Aggregate	Natural Gas	106.0815371	5312	5311.77	0.00	944.13	0	0.0%
San Diego	2050	SBUS	Aggregate	Aggregate	Gasoline	222.6130928	13140	13139.84	0.00	890.45	0	0.0%
San Diego	2050	SBUS	Aggregate	Aggregate	Diesel	1055.801782	21642	21642.14	0.00	15288.01	0	0.0%
San Diego	2050	SBUS	Aggregate	Aggregate	Electricity	1232.463333	37037	0.00	37036.61	15505.47	39016.42308	0.0%
San Diego	2050	SBUS	Aggregate	Aggregate	Natural Gas	21.91977118	448	448.25	0.00	317.40	0	0.0%
San Diego	2050	UBUS	Aggregate	Aggregate	Gasoline	235.9001055	24774	24773.53	0.00	943.60	0	0.0%
San Diego	2050	UBUS	Aggregate	Aggregate	Electricity	1768.082969	215735	0.00	215734.80	7072.33	376078.4213	0.2%
											2050 Total	**100%**

SANDAG 2025 Regional Plan

Mass Emission Emission Factors
SD County, aggregate speeds
All EMFAC emissions are divided by VMT
EF includes all exhaust, evap, and process

EMFAC OUTPUT			TOTAL EX (for all but PM) and TOTAL (exh + TW + BW for PM) in tons per day													Fuel		Elec
Region	Calendar Year	Vehicle Category	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	*DPM*	SOX	N2O	gal/mi	mpg	kwh/mi
2050																		
San Diego	2050	HHDT	0.47	0.66	29.72	2.72	1801.16	0.09	0.00	0.12	0.00	0.04		0.02	0.12	0.21	4.8	
San Diego	2050	HHDT	0.06	0.06	0.71	2.01	1356.85	0.00	0.03	0.12	0.03	0.04	*0.03*	0.01	0.21	0.13	7.5	
San Diego	2050	HHDT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.02		0.00	0.00	0.00		1.8
San Diego	2050	HHDT	0.01	0.78	9.23	0.26	1385.58	0.76	0.00	0.21	0.00	0.07		0.00	0.28	0.18	5.7	
San Diego	2050	LDA	0.06	0.06	0.65	0.04	243.78	0.00	0.00	0.02	0.00	0.00		0.00	0.01	0.03	35.3	
San Diego	2050	LDA	0.01	0.01	0.26	0.01	194.33	0.00	0.00	0.02	0.00	0.00	*0.00*	0.00	0.03	0.02	52.3	
San Diego	2050	LDA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2050	LDA	0.05	0.05	0.32	0.01	128.34	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.01	67.0	0.3
San Diego	2050	LDT1	0.09	0.09	0.70	0.04	282.79	0.01	0.00	0.02	0.00	0.01		0.00	0.01	0.03	30.4	
San Diego	2050	LDT1	0.02	0.03	0.26	0.03	362.31	0.00	0.00	0.02	0.00	0.01	*0.00*	0.00	0.06	0.04	28.0	
San Diego	2050	LDT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2050	LDT1	0.05	0.06	0.33	0.01	129.20	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	66.6	0.3
San Diego	2050	LDT2	0.07	0.07	0.79	0.04	293.11	0.01	0.00	0.02	0.00	0.01		0.00	0.01	0.03	29.4	
San Diego	2050	LDT2	0.02	0.03	0.26	0.03	268.49	0.00	0.00	0.02	0.00	0.01	*0.00*	0.00	0.04	0.03	37.8	
San Diego	2050	LDT2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2050	LDT2	0.05	0.05	0.33	0.01	129.56	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	66.4	0.3
San Diego	2050	LHDT1	0.16	0.17	1.90	0.15	750.60	0.01	0.00	0.09	0.00	0.03		0.01	0.02	0.09	11.5	
San Diego	2050	LHDT1	0.09	0.10	0.23	0.23	598.24	0.00	0.02	0.09	0.02	0.03	*0.02*	0.01	0.09	0.06	17.0	
San Diego	2050	LHDT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.02		0.00	0.00	0.00		0.7
San Diego	2050	LHDT2	0.18	0.19	1.99	0.14	846.09	0.01	0.00	0.10	0.00	0.03		0.01	0.02	0.10	10.2	
San Diego	2050	LHDT2	0.11	0.12	0.28	0.32	700.76	0.00	0.02	0.10	0.02	0.03	*0.02*	0.01	0.11	0.07	14.5	
San Diego	2050	LHDT2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.02		0.00	0.00	0.00		0.6
San Diego	2050	MCY	4.34	4.61	12.67	0.49	210.38	0.20	0.00	0.02	0.00	0.01		0.00	0.04	0.02	40.9	
San Diego	2050	MDV	0.07	0.08	0.80	0.05	354.89	0.01	0.00	0.02	0.00	0.01		0.00	0.01	0.04	24.2	
San Diego	2050	MDV	0.01	0.01	0.27	0.01	347.11	0.00	0.00	0.02	0.00	0.01	*0.00*	0.00	0.05	0.03	29.3	
San Diego	2050	MDV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.00		0.4
San Diego	2050	MDV	0.05	0.05	0.33	0.01	131.02	0.00	0.00	0.01	0.00	0.00		0.00	0.00	0.02	65.7	0.3
San Diego	2050	MH	0.21	0.21	0.16	0.22	1947.68	0.00	0.00	0.06	0.00	0.02		0.02	0.02	0.23	4.4	
San Diego	2050	MH	0.08	0.10	0.24	2.47	1090.20	0.00	0.02	0.06	0.02	0.02	*0.02*	0.01	0.17	0.11	9.3	
San Diego	2050	MHDT	0.21	0.23	1.48	0.24	1550.40	0.02	0.00	0.06	0.00	0.02		0.02	0.02	0.18	5.5	
San Diego	2050	MHDT	0.01	0.01	0.23	0.79	1051.33	0.00	0.00	0.06	0.00	0.02	*0.00*	0.01	0.17	0.10	9.7	
San Diego	2050	MHDT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01		0.00	0.00	0.00		1.1
San Diego	2050	MHDT	0.02	1.10	4.02	0.20	1040.55	1.08	0.00	0.06	0.00	0.02		0.00	0.21	0.13	7.5	
San Diego	2050	OBUS	0.27	0.29	1.32	0.40	1532.51	0.02	0.00	0.06	0.00	0.02		0.02	0.03	0.18	5.6	
San Diego	2050	OBUS	0.03	0.03	0.31	0.99	1296.70	0.00	0.01	0.08	0.01	0.03	*0.01*	0.01	0.20	0.13	7.8	
San Diego	2050	OBUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01		0.00	0.00	0.00		1.1
San Diego	2050	OBUS	0.01	0.93	3.58	0.13	960.91	0.91	0.00	0.06	0.00	0.02		0.00	0.20	0.12	8.2	
San Diego	2050	SBUS	0.32	0.41	2.04	0.11	738.46	0.05	0.00	0.05	0.00	0.02		0.01	0.01	0.09	11.6	
San Diego	2050	SBUS	0.01	0.02	0.40	0.89	1108.24	0.00	0.00	0.06	0.00	0.02	*0.00*	0.01	0.17	0.11	9.2	
San Diego	2050	SBUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01		0.00	0.00	0.00		1.1
San Diego	2050	SBUS	0.04	2.88	7.78	0.38	1253.25	2.82	0.00	0.06	0.00	0.02		0.00	0.26	0.16	6.3	
San Diego	2050	UBUS	0.01	0.02	0.79	0.03	842.30	0.00	0.00	0.10	0.00	0.03		0.01	0.00	0.10	10.2	
San Diego	2050	UBUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.03		0.00	0.00	0.00		1.7
			0.07	**0.08**	**0.67**	**0.10**	**287.56**	**0.01**	**0.00**	**0.02**	**0.00**	**0.01**	***0.001***	**0.00**	**0.01**	**0.03**	**28.17**	

SANDAG 2025 Regional Plan

Mass Emission Emission Factors

SD County, aggregate speeds

All EMFAC emissions are divided by VMT

EF includes all exhaust, evap, and process

EMFAC OUTPUT			TOTAL EX (for all but PM) and TOTAL (exh + TW + BW for PM) in tons per day												Fuel	Elec
Region	Calendar Year	Vehicle Category	ROG_TOTAL	TOG_TOTAL	CO_TOTEX	NOx_TOTEX	CO2_TOTEX	CH4_TOTEX	PM10_TOTEX	PM10 PMTW + PMBW	PM2.5_TOTEX	PM2.5 PMTW + PMBW	SOx_TOTEX	N2O_TOTEX	gal/day	kwh/day
2050																
San Diego	2050	HHDT	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72	0
San Diego	2050	HHDT	0.2	0.2	2.5	7.1	4778.0	0.0	0.1	0.4	0.1	0.1	0.0	0.8	426,814	0
San Diego	2050	HHDT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0	1,219,463
San Diego	2050	HHDT	0.0	0.1	0.7	0.0	104.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	12,081	0
San Diego	2050	LDA	3.0	3.1	34.2	1.9	12833.2	0.2	0.0	0.8	0.0	0.2	0.1	0.3	1,353,240	0
San Diego	2050	LDA	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	536	0
San Diego	2050	LDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0	2,701,307
San Diego	2050	LDA	0.1	0.1	0.8	0.0	322.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34,031	408,447
San Diego	2050	LDT1	0.3	0.3	2.4	0.1	954.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	100,663	0
San Diego	2050	LDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0
San Diego	2050	LDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	40,224
San Diego	2050	LDT1	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,144	13,645
San Diego	2050	LDT2	1.8	1.9	20.7	1.2	7728.7	0.2	0.0	0.4	0.0	0.1	0.1	0.2	814,986	0
San Diego	2050	LDT2	0.0	0.0	0.0	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,431	0
San Diego	2050	LDT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	279,430
San Diego	2050	LDT2	0.0	0.0	0.2	0.0	95.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,059	119,600
San Diego	2050	LHDT1	0.2	0.2	2.0	0.2	789.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	83,251	0
San Diego	2050	LHDT1	0.1	0.1	0.2	0.2	478.6	0.0	0.0	0.1	0.0	0.0	0.0	0.1	42,751	0
San Diego	2050	LHDT1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0	1,078,839
San Diego	2050	LHDT2	0.0	0.0	0.3	0.0	120.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12,663	0
San Diego	2050	LHDT2	0.0	0.0	0.1	0.1	264.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23,650	0
San Diego	2050	LHDT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	279,736
San Diego	2050	MCY	1.9	2.0	5.5	0.2	90.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9,586	0
San Diego	2050	MDV	1.1	1.2	12.2	0.7	5417.5	0.1	0.0	0.3	0.0	0.1	0.1	0.1	571,265	0
San Diego	2050	MDV	0.0	0.0	0.0	0.0	57.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,155	0
San Diego	2050	MDV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	253,101
San Diego	2050	MDV	0.0	0.0	0.2	0.0	61.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,484	76,228
San Diego	2050	MH	0.0	0.0	0.0	0.0	103.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,946	0
San Diego	2050	MH	0.0	0.0	0.0	0.1	33.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,010	0
San Diego	2050	MHDT	0.0	0.0	0.2	0.0	167.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17,672	0
San Diego	2050	MHDT	0.0	0.0	0.1	0.5	624.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	55,800	0
San Diego	2050	MHDT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	794,275
San Diego	2050	MHDT	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,001	0
San Diego	2050	OBUS	0.0	0.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,060	0
San Diego	2050	OBUS	0.0	0.0	0.0	0.1	77.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,891	0
San Diego	2050	OBUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	25,890
San Diego	2050	OBUS	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	650	0
San Diego	2050	SBUS	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,128	0
San Diego	2050	SBUS	0.0	0.0	0.0	0.0	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,362	0
San Diego	2050	SBUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	39,016
San Diego	2050	SBUS	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72	0
San Diego	2050	UBUS	0.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,425	0
San Diego	2050	UBUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	376,078

Re-entrained Paved Road Dust Emission Factors

453.59 g to lb

Method
https://ww3.arb.ca.gov/ei/areasrc/fullpdf/2021_paved_roads_7_9.pdf
silt loading and EF weighted by VMT by road type

Equation

$$E=[k(sL)^{0.91} \times (W)^{1.02}] \times (1-P/4N)$$

Where

E	paved road dust emission factor (g/mile).
k	particle size multiplier for particle size range. The AP-42 default values are 0.25 g/VMT for PM2.5 and 1.00 g/VMT for PM10.
sL	the roadway-specific silt loading in grams/square meter (g/m2). Default in CalEEMod is 0.1 g/m2.
W	the average weight of vehicles traveling the road (California statewide default =2.4 tons)
P	number of days in a year with at least 0.254 mm (0.01 in) of precipitation. San Diego is 53 days per CARB method.
N	the number of days in the annual averaging period (default=365)

If % values for s and M are real numbers

Pollutant	k	sL	W	P	N
PM10	1	below	2.4	53	365
PM2.5	0.25	below	2.4	53	365

RD link			sL	In grams per mile PM10 EF	PM2.5 EF	EPA ADT Category
1	Freeway	Freeway/Interstate	0.015	0.0515	0.0129	>10k limited access
2	Major	Major and Minor Arterial	0.032	0.1027	0.0257	>10k typical road
3	Collector	Major Collectors	0.032	0.1027	0.0257	>10k typical road
4	Local	Minor Collectors and Loca	0.32	0.8345	0.2086	
5	Aggregate	All	0.1	0.2896	0.0724	

EF Calc by Year

	2022					2035					2050				
	VMT	% of VMT	Weighted	EF g/VMT		VMT	% of	Weighted	EF g/VMT		VMT	% of	Weighted	EF g/VMT	
			sL	PM10	PM2.5			sL	PM10	PM2.5			sL	PM10	PM2.5
Freeway	43,506,874	56%	0.0084	0.0288	0.0072	45,736,729	56%	0.0085	0.0291	0.0073	46,789,111	57%	0.0086	0.0294	0.0073
Major	18,881,584	24%	0.0078	0.0249	0.0062	20,177,448	25%	0.0080	0.0256	0.0064	20,494,007	25%	0.0080	0.0256	0.0064
Collector	5,158,281	7%	0.0021	0.0068	0.0017	4,852,415	6%	0.0019	0.0062	0.0015	4,537,374	6%	0.0018	0.0057	0.0014
Local	10,351,720	13%	0.0425	0.1109	0.0277	10,238,920	13%	0.0404	0.1055	0.0264	10,231,085	12%	0.0399	0.1041	0.0260
Total	77,898,460	100%	0.0608	0.1714	0.0428	81,005,512	100%	0.0588	0.1663	0.0416	82,051,577	100%	0.0582	0.1648	0.0412

	g/vmt		t/vmt	
2022	0.171	0.043	1.88891E-07	4.72228E-08
2035	0.166	0.042	1.83312E-07	4.58279E-08
2050	0.165	0.041	1.81617E-07	4.54043E-08

Road Dust Assignments By Type

RD ID	fc	fc_desc	RD Dust sL	Road Dust EF (g/mi) PM10	PM2.5
1	1	Freeway	0.015	0.0515	0.0129
2	2	Prime Arterial	0.032	0.1027	0.0257
2	3	Major Arterial	0.032	0.1027	0.0257
3	4	Collector	0.032	0.1027	0.0257
4	5	Local Collector	0.32	0.8345	0.2086
4	6	Rural Collector	0.32	0.8345	0.2086
4	7	Local (non-circulation ele	0.32	0.8345	0.2086
1	8	Freeway Connector Ramp	0.015	0.0515	0.0129
1	9	Local Ramp	0.015	0.0515	0.0129
4	10	Zone Connector	0.32	0.8345	0.2086

Passenger Rail Calculations
2022

Fuel Economy by line	Line	gallons per train mile	source
	Pacific Surfliner	2.20	CARB 2017
	Metrolink	3.03	NTD Data
	COASTER	1.92	NTD Data
	Sprinter	0.56	NTD Data
	San Ysidro Extension	2.20	CARB 2017
	ZE	0	none

if ZE, fuel consumption is 0

Emission Factors		0	1	2	3	4	ZE
in grams per gallon	ROG	10.51	10.29	5.69	2.85	0.88	0
	NOX	178.88	139.36	102.96	102.96	20.80	0
	CO	26.62	26.62	26.62	26.62	26.62	0
	PM10	6.66	6.66	3.74	1.66	0.31	0
	PM2.5	6.46	6.46	3.63	1.61	0.30	0
	DPM	6.66	6.66	3.74	1.66	0.31	0
	SOX	1.88	1.88	1.88	1.88	1.88	0

		0	1	2	3	4	ZE
% Loco by Tier by Line	Pacific Surfliner	0%	0%	0%	0%	100%	0%
	Metrolink	0%	0%	33%	0%	67%	0%
	COASTER	0%	0%	0%	0%	100%	0%
	Sprinter	0%	0%	0%	0%	100%	0%
	San Ysidro Extension	0%	0%	0%	0%	0%	0%

Weighted EF by Line		Pacific Surfliner	Metrolink	COASTER	Sprinter	San Ysidro Extension
	ROG	0.88	2.48	0.88	0.88	-
	NOX	20.80	48.19	20.80	20.80	-
	CO	26.62	26.62	26.62	26.62	-
	PM10	0.31	1.46	0.31	0.31	-
	PM2.5	0.30	1.41	0.30	0.30	-
	DPM	0.31	1.46	0.31	0.31	-
	SOX	1.88	1.88	1.88	1.88	-

EF in Grams per Gallon

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.88	20.80	26.62	0.31	0.30	0.31	1.88
Metrolink	2.48	48.19	26.62	1.46	1.41	1.46	1.88
COASTER	0.88	20.80	26.62	0.31	0.30	0.31	1.88
Sprinter	0.88	20.80	26.62	0.31	0.30	0.31	1.88
San Ysidro Extension	-	-	-	-	-	-	-

Fuel Consumption		Train Miles			Train Gallons	
		Daily	Annually	gallon per mile	Daily	Annually
	Pacific Surfliner	1,210	441,650	2.20	2,662	971,630
	Metrolink	228	83,220	3.03	691	252,157
	COASTER	1,328	484,720	1.92	2,550	930,662
	Sprinter	1,716	626,340	0.56	961	350,750
	San Ysidro Extension			2.20		

Passenger Rail Calculations

2022

Emission Calculations

Lbs per day

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	5.142	122.070	156.249	1.831	1.776	1.831	11.033
Metrolink	3.781	73.391	40.550	2.218	2.151	2.218	2.863
COASTER	4.925	116.923	149.661	1.754	1.701	1.754	10.568
Sprinter	1.856	44.066	56.405	0.661	0.641	0.661	3.983
San Ysidro Extension							
Total	**15.703**	**356.449**	**402.865**	**6.463**	**6.270**	**6.463**	**28.447**

Tons per Day

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.0026	0.0610	0.0781	0.0009	0.0009	0.0009	0.0055
Metrolink	0.0019	0.0367	0.0203	0.0011	0.0011	0.0011	0.0014
COASTER	0.0025	0.0585	0.0748	0.0009	0.0009	0.0009	0.0053
Sprinter	0.0009	0.0220	0.0282	0.0003	0.0003	0.0003	0.0020
San Ysidro Extension							
Total	**0.008**	**0.178**	**0.201**	**0.003**	**0.003**	**0.003**	**0.014**

Tons per year

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.94	22.28	28.52	0.33	0.32	0.33	2.01
Metrolink	0.69	13.39	7.40	0.40	0.39	0.40	0.52
COASTER	0.90	21.34	27.31	0.32	0.31	0.32	1.93
Sprinter	0.34	8.04	10.29	0.12	0.12	0.12	0.73
San Ysidro Extension							
Total	**2.866**	**65.052**	**73.522**	**1.180**	**1.144**	**1.180**	**5.192**

Passenger Rail Calculations
2035

Fuel Economy by line	Line	gallons per train mile	source
	Pacific Surfliner	2.20	CARB 2017
	Metrolink	3.03	NTD Data
	COASTER	1.92	NTD Data
	Sprinter	0.56	NTD Data
	San Ysidro Extension	2.20	CARB 2017
	ZE	0	none

if ZE, fuel consumption is 0

Emission Factors		0	1	2	3	4	ZE
in grams per gallon	ROG	10.51	10.29	5.69	2.85	0.88	0
	NOX	178.88	139.36	102.96	102.96	20.80	0
	CO	26.62	26.62	26.62	26.62	26.62	0
	PM10	6.66	6.66	3.74	1.66	0.31	0
	PM2.5	6.46	6.46	3.63	1.61	0.30	0
	DPM	6.66	6.66	3.74	1.66	0.31	0
	SOX	1.88	1.88	1.88	1.88	1.88	0

		0	1	2	3	4	ZE
% Loco by Tier by Line	Pacific Surfliner	0%	0%	0%	0%	100%	0%
	Metrolink	0%	0%	0%	0%	100%	0%
	COASTER	0%	0%	0%	0%	100%	0%
	Sprinter	0%	0%	0%	0%	100%	0%
	San Ysidro Extension	0%	0%	0%	0%	0%	0%

Weighted EF by Line		Pacific Surfliner	Metrolink	COASTER	Sprinter	San Ysidro Extension
	ROG	0.88	0.88	0.88	0.88	-
	NOX	20.80	20.80	20.80	20.80	-
	CO	26.62	26.62	26.62	26.62	-
	PM10	0.31	0.31	0.31	0.31	-
	PM2.5	0.30	0.30	0.30	0.30	-
	DPM	0.31	0.31	0.31	0.31	-
	SOX	1.88	1.88	1.88	1.88	-

EF in Grams per Gallon

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.88	20.80	26.62	0.31	0.30	0.31	1.88
Metrolink	0.88	20.80	26.62	0.31	0.30	0.31	1.88
COASTER	0.88	20.80	26.62	0.31	0.30	0.31	1.88
Sprinter	0.88	20.80	26.62	0.31	0.30	0.31	1.88
San Ysidro Extension	-	-	-	-	-	-	-

Fuel Consumption		Train Miles		gallon per	Train Gallons	
		Daily	Annually	mile	Daily	Annually
	Pacific Surfliner	2,420	883,300	2.20	5,324	1,943,260
	Metrolink	760	277,400	3.03	2,303	840,522
	COASTER	1,660	605,900	1.92	3,187	1,163,328
	Sprinter	3,520	1,284,800	0.56	1,971	719,488
	San Ysidro Extension			2.20		

Passenger Rail Calculations

2035

Emission Calculations

Lbs per day

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	10.283	244.139	312.498	3.662	3.552	3.662	22.066
Metrolink	4.448	105.598	135.166	1.584	1.536	1.584	9.544
COASTER	6.156	146.153	187.076	2.192	2.127	2.192	13.210
Sprinter	3.807	90.392	115.702	1.356	1.315	1.356	8.170
San Ysidro Extension							
Total	**24.694**	**586.283**	**750.442**	**8.794**	**8.530**	**8.794**	**52.991**

Tons per Day

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.005	0.122	0.156	0.002	0.002	0.002	0.011
Metrolink	0.002	0.053	0.068	0.001	0.001	0.001	0.005
COASTER	0.003	0.073	0.094	0.001	0.001	0.001	0.007
Sprinter	0.002	0.045	0.058	0.001	0.001	0.001	0.004
San Ysidro Extension							
Total	**0.012**	**0.293**	**0.375**	**0.004**	**0.004**	**0.004**	**0.026**

Tons per year

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	1.88	44.56	57.03	0.67	0.65	0.67	4.03
Metrolink	0.81	19.27	24.67	0.29	0.28	0.29	1.74
COASTER	1.12	26.67	34.14	0.40	0.39	0.40	2.41
Sprinter	0.69	16.50	21.12	0.25	0.24	0.25	1.49
San Ysidro Extension							
Total	**4.507**	**106.996**	**136.955**	**1.605**	**1.557**	**1.605**	**9.671**

Passenger Rail Calculations
2050

Fuel Economy by line	Line	gallons per train mile	source
	Pacific Surfliner	2.20	CARB 2017
	Metrolink	3.03	NTD Data
	COASTER	1.92	NTD Data
	Sprinter	0.56	NTD Data
	San Ysidro Extension	2.20	CARB 2017
	ZE	0	none

if ZE, fuel consumption is 0

Emission Factors		0	1	2	3	4	ZE
in grams per gallon	ROG	10.51	10.29	5.69	2.85	0.88	0
	NOX	178.88	139.36	102.96	102.96	20.80	0
	CO	26.62	26.62	26.62	26.62	26.62	0
	PM10	6.66	6.66	3.74	1.66	0.31	0
	PM2.5	6.46	6.46	3.63	1.61	0.30	0
	DPM	6.66	6.66	3.74	1.66	0.31	0
	SOX	1.88	1.88	1.88	1.88	1.88	0

		0	1	2	3	4	ZE
% Loco by Tier by Line	Pacific Surfliner	0%	0%	0%	0%	0%	100%
	Metrolink	0%	0%	0%	0%	0%	100%
	COASTER	0%	0%	0%	0%	0%	100%
	Sprinter	0%	0%	0%	0%	0%	100%
	San Ysidro Extension	0%	0%	0%	0%	0%	100%

Weighted EF by Line		Pacific Surfliner	Metrolink	COASTER	Sprinter	San Ysidro Extension
	ROG	0.00	0.00	0.00	0.00	0.00
	NOX	0.00	0.00	0.00	0.00	0.00
	CO	0.00	0.00	0.00	0.00	0.00
	PM10	0.00	0.00	0.00	0.00	0.00
	PM2.5	0.00	0.00	0.00	0.00	0.00
	DPM	0.00	0.00	0.00	0.00	0.00
	SOX	0.00	0.00	0.00	0.00	0.00

EF in Grams per Gallon

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metrolink	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COASTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sprinter	0.00	0.00	0.00	0.00	0.00	0.00	0.00
San Ysidro Extension	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Fuel Consumption		Train Miles		gallon per	Train Gallons	
		Daily	Annually	mile	Daily	Annually
	Pacific Surfliner	4,840	1,766,600	0.00	0	0
	Metrolink	760	277,400	0.00	0	0
	COASTER	4,980	1,817,700	0.00	0	0
	Sprinter	3,520	1,284,800	0.00	0	0
	San Ysidro Extension	616	224840	0.00	0	0

Passenger Rail Calculations

2050

Emission Calculations

Lbs per day

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Metrolink	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COASTER	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sprinter	0.000	0.000	0.000	0.000	0.000	0.000	0.000
San Ysidro Extension	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Tons per Day

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metrolink	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COASTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sprinter	0.00	0.00	0.00	0.00	0.00	0.00	0.00
San Ysidro Extension	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Tons per year

	ROG	NOX	CO	PM10	PM2.5	DPM	SOX
Pacific Surfliner	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metrolink	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COASTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sprinter	0.00	0.00	0.00	0.00	0.00	0.00	0.00
San Ysidro Extension	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Passenger Rail Data Request or the 2025 Regional Plan EIR

= Data not available

2022/Existing													
	Train Trips		Train Miles		# of	Typical Engine	Tier Mix (either % of total or actual # of engines)						
Line	Daily	Annually	Daily	Annually	engine/locomotive	horsepower	0	1	2	3	4	ZE	Total Engines
Pacific Surfliner	20	7,300	1,210	441,650	1	4,400					14		14
Metrolink	12	4,380	228	83,220	1	3000, 3600, 4700			20		40		60
COASTER	32	11,680	1,328	484,720	1	4,400					9		9
Sprinter	78	28,470	1,716	626,340	1	880					12		12
	142	51830											

2035													
	Train Trips		Train Miles		# of	Typical Engine	Tier Mix (either % of total or actual # of engines)						
Line	Daily	Annually	Daily	Annually	engine/locomotive	horsepower	0	1	2	3	4	ZE	Total Engines
Pacific Surfliner	40	14,600	2,420	883,300	1	4,400					14		14
Metrolink	40	14,600	760	277,400	1	3000, 3600, 4700					60		60
COASTER	40	14,600	1,660	605,900	1	4,400					9		9
Sprinter	160	58,400	3,520	1,284,800	1	880					12		12
	280	102200											
	97%	97%											

2050													
	Train Trips		Train Miles		# of	Typical Engine	Tier Mix (either % of total or actual # of engines)						
Line	Daily	Annually	Daily	Annually	engine/locomotive	horsepower	0	1	2	3	4	ZE	Total Engines
Pacific Surfliner	80	29,200	4,840	1,766,600	1	4,400						14	14
Metrolink	40	14,600	760	277,400	1	4,700						60	60
COASTER	120	43,800	4,980	1,817,700	1	4,400						9	9
Sprinter	160	58,400	3,520	1,284,800	1	880						12	12
San Ysidro Extension	40	14,600	616	224,840	1	4,400						14	14
	360	131400											
	154%	154%											
ZE = Zero Emissions	2.535211	2.535211268											

Rail Emission Factors

Line-Haul Emission Factors (g/bhp-hr)

	PM_{10}	HC	NO_x	CO	SO2	CO2	VOC	PM2.5	DPM
UNCONTROLLED	0.32	0.48	13.00	1.28	0.09	491.20	0.51	0.31	0.32
TIER 0	0.32	0.48	8.60	1.28	0.09	491.20	0.51	0.31	0.32
TIER 0+	0.20	0.30	7.20	1.28	0.09	491.20	0.32	0.19	0.20
TIER 1	0.32	0.47	6.70	1.28	0.09	491.20	0.49	0.31	0.32
TIER 1+	0.20	0.29	6.70	1.28	0.09	491.20	0.31	0.19	0.20
TIER2	0.18	0.26	4.95	1.28	0.09	491.20	0.27	0.17	0.18
TIER 2+ & TIER 3	0.08	0.13	4.95	1.28	0.09	491.20	0.14	0.08	0.08
TIER 4	0.015	0.04	1.00	1.28	0.09	491.20	0.04	0.01	0.02

Conversion Factors (bhp-hr/gal)

Locomotive Application	Conversion Factor (bhp-hr/gal)
Large Line-Haul and Passenger	20.8
Small Line-Haul	18.2
Switching	15.2

Line-Haul Emission Factors (g/gallon)

	PM_{10}	HC	NO_x	CO	Sox	CO2	ROG	PM2.5	DPM
UNCONTROLLED	6.66	9.98	270.40	26.62	1.88	10217	10.51	6.46	6.66
TIER 0	6.66	9.98	178.88	26.62	1.88	10217	10.51	6.46	6.66
TIER 0+	4.16	6.24	149.76	26.62	1.88	10217	6.57	4.04	4.16
TIER 1	6.66	9.78	139.36	26.62	1.88	10217	10.29	6.46	6.66
TIER 1+	4.16	6.03	139.36	26.62	1.88	10217	6.35	4.04	4.16
TIER2	3.74	5.41	102.96	26.62	1.88	10217	5.69	3.63	3.74
TIER 2+ & TIER 3	1.66	2.70	102.96	26.62	1.88	10217	2.85	1.61	1.66
TIER 4	0.31	0.83	20.80	26.62	1.88	10217	0.88	0.30	0.31
ZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

All EFs and conversion factors from EPA 2009 Technical Highlights:
https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF

PM2.5 of PM10	97%
HC to TOG/VOC	1.053
grams to lbs	0.002205
grams to tons	1.1E-06

Fuel Consumption Metrics for Passenger Rail Lines in SD

Data pulled from DOT NTD Database.

2022-2023 data available from for all but Amtrak:

https://data.transportation.gov/Public-Transit/NTD-Annual-Data-View-Fuel-and-Energy-by-Agency-/wwem-ata9/about_data

Amrak does not separate Surfliner from other lines in the Country. Vastly different routes and engines. Thus, using CARB data from Amtrak from the 2017 Passenger Rail Emissions Model:

https://ww2.arb.ca.gov/sites/default/files/classic/msei/ordiesel/locopassenger2017ei.docx

Agency	City	State	NTD ID	Organization Type	Reporter Type	Report Year	UACE Code	UZA Name	Primary UZA Population	Agency VOMS	Mode	Mode Name	TOS	Mode VOMS	Diesel (gal)	Diesel (gal) Questionable	Other Fuel (gal/gal equivalent)	Diesel (miles)	Diesel (mpg)	Other Fuel (mpg)
North County Transit District	Oceanside	CA	90030	Independent Public Agency or Auth	Full Report	2023	78661	San Diego,	3070300	189	CR	Commuter Rail	DO	30	838898			433301	0.52	
North County Transit District	Oceanside	CA	90030	Independent Public Agency or Auth	Full Report	2023	78661	San Diego,	3070300	189	YR	Hybrid Rail	DO	8	350923			632459	1.8	
Southern California Regional Rail Authority	Los Angeles	CA	90151	Independent Public Agency or Auth	Full Report	2023	51445	Los Angele:	12237376	195	CR	Commuter Rail	PT	195	139814			2638483	0.33	
North County Transit District	Oceanside	CA	90030	Independent Public Agency or Auth	Full Report	2022	78661	San Diego,	3070300	231	CR	Commuter Rail	DO	30	12892					
North County Transit District	Oceanside	CA	90030	Independent Public Agency or Auth	Full Report	2022	78661	San Diego,	3070300	231	CR	Commuter Rail	PT	32	842272			2022 data for Diesel		
North County Transit District	Oceanside	CA	90030	Independent Public Agency or Auth	Full Report	2022	78661	San Diego,	3070300	231	YR	Hybrid Rail	PT	10	420373			Miles and MPG are		
North County Transit District	Oceanside	CA	90030	Independent Public Agency or Auth	Full Report	2022	78661	San Diego,	3070300	231	YR	Hybrid Rail	DO	8	5076			blank for each line;		
Southern California Regional Rail Authority	Los Angeles	CA	90151	Independent Public Agency or Auth	Full Report	2022	51445	Los Angele:	12237376	195	CR	Commuter Rail	PT	195	3255144			using 2023 instead		

gallons per mile (1/mpg)	
1.92	Coaster
0.56	Sprinter
3.03	Metrolink
2.2	all others, including amtrak

Freight Rail Line Haul
Fuel Consumption and Emission Calculations

conversions

g to lb	0.002204634
lb to ton	0.0005
days/yr	365

		Ton Miles			Fuel Consumption	
Fuel Consumption		Destination	Origin	Total	Ton miles per gallon	Gallons
	2022	672,700,000	672,688,600	1,345,388,600	500	2,690,777
	2035	1,678,600,000	1,678,551,500	3,357,151,500	500	6,714,303
	2050	2,149,200,000	2,149,151,000	4,298,351,000	500	8,596,702

Emission Factors		ROG	NOX	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N20	value
grams per gallon	2022	6.8	109.4	26.6	4.3	4.2	4.3	1.9	10217.3	0.8	0.3	BNSF 2022
	2035	3.1	90.9	26.6	1.9	1.8	1.9	1.9	10217.3	0.8	0.3	CARB statewide
	2050	1.1	31.2	26.6	0.5	0.5	0.5	1.9	10217.3	0.8	0.3	CARB statewide

Emission Calculations		ROG	NOX	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N20
lbs/year	2022	40,101.5	649,027.9	157,938.3	25,665.0	24,895.0	25,665.0	11,105.0	60,610,689	4,689	1,604
	2035	45,909.2	1,345,070.4	394,103.9	27,487.9	26,663.3	27,487.9	27,710.4	151,242,003	11,700	4,003
	2050	21,699.9	590,727.1	504,593.6	9,421.6	9,138.9	9,421.6	35,479.2	193,643,693	14,980	5,125
tons per year	2022	20.1	324.5	79.0	12.8	12.4	12.8	5.6	30,305	2.3	0.8
	2035	23.0	672.5	197.1	13.7	13.3	13.7	13.9	75,621	5.8	2.0
	2050	10.8	295.4	252.3	4.7	4.6	4.7	17.7	96,822	7.5	2.6
lbs/avg day	2022	109.9	1,778.2	432.7	70.3	68.2	70.3	30.4	166,057	12.8	4.4
	2035	125.8	3,685.1	1,079.7	75.3	73.1	75.3	75.9	414,362	32.1	11.0
	2050	59.5	1,618.4	1,382.4	25.8	25.0	25.8	97.2	530,531	41.0	14.0
ton/avg day	2022	0.055	0.9	0.2	0.0	0.0	0.0352	0.0	83	0.01	0.00
	2035	0.063	1.8	0.5	0.0	0.0	0.0377	0.0	207	0.02	0.01
	2050	0.030	0.8	0.7	0.0	0.0	0.0129	0.0	265	0.02	0.01

500 tons mile per gallon metric,
https://www.bnsf.com/bnsf-resources/pdf/about-bnsf/fact_sheet.pdf

CARB Locomotive inventory for future year fleet % for Freight Line Haul
https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation
https://ww2.arb.ca.gov/sites/default/files/2024-01/2021_line_haul_locomotive_emission_inventory_summaries%20web%20FINAL%202024V.xlsx

BNSF Facts

Length of network:	**32,500**
States in network:	**28**
Canadian provinces:	**3**
Employees:	**~37,000**
Headquarters:	**Fort Worth, TX**
Ports served:	**40+**
Intermodal facilities:	**27**
Average trains per day:	**1,200**
Locomotives:	**~7,500**
Capital investment (2023):	**$3.92 billion**
Bridges:	**13,000+**
Tunnels:	**99**
Grade crossings:	**29,000+**
Packages shipped during holiday season:	**85 million**
Carloads shipped in 2023:	**9 million**
Distance BNSF hauls 1 ton of freight on 1 gallon of diesel fuel:	**~500 miles**

FAF for rail tonnage

Data pulled from Freight Analysis Framework 5, January 11, 2025

Options Selected: Total Flows; 2017-2022, 2035, 2050; tons, Domestic Origin and Destination of San Diego (ran seperately), Mode of rail

Output is million ton miles

Destination: For domestic freight movements, the FAF region or state where a freight movement ends

Origin: For domestic freight movement, the FAF region or state where a freight movement begins

Summary of Rail Ton-Miles

all in million ton miles

	origin	destination	total
2022	672.70	672.6886	1345.4
2035	1678.60	1678.5515	3357.2
2050	2149.20	2149.151	4298.4

FAF output

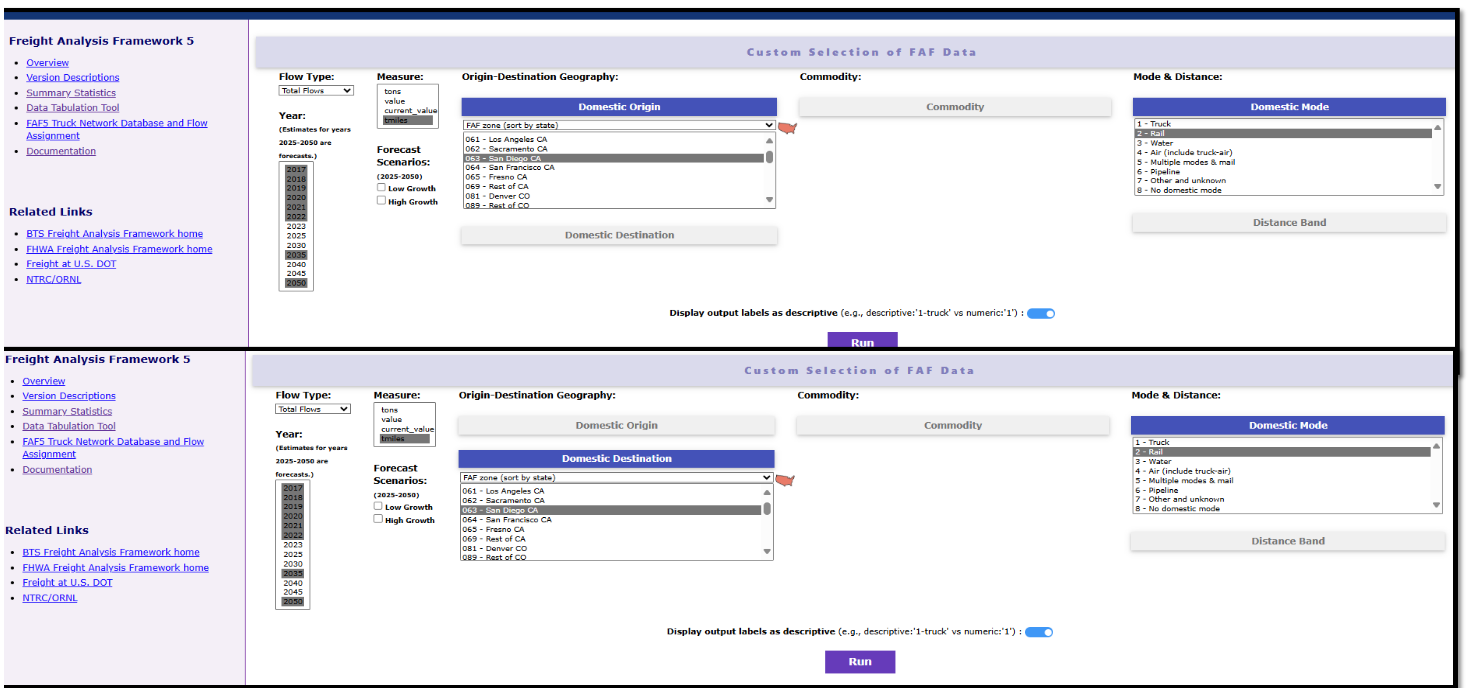
	dms_orig	dms_mode	million ton-miles in 2017	million ton-miles in 2018	million ton-miles in 2019	million ton-miles in 2020	million ton-miles in 2021	million ton-miles in 2022	million ton-miles in 2035	million ton-miles in 2050
Destination SD ->	063-San Diego CA	2-Rail	1069.2644	833.5007	986.5892	729.805	622.483	672.6886	1678.5515	2149.151

	dms_orig	dms_mode	million ton-miles in 2017	million ton-miles in 2018	million ton-miles in 2019	million ton-miles in 2020	million ton-miles in 2021	million ton-miles in 2022	million ton-miles in 2035	million ton-miles in 2050
Origin SD ->	063-San Diego CA	2-Rail	1,069.30	833.5	986.6	729.8	622.5	672.70	1678.60	2149.20

links

https://faf.ornl.gov/faf5/Documentation.aspx

https://faf.ornl.gov/faf5/dtt_total.aspx



BNSF Emission Factor Calculation

2022 only; future years based on CARB Locomotive Inventory
Info from BNSF MOU for 2022, downloaded 12/19//2024, approved by CARB 11/9/23
CARB Site here:
https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements
EF submission only for NOX. Math applied to esitmates other EFs based on EPA Emission Factors for PM, CO, HC, and GHGs from the 2009 Technical Highlights and GHG Emission Facotor Hub
https://www.epa.gov/system/files/documents/2024-02/ghg-emission-factors-hub-2024.pdf
https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100500B.pdf

EF Summary

		ROG	NOX	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N20
2022	g/hp-hr	0.325	5.26	1.280	0.208	0.202	0.208	0.090	491.215	0.038	0.013
	g/gallon	6.760	109.408	26.624	4.326	4.197	4.326	1.872	10217.272	0.790	0.270

Step 1) Summarize BNSF Tier and MWH info for non-NOX EFs

2022 BNSF South Coast Fleet Average Form F-A-1 Summary

	(1) Line No.	(2) Count of Locomotives	Sum of WMTR MWHR	(3) CL (g/bhphr)	(4) Average Adj. to CL (g/bhphr)	(5) Average EL (g/bhphr)	(6) Average MWhr per Locomotive	(7) Total Weighted MWhr	EPA Tier*	% MW-hrs by Tier	% locos by Tier
4	1	1	0.10	1.10	0.00	1.10	0.10	0.11	4	5.3%	5%
4	2	268	10,968.37	1.20	0.00	1.2	40.93	13,162.04			
	Subtotal	**269**	**10,968.47**					**13,162.16**			
3	3	188	7,432.74	4.60	0.00	4.6	39.54	34,190.62	3	22.0%	23%
3	4	8	6.66	4.90	0.00	4.9	0.83	32.65			
3	5	680	22,386.43	5.30	0.00	5.3	32.92	118,648.06			
3	6	1	1.66	5.40	0.00	5.4	1.66	8.98			
3	7	42	960.06	5.50	0.00	5.5	14.42	5,280.30			
3	8	295	14,656.72	1.20	0.00	1.2	49.68	17,588.07			
3	9	2	0.51	5.00	0.00	5	0.25	2.54			
3	10	2	1.69	5.40	0.00	5.4	0.84	9.12			
3	11	2	3.23	5.50	0.00	5.5	1.61	17.76			
	Subtotal	**1,220**	**45,449.70**					**175,778.11**			
2	12	2	48.13	4.60	0.00	4.6	24.07	221.41	2	30.6%	30%
2	13	2	16.89	4.90	0.00	4.9	8.45	82.77			
2	14	113	5,444.48	5.30	0.00	5.3	48.18	28,855.76			
2	15	14	213.54	5.50	0.00	5.5	12.11	1,174.45			
2	16	4	152.01	4.00	0.00	4	38.00	608.03			
2	17	3	85.73	4.30	0.00	4.3	28.58	368.64			
2	18	1	9.79	4.40	0.00	4.4	9.79	43.07			
2	19	1	58.64	4.50	0.00	4.5	58.64	263.87			
2	20	879	37,016.27	4.60	0.00	4.6	42.11	170,274.83			
2	21	10	57.15	4.70	0.00	4.7	5.72	268.61			
2	22	1	232.29	4.80	0.00	4.8	232.29	1,114.99			
2	23	1	72.83	4.90	0.00	4.9	72.83	356.85			
2	24	41	597.45	5.20	0.00	5.2	14.57	3,106.73			
2	25	416	17,402.84	5.30	0.00	5.3	41.83	92,235.06			
2	26	72	1,291.33	5.40	0.00	5.4	17.94	6,973.19			
2	27	28	455.07	5.50	0.00	5.5	16.25	2,502.88			
	Subtotal	**1,588**	**63,154.43**					**308,451.15**			
1	28	2	52.83	6.70	0.00	6.7	26.42	353.96	1	39.6%	26%
1	29	21	859.27	7.40	0.00	7.4	40.92	6,358.60			
1	30	4	143.80	5.51	0.00	5.51	35.95	792.35			
1	31	38	2,176.16	5.80	0.00	5.8	57.27	12,621.74			
1	32	746	47,537.80	6.00	0.00	6	63.72	285,226.80			
1	33	1	53.06	6.10	0.00	6.1	53.06	323.67			
1	34	4	199.86	6.20	0.00	6.2	49.97	1,239.14			
1	35	3	206.52	6.30	0.00	6.3	68.84	1,301.05			
1	36	7	5.42	6.50	0.00	6.5	0.77	35.26			
1	37	3	160.24	6.70	0.00	6.7	53.41	1,073.63			
1	38	8	379.41	6.80	0.00	6.8	47.43	2,579.96			
1	39	35	1,836.43	6.90	0.00	6.9	52.47	12,671.34			
1	40	16	437.72	7.20	0.00	7.2	27.36	3,151.59			
1	41	3	125.81	7.30	0.00	7.3	41.94	918.39			
1	42	388	21,895.86	7.40	0.00	7.4	56.43	162,029.35			
1	43	1	0.52	8.40	0.00	8.4	0.52	4.36			
1	44	1	4.84	9.60	0.00	9.6	4.84	46.49			

1	45	1	43.91	10.80	0.00	10.8	43.91	474.26			
1	46	21	1,557.53	6.00	0.00	6	74.17	9,345.17			
1	47	1	41.44	6.20	0.00	6.2	41.44	256.90			
1	48	1	0.61	6.50	0.00	6.5	0.61	3.98			
1	49	3	109.33	6.70	0.00	6.7	36.44	732.50			
1	50	70	3,959.93	6.90	0.00	6.9	56.57	27,323.51			
1	51	2	63.51	7.40	0.00	7.4	31.75	469.95			
1	52	2	1.49	9.00	0.00	9	0.74	13.41			
	Subtotal	**1,382**	**81,853.29**					**529,347.32**			
0	53	3	68.01	7.80	0.00	7.8	22.67	530.48	0	1.8%	1%
0	54	1	0.58	9.00	0.00	9	0.58	5.24			
0	55	11	119.92	9.30	0.00	9.3	10.90	1,115.23			
0	56	3	75.75	9.50	0.00	9.5	25.25	719.63			
0	57	16	759.63	11.10	0.00	11.1	47.48	8,431.90			
0	58	3	148.77	7.60	0.00	7.6	49.59	1,130.69			
0	59	4	1.62	8.00	0.00	8	0.40	12.92			
0	60	14	807.25	11.10	0.00	11.1	57.66	8,960.42			
0	61	18	1,810.80	11.40	0.00	11.4	100.60	20,643.12			
	Subtotal	**73**	**3,792.33**					**41,549.64**			
NR	62	812	1,335.77	26	0.00	26	52.31	17,365.00	N	0.6%	15%
	Subtotal	**812**	**1,335.77**	**26**	**0.00**	**26**	**52.31**	**17,365.00**			
	Total	**5,344**	**206,553.99**					**1,085,653.37**			
							Fleet Average	**5.26**			

Step 2) apply other EFs

EPA Efs

Emission Factors (grams per bhp-hr) for weighting

	NR	0	1	2	3	4
PM	0.32	0.32	0.32	0.18	0.08	0.015
HC	0.48	0.48	0.47	0.26	0.13	0.04
CO	1.28	1.28	1.28	1.28	1.28	1.28

			rates (from EPA standards)		
Tier	**Megawatt-Hours [MWhrs]**	**% MWhrs by Tier Level**	**PM**	**HC**	**CO**
NR	1335.77	0.65%	0.32	0.48	1.28
0	3792.33	1.84%	0.32	0.48	1.28
1	81853.3	39.63%	0.32	0.47	1.28
2	63154.44	30.58%	0.18	0.26	1.28
3	45449.7	22.00%	0.08	0.13	1.28
4	10968.47	5.31%	0.015	0.04	1.28
	206554.01	100%	0.21	0.31	1.28
	0.02		*2*	*3*	*4*

conversions

HC to ROG	*1.053*	EPA 40 CFR part 1033 Technical Highlights
PM10 to PM2.5	*0.97*	EPA 40 CFR part 1033 Technical Highlights
hp to gallons multipl	*20.8*	EPA 40 CFR part 1033 Technical Highlights

CO2 and SO2 from EPA Locomotives (2009)

	g/gall	g/hp-hr
CO2	10,217	491.215
SO2	1.88	0.090

	fuel density				EF in grams/gallon
CO2	3200	3.67	0.87		10217
SO2	3200	0.978	2	0.0003	1.88

CH4 and N2O, from EPA EF hub

	g/gall	g/hp-hr	
CH4	0.8	0.038	Table 5
N20	0.26	0.013	Table 5

https://www.epa.gov/system/files/documents/2024-02/ghg-emission-factors-hub-2024.pdf
https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100500B.pdf

SO_2 (g/gal) = (fuel density) × (conversion factor) × (64 g SO_2/32 g S) × (S content of fuel)

Consider the example where the density of diesel fuel is 3200 g/gal, the fraction of fuel sulfur converted to SO_2 is 97.8 percent, and the sulfur content of the fuel is 300 ppm.

SO_2 (g/gal) = (3200) × (0.978) × (2.00) × (300 x 10^{-6}) = 1.88 g/gal

CO_2 (g/gal) = (fuel density) × (44 g CO_2/12 g C) × (C content of fuel)

Consider the example where the density of diesel fuel is 3200 g/gal and the carbon content of the fuel is 87 percent by mass.

CO_2 (g/gal) = (3200) × (3.67) × (0.87) = 10,217 g/gal

CARB Data for estimating Future Year Fleet mix and then g/gallon rate

Main folder:

https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation

See the Tier Distribution Comparison tab of:

https://ww2.arb.ca.gov/sites/default/files/2024-01/2021_line_haul_locomotive_emission_inventory_summaries%20web%20FINAL%202024V.xlsx

Not using CARB's 2022 EF here.

CY	Pre-Tier	Tier 0	Tier 0+	Tier 1	Tier 1+	Tier 2	Tier 2+	Tier 3	Tier 4
2022	0%	4%	5%	0%	29%	4%	31%	20%	6%
2035	0%	0%	0%	0%	20%	0%	37%	19%	24%
2050	0%	0%	0%	0%	1%	0%	1%	10%	88%

	Pre-Tier	Tier 0	Tier 0+	Tier 1	Tier 1+	Tier 2	Tier 2+	Tier 3	Tier 4
PM	0.32	0.32	0.2	0.32	0.2	0.18	0.08	0.08	0.015
HC	0.48	0.48	0.3	0.47	0.29	0.26	0.13	0.13	0.04
CO	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28
NOx	13	8.6	7.2	6.7	6.7	4.95	4.95	4.95	1

g/hphr	ROG	NOX	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N20	
2022	0.211	5.475	1.280	0.131	0.128	0.131	0.090	491	0.038	0.013	statewide; more than just BN
2035	0.149	4.369	1.280	0.089	0.087	0.089	0.090	491	0.038	0.013	
2050	0.055	1.498	1.280	0.024	0.023	0.024	0.090	491	0.038	0.013	
2022 BN	*0.325*	*5.260*	*1.280*	*0.208*	*0.202*	*0.208*	*0.090*	*491*	*0.038*	*0.013*	*for comparison*

g/gallon	ROG	NOX	CO	PM10	PM2.5	DPM	SOX	CO2	CH4	N20	
2022	4.383	113.885	26.624	2.735	2.653	2.735	1.872	10217.272	0.790	0.270	
2035	3.101	90.867	26.624	1.857	1.801	1.857	1.872	10217.272	0.790	0.270	
2050	1.145	31.169	26.624	0.497	0.482	0.497	1.872	10217.272	0.790	0.270	
2022 BN	*6.760*	*109.408*	*26.624*	*4.326*	*4.197*	*4.326*	*1.872*	*10217.272*	*0.790*	*0.270*	*for comparison*

HC to ROG	1.053	EPA 2009
PM10 to PM2.5	0.97	EPA 2009
hp to gallons multiplier	20.8	EPA 2009

Train Emissions from CEPAM
CEPAM Emissions used for Short line and Switching Only
Passenger Rail and Line Haul calculated seperately based on SANDAG data
All emissions are presented in CEPAM in Tons per Day

lb per ton	2000
days per ye	365
DPM = PM10	

		TPD							Lbs per Day							Tons per Year						
Year	Source	ROG	NOX	COT	PM10	PM2_5	DPM	SOX	ROG	NOX	COT	PM10	PM2_5	DPM	SOX	ROG	NOX	COT	PM10	PM2_5	DPM	SOX
2022	822-LOCOMOTIVES - SWITCHING	0.002661	0.062373	0.010676	0.001337	0.00123	0.001337	0.000036	5.322	124.746	21.352	2.674	2.46	2.674	0.072	0.971265	22.76615	3.89674	0.488005	0.44895	0.488005	0.01314
2022	823-LOCOMOTIVES - SHORT LINE	0.001593	0.045275	0.005524	0.000763	0.000702	0.000763	0.00002452	3.1865	90.5497	11.04738	1.52534	1.40332	1.52534	0.04904	0.581536	16.52532	2.016147	0.278375	0.256106	0.278375	0.00895
2035	822-LOCOMOTIVES - SWITCHING	0.003283	0.077971	0.014149	0.001656	0.001523	0.001656	0.000048	6.566	155.942	28.298	3.312	3.046	3.312	0.096	1.198295	28.45942	5.164385	0.60444	0.555895	0.60444	0.01752
2035	823-LOCOMOTIVES - SHORT LINE	0.001614	0.045275	0.005524	0.000763	0.000702	0.000763	0.00002452	3.22706	90.5497	11.04738	1.52534	1.40332	1.52534	0.04904	0.588938	16.52532	2.016147	0.278375	0.256106	0.278375	0.00895
2050	822-LOCOMOTIVES - SWITCHING	0.004644	0.107909	0.019581	0.002292	0.002108	0.002292	0.000066	9.288	215.818	39.162	4.584	4.216	4.584	0.132	1.69506	39.38679	7.147065	0.83658	0.76942	0.83658	0.02409
2050	823-LOCOMOTIVES - SHORT LINE	0.001621	0.045275	0.005524	0.000763	0.000702	0.000763	0.00002452	3.2422	90.5497	11.04738	1.52534	1.40332	1.52534	0.04904	0.591702	16.52532	2.016147	0.278375	0.256106	0.278375	0.00895

Attachment 3

Dispersion Modeling and Health Risk Calculation Sheets

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2022	5	AUTO	Gasoline	6.56E-03	7.59E-03	2.30E-03	1.90E-03	9.69E-03	8.91E-03	2.13E-01
2022	10	AUTO	Gasoline	8.10E-03	7.59E-03	2.83E-03	1.90E-03	6.12E-03	5.63E-03	1.50E-01
2022	15	AUTO	Gasoline	9.63E-03	7.59E-03	3.37E-03	1.90E-03	4.08E-03	3.75E-03	1.13E-01
2022	20	AUTO	Gasoline	1.12E-02	7.59E-03	3.91E-03	1.90E-03	2.87E-03	2.64E-03	9.13E-02
2022	25	AUTO	Gasoline	1.21E-02	7.59E-03	4.25E-03	1.90E-03	2.12E-03	1.95E-03	7.77E-02
2022	30	AUTO	Gasoline	1.26E-02	7.59E-03	4.40E-03	1.90E-03	1.66E-03	1.53E-03	6.91E-02
2022	35	AUTO	Gasoline	1.30E-02	7.59E-03	4.54E-03	1.90E-03	1.37E-03	1.26E-03	6.37E-02
2022	40	AUTO	Gasoline	1.17E-02	7.59E-03	4.10E-03	1.90E-03	1.19E-03	1.09E-03	6.03E-02
2022	45	AUTO	Gasoline	8.77E-03	7.59E-03	3.07E-03	1.90E-03	1.09E-03	9.98E-04	5.85E-02
2022	50	AUTO	Gasoline	5.82E-03	7.59E-03	2.04E-03	1.90E-03	1.05E-03	9.63E-04	5.78E-02
2022	55	AUTO	Gasoline	3.91E-03	7.59E-03	1.37E-03	1.90E-03	1.06E-03	9.79E-04	5.82E-02
2022	60	AUTO	Gasoline	3.04E-03	7.59E-03	1.06E-03	1.90E-03	1.14E-03	1.05E-03	5.97E-02
2022	65	AUTO	Gasoline	2.16E-03	7.59E-03	7.57E-04	1.90E-03	1.29E-03	1.19E-03	6.25E-02
2022	70	AUTO	Gasoline	2.16E-03	7.59E-03	7.57E-04	1.90E-03	1.40E-03	1.29E-03	6.46E-02
2022	75	AUTO	Gasoline	2.16E-03	7.59E-03	7.57E-04	1.90E-03	1.40E-03	1.29E-03	6.46E-02
2022	5	AUTO	Diesel	5.68E-05	3.82E-05	1.99E-05	9.56E-06	3.48E-04	3.33E-04	1.80E-03
2022	10	AUTO	Diesel	6.27E-05	3.82E-05	2.19E-05	9.56E-06	2.73E-04	2.62E-04	1.33E-03
2022	15	AUTO	Diesel	6.86E-05	3.82E-05	2.40E-05	9.56E-06	2.02E-04	1.94E-04	7.03E-04
2022	20	AUTO	Diesel	7.41E-05	3.82E-05	2.59E-05	9.56E-06	1.53E-04	1.46E-04	3.33E-04
2022	25	AUTO	Diesel	7.24E-05	3.82E-05	2.54E-05	9.56E-06	1.26E-04	1.20E-04	2.28E-04
2022	30	AUTO	Diesel	7.17E-05	3.82E-05	2.51E-05	9.56E-06	1.09E-04	1.04E-04	1.82E-04
2022	35	AUTO	Diesel	7.23E-05	3.82E-05	2.53E-05	9.56E-06	9.87E-05	9.44E-05	1.52E-04
2022	40	AUTO	Diesel	6.75E-05	3.82E-05	2.36E-05	9.56E-06	9.31E-05	8.91E-05	1.31E-04
2022	45	AUTO	Diesel	5.57E-05	3.82E-05	1.95E-05	9.56E-06	9.18E-05	8.78E-05	1.18E-04
2022	50	AUTO	Diesel	4.40E-05	3.82E-05	1.54E-05	9.56E-06	9.44E-05	9.04E-05	1.11E-04
2022	55	AUTO	Diesel	3.64E-05	3.82E-05	1.27E-05	9.56E-06	1.01E-04	9.67E-05	1.10E-04
2022	60	AUTO	Diesel	3.30E-05	3.82E-05	1.15E-05	9.56E-06	1.12E-04	1.07E-04	1.16E-04
2022	65	AUTO	Diesel	2.96E-05	3.82E-05	1.04E-05	9.56E-06	1.28E-04	1.23E-04	1.28E-04
2022	70	AUTO	Diesel	2.96E-05	3.82E-05	1.04E-05	9.56E-06	1.45E-04	1.38E-04	1.41E-04
2022	75	AUTO	Diesel	2.96E-05	3.82E-05	1.04E-05	9.56E-06	1.45E-04	1.38E-04	1.41E-04
2022	5	AUTO	Electricity	3.68E-05	2.22E-04	1.29E-05	5.55E-05	--	--	--
2022	10	AUTO	Electricity	6.51E-05	2.22E-04	2.28E-05	5.55E-05	--	--	--
2022	15	AUTO	Electricity	9.33E-05	2.22E-04	3.27E-05	5.55E-05	--	--	--
2022	20	AUTO	Electricity	1.22E-04	2.22E-04	4.26E-05	5.55E-05	--	--	--
2022	25	AUTO	Electricity	1.38E-04	2.22E-04	4.85E-05	5.55E-05	--	--	--
2022	30	AUTO	Electricity	1.44E-04	2.22E-04	5.03E-05	5.55E-05	--	--	--
2022	35	AUTO	Electricity	1.49E-04	2.22E-04	5.22E-05	5.55E-05	--	--	--
2022	40	AUTO	Electricity	1.38E-04	2.22E-04	4.82E-05	5.55E-05	--	--	--
2022	45	AUTO	Electricity	1.09E-04	2.22E-04	3.83E-05	5.55E-05	--	--	--
2022	50	AUTO	Electricity	8.12E-05	2.22E-04	2.84E-05	5.55E-05	--	--	--
2022	55	AUTO	Electricity	5.99E-05	2.22E-04	2.10E-05	5.55E-05	--	--	--
2022	60	AUTO	Electricity	4.55E-05	2.22E-04	1.59E-05	5.55E-05	--	--	--
2022	65	AUTO	Electricity	3.12E-05	2.22E-04	1.09E-05	5.55E-05	--	--	--
2022	70	AUTO	Electricity	3.12E-05	2.22E-04	1.09E-05	5.55E-05	--	--	--
2022	75	AUTO	Electricity	--	--	--	--	--	--	--
2022	5	AUTO	Plug-in Hybrid	2.35E-05	1.42E-04	8.22E-06	3.54E-05	1.05E-04	9.67E-05	4.42E-04
2022	10	AUTO	Plug-in Hybrid	4.16E-05	1.42E-04	1.45E-05	3.54E-05	4.31E-05	3.96E-05	1.74E-04
2022	15	AUTO	Plug-in Hybrid	5.96E-05	1.42E-04	2.09E-05	3.54E-05	1.79E-05	1.65E-05	1.02E-04
2022	20	AUTO	Plug-in Hybrid	7.78E-05	1.42E-04	2.72E-05	3.54E-05	1.42E-05	1.31E-05	9.43E-05
2022	25	AUTO	Plug-in Hybrid	8.85E-05	1.42E-04	3.10E-05	3.54E-05	9.04E-06	8.31E-06	8.10E-05
2022	30	AUTO	Plug-in Hybrid	9.18E-05	1.42E-04	3.21E-05	3.54E-05	1.09E-05	1.01E-05	8.88E-05
2022	35	AUTO	Plug-in Hybrid	9.53E-05	1.42E-04	3.33E-05	3.54E-05	1.18E-05	1.09E-05	9.29E-05
2022	40	AUTO	Plug-in Hybrid	8.80E-05	1.42E-04	3.08E-05	3.54E-05	1.20E-05	1.10E-05	9.35E-05
2022	45	AUTO	Plug-in Hybrid	6.99E-05	1.42E-04	2.45E-05	3.54E-05	1.45E-05	1.33E-05	1.00E-04
2022	50	AUTO	Plug-in Hybrid	5.19E-05	1.42E-04	1.82E-05	3.54E-05	1.65E-05	1.52E-05	1.03E-04
2022	55	AUTO	Plug-in Hybrid	3.83E-05	1.42E-04	1.34E-05	3.54E-05	1.87E-05	1.72E-05	1.03E-04
2022	60	AUTO	Plug-in Hybrid	2.91E-05	1.42E-04	1.02E-05	3.54E-05	2.12E-05	1.95E-05	1.01E-04
2022	65	AUTO	Plug-in Hybrid	2.00E-05	1.42E-04	6.99E-06	3.54E-05	2.43E-05	2.24E-05	9.77E-05
2022	70	AUTO	Plug-in Hybrid	2.00E-05	1.42E-04	6.99E-06	3.54E-05	2.65E-05	2.43E-05	9.43E-05
2022	75	AUTO	Plug-in Hybrid	2.00E-05	1.42E-04	6.99E-06	3.54E-05	2.65E-05	2.43E-05	9.45E-05
2022	5	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	10	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	15	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	20	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	25	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	30	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	35	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	40	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	45	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	50	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	55	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	60	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	65	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	70	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	75	AUTO	Natural Gas	--	--	--	--	--	--	--
2022	5	LHDT	Gasoline	1.53E-02	7.06E-03	5.36E-03	1.76E-03	8.47E-03	7.79E-03	2.32E-01

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2022	5	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2022	5	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2022	10	LHDT	Gasoline	1.69E-02	7.06E-03	5.91E-03	1.76E-03	5.39E-03	4.95E-03	1.65E-01
2022	15	LHDT	Gasoline	1.85E-02	7.06E-03	6.47E-03	1.76E-03	3.62E-03	3.33E-03	1.25E-01
2022	20	LHDT	Gasoline	2.01E-02	7.06E-03	7.02E-03	1.76E-03	2.56E-03	2.35E-03	1.02E-01
2022	25	LHDT	Gasoline	2.07E-02	7.06E-03	7.25E-03	1.76E-03	1.91E-03	1.76E-03	8.71E-02
2022	30	LHDT	Gasoline	2.04E-02	7.06E-03	7.15E-03	1.76E-03	1.50E-03	1.38E-03	7.78E-02
2022	35	LHDT	Gasoline	2.01E-02	7.06E-03	7.05E-03	1.76E-03	1.24E-03	1.14E-03	7.19E-02
2022	40	LHDT	Gasoline	1.88E-02	7.06E-03	6.58E-03	1.76E-03	1.08E-03	9.96E-04	6.81E-02
2022	45	LHDT	Gasoline	1.64E-02	7.06E-03	5.75E-03	1.76E-03	9.95E-04	9.15E-04	6.61E-02
2022	50	LHDT	Gasoline	1.41E-02	7.06E-03	4.93E-03	1.76E-03	9.64E-04	8.87E-04	6.54E-02
2022	55	LHDT	Gasoline	1.25E-02	7.06E-03	4.37E-03	1.76E-03	9.84E-04	9.05E-04	6.58E-02
2022	60	LHDT	Gasoline	2.82E-03	6.17E-03	9.86E-04	1.54E-03	9.39E-04	8.63E-04	4.82E-02
2022	65	LHDT	Gasoline	1.99E-03	6.17E-03	6.97E-04	1.54E-03	1.06E-03	9.76E-04	5.06E-02
2022	70	LHDT	Gasoline	1.99E-03	6.17E-03	6.97E-04	1.54E-03	1.15E-03	1.06E-03	5.24E-02
2022	75	LHDT	Gasoline	1.99E-03	6.17E-03	6.97E-04	1.54E-03	1.15E-03	1.06E-03	5.24E-02
2022	5	LHDT	Diesel	7.91E-03	1.26E-03	2.77E-03	3.16E-04	1.15E-02	1.10E-02	5.91E-02
2022	10	LHDT	Diesel	7.94E-03	1.26E-03	2.78E-03	3.16E-04	9.29E-03	8.89E-03	4.77E-02
2022	15	LHDT	Diesel	7.97E-03	1.26E-03	2.79E-03	3.16E-04	7.59E-03	7.26E-03	3.84E-02
2022	20	LHDT	Diesel	8.00E-03	1.26E-03	2.80E-03	3.16E-04	6.24E-03	5.97E-03	3.13E-02
2022	25	LHDT	Diesel	8.01E-03	1.26E-03	2.80E-03	3.16E-04	5.15E-03	4.92E-03	2.61E-02
2022	30	LHDT	Diesel	8.01E-03	1.26E-03	2.80E-03	3.16E-04	4.27E-03	4.09E-03	2.19E-02
2022	35	LHDT	Diesel	8.00E-03	1.26E-03	2.80E-03	3.16E-04	3.59E-03	3.43E-03	1.85E-02
2022	40	LHDT	Diesel	7.98E-03	1.26E-03	2.79E-03	3.16E-04	3.07E-03	2.94E-03	1.58E-02
2022	45	LHDT	Diesel	7.93E-03	1.26E-03	2.78E-03	3.16E-04	2.71E-03	2.59E-03	1.38E-02
2022	50	LHDT	Diesel	7.89E-03	1.26E-03	2.76E-03	3.16E-04	2.51E-03	2.40E-03	1.24E-02
2022	55	LHDT	Diesel	7.86E-03	1.26E-03	2.75E-03	3.16E-04	2.45E-03	2.35E-03	1.16E-02
2022	60	LHDT	Diesel	5.32E-05	1.18E-04	1.86E-05	2.94E-05	1.01E-04	9.62E-05	1.83E-04
2022	65	LHDT	Diesel	3.76E-05	1.18E-04	1.32E-05	2.94E-05	1.09E-04	1.04E-04	1.97E-04
2022	70	LHDT	Diesel	3.76E-05	1.18E-04	1.32E-05	2.94E-05	1.15E-04	1.10E-04	2.07E-04
2022	75	LHDT	Diesel	3.76E-05	1.18E-04	1.32E-05	2.94E-05	1.15E-04	1.10E-04	2.07E-04
2022	5	LHDT	Electricity	3.70E-06	2.24E-05	1.30E-06	5.61E-06	--	--	--
2022	10	LHDT	Electricity	6.55E-06	2.24E-05	2.29E-06	5.61E-06	--	--	--
2022	15	LHDT	Electricity	9.40E-06	2.24E-05	3.29E-06	5.61E-06	--	--	--
2022	20	LHDT	Electricity	1.23E-05	2.24E-05	4.29E-06	5.61E-06	--	--	--
2022	25	LHDT	Electricity	1.39E-05	2.24E-05	4.88E-06	5.61E-06	--	--	--
2022	30	LHDT	Electricity	1.45E-05	2.24E-05	5.06E-06	5.61E-06	--	--	--
2022	35	LHDT	Electricity	1.50E-05	2.24E-05	5.25E-06	5.61E-06	--	--	--
2022	40	LHDT	Electricity	1.39E-05	2.24E-05	4.85E-06	5.61E-06	--	--	--
2022	45	LHDT	Electricity	1.10E-05	2.24E-05	3.85E-06	5.61E-06	--	--	--
2022	50	LHDT	Electricity	8.17E-06	2.24E-05	2.86E-06	5.61E-06	--	--	--
2022	55	LHDT	Electricity	6.03E-06	2.24E-05	2.11E-06	5.61E-06	--	--	--
2022	60	LHDT	Electricity	4.58E-06	2.24E-05	1.60E-06	5.61E-06	--	--	--
2022	65	LHDT	Electricity	3.14E-06	2.24E-05	1.10E-06	5.61E-06	--	--	--
2022	70	LHDT	Electricity	3.14E-06	2.24E-05	1.10E-06	5.61E-06	--	--	--
2022	75	LHDT	Electricity	--	--	--	--	--	--	--
2022	5	LHDT	Plug-in Hybrid	6.30E-06	3.80E-05	2.20E-06	9.50E-06	2.97E-05	2.73E-05	1.15E-04
2022	10	LHDT	Plug-in Hybrid	1.11E-05	3.80E-05	3.90E-06	9.50E-06	1.21E-05	1.12E-05	4.40E-05
2022	15	LHDT	Plug-in Hybrid	1.60E-05	3.80E-05	5.60E-06	9.50E-06	5.03E-06	4.62E-06	2.49E-05
2022	20	LHDT	Plug-in Hybrid	2.09E-05	3.80E-05	7.30E-06	9.50E-06	4.00E-06	3.68E-06	2.28E-05
2022	25	LHDT	Plug-in Hybrid	2.37E-05	3.80E-05	8.30E-06	9.50E-06	2.54E-06	2.33E-06	1.92E-05
2022	30	LHDT	Plug-in Hybrid	2.46E-05	3.80E-05	8.62E-06	9.50E-06	3.08E-06	2.83E-06	2.13E-05
2022	35	LHDT	Plug-in Hybrid	2.55E-05	3.80E-05	8.94E-06	9.50E-06	3.34E-06	3.07E-06	2.24E-05
2022	40	LHDT	Plug-in Hybrid	2.36E-05	3.80E-05	8.25E-06	9.50E-06	3.38E-06	3.11E-06	2.26E-05
2022	45	LHDT	Plug-in Hybrid	1.87E-05	3.80E-05	6.56E-06	9.50E-06	4.10E-06	3.77E-06	2.44E-05
2022	50	LHDT	Plug-in Hybrid	1.39E-05	3.80E-05	4.87E-06	9.50E-06	4.70E-06	4.32E-06	2.52E-05
2022	55	LHDT	Plug-in Hybrid	1.03E-05	3.80E-05	3.59E-06	9.50E-06	5.32E-06	4.89E-06	2.53E-05
2022	60	LHDT	Plug-in Hybrid	7.80E-06	3.80E-05	2.73E-06	9.50E-06	6.05E-06	5.56E-06	2.48E-05
2022	65	LHDT	Plug-in Hybrid	5.35E-06	3.80E-05	1.87E-06	9.50E-06	6.95E-06	6.39E-06	2.38E-05
2022	70	LHDT	Plug-in Hybrid	5.35E-06	3.80E-05	1.87E-06	9.50E-06	7.55E-06	6.95E-06	2.29E-05
2022	75	LHDT	Plug-in Hybrid	5.35E-06	3.80E-05	1.87E-06	9.50E-06	7.56E-06	6.95E-06	2.30E-05
2022	5	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	10	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	15	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	20	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	25	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	30	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	35	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	40	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	45	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	50	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	55	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	60	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	65	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	70	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	75	LHDT	Natural Gas	--	--	--	--	--	--	--
2022	5	MHDT	Gasoline	1.26E-02	2.46E-03	4.41E-03	6.15E-04	1.56E-03	1.43E-03	2.12E-01
2022	10	MHDT	Gasoline	1.26E-02	2.46E-03	4.41E-03	6.15E-04	9.85E-04	9.05E-04	1.47E-01

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2022	10	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2022	10	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2022	15	MHDT	Gasoline	1.26E-02	2.46E-03	4.41E-03	6.15E-04	6.57E-04	6.04E-04	1.10E-01
2022	20	MHDT	Gasoline	1.24E-02	2.46E-03	4.35E-03	6.15E-04	4.63E-04	4.26E-04	8.78E-02
2022	25	MHDT	Gasoline	1.02E-02	2.46E-03	3.57E-03	6.15E-04	3.44E-04	3.16E-04	7.39E-02
2022	30	MHDT	Gasoline	9.10E-03	2.46E-03	3.18E-03	6.15E-04	2.69E-04	2.48E-04	6.53E-02
2022	35	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	2.23E-04	2.05E-04	5.98E-02
2022	40	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	1.94E-04	1.78E-04	5.64E-02
2022	45	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	1.78E-04	1.64E-04	5.46E-02
2022	50	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	1.73E-04	1.59E-04	5.40E-02
2022	55	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	1.76E-04	1.62E-04	5.45E-02
2022	60	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	1.90E-04	1.74E-04	5.62E-02
2022	65	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	2.15E-04	1.98E-04	5.95E-02
2022	70	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	2.34E-04	2.15E-04	6.17E-02
2022	75	MHDT	Gasoline	8.52E-03	2.46E-03	2.98E-03	6.15E-04	2.34E-04	2.15E-04	6.16E-02
2022	5	MHDT	Diesel	4.81E-02	9.39E-03	1.68E-02	2.35E-03	6.42E-02	6.14E-02	3.56E-01
2022	10	MHDT	Diesel	4.81E-02	9.39E-03	1.68E-02	2.35E-03	4.84E-02	4.63E-02	2.53E-01
2022	15	MHDT	Diesel	4.81E-02	9.39E-03	1.68E-02	2.35E-03	3.17E-02	3.04E-02	1.41E-01
2022	20	MHDT	Diesel	4.74E-02	9.39E-03	1.66E-02	2.35E-03	2.06E-02	1.97E-02	7.74E-02
2022	25	MHDT	Diesel	3.90E-02	9.39E-03	1.36E-02	2.35E-03	1.62E-02	1.55E-02	5.70E-02
2022	30	MHDT	Diesel	3.47E-02	9.39E-03	1.22E-02	2.35E-03	1.36E-02	1.30E-02	4.52E-02
2022	35	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.19E-02	1.14E-02	3.64E-02
2022	40	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.12E-02	1.07E-02	3.07E-02
2022	45	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.14E-02	1.09E-02	2.71E-02
2022	50	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.21E-02	1.16E-02	2.53E-02
2022	55	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.34E-02	1.28E-02	2.53E-02
2022	60	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.45E-02	1.39E-02	2.61E-02
2022	65	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.51E-02	1.44E-02	2.63E-02
2022	70	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.43E-02	1.37E-02	2.51E-02
2022	75	MHDT	Diesel	3.25E-02	9.39E-03	1.14E-02	2.35E-03	1.39E-02	1.33E-02	2.43E-02
2022	5	MHDT	Electricity	--	--	--	--	--	--	--
2022	10	MHDT	Electricity	--	--	--	--	--	--	--
2022	15	MHDT	Electricity	--	--	--	--	--	--	--
2022	20	MHDT	Electricity	--	--	--	--	--	--	--
2022	25	MHDT	Electricity	--	--	--	--	--	--	--
2022	30	MHDT	Electricity	--	--	--	--	--	--	--
2022	35	MHDT	Electricity	--	--	--	--	--	--	--
2022	40	MHDT	Electricity	--	--	--	--	--	--	--
2022	45	MHDT	Electricity	--	--	--	--	--	--	--
2022	50	MHDT	Electricity	--	--	--	--	--	--	--
2022	55	MHDT	Electricity	--	--	--	--	--	--	--
2022	60	MHDT	Electricity	--	--	--	--	--	--	--
2022	65	MHDT	Electricity	--	--	--	--	--	--	--
2022	70	MHDT	Electricity	--	--	--	--	--	--	--
2022	75	MHDT	Electricity	--	--	--	--	--	--	--
2022	5	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	10	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	15	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	20	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	25	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	30	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	35	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	40	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	45	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	50	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	55	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	60	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	65	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	70	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	75	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	5	MHDT	Natural Gas	7.92E-04	1.55E-04	2.77E-04	3.87E-05	5.37E-05	4.94E-05	5.47E-02
2022	10	MHDT	Natural Gas	7.92E-04	1.55E-04	2.77E-04	3.87E-05	5.46E-05	5.02E-05	3.77E-02
2022	15	MHDT	Natural Gas	7.92E-04	1.55E-04	2.77E-04	3.87E-05	4.57E-05	4.20E-05	2.46E-02
2022	20	MHDT	Natural Gas	7.81E-04	1.55E-04	2.73E-04	3.87E-05	3.76E-05	3.46E-05	1.90E-02
2022	25	MHDT	Natural Gas	6.42E-04	1.55E-04	2.25E-04	3.87E-05	3.06E-05	2.82E-05	1.58E-02
2022	30	MHDT	Natural Gas	5.72E-04	1.55E-04	2.00E-04	3.87E-05	2.49E-05	2.29E-05	1.38E-02
2022	35	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	2.03E-05	1.87E-05	1.23E-02
2022	40	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.70E-05	1.56E-05	1.13E-02
2022	45	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.49E-05	1.37E-05	1.05E-02
2022	50	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.40E-05	1.29E-05	9.84E-03
2022	55	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.43E-05	1.32E-05	9.33E-03
2022	60	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.44E-05	1.32E-05	9.33E-03
2022	65	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.44E-05	1.33E-05	9.35E-03
2022	70	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.45E-05	1.33E-05	9.35E-03
2022	75	MHDT	Natural Gas	5.36E-04	1.55E-04	1.88E-04	3.87E-05	1.44E-05	1.33E-05	9.35E-03
2022	5	HHDT	Gasoline	5.05E-05	6.17E-06	1.77E-05	1.54E-06	5.22E-06	4.80E-06	4.03E-03
2022	10	HHDT	Gasoline	5.05E-05	6.17E-06	1.77E-05	1.54E-06	3.48E-06	3.20E-06	2.73E-03
2022	15	HHDT	Gasoline	4.98E-05	6.17E-06	1.74E-05	1.54E-06	2.44E-06	2.24E-06	1.96E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2022	15	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2022	15	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2022	20	HHDT	Gasoline	4.87E-05	6.17E-06	1.71E-05	1.54E-06	1.80E-06	1.65E-06	1.48E-03
2022	25	HHDT	Gasoline	4.77E-05	6.17E-06	1.67E-05	1.54E-06	1.39E-06	1.28E-06	1.18E-03
2022	30	HHDT	Gasoline	4.70E-05	6.17E-06	1.64E-05	1.54E-06	1.14E-06	1.04E-06	9.88E-04
2022	35	HHDT	Gasoline	3.98E-05	6.17E-06	1.39E-05	1.54E-06	9.72E-07	8.94E-07	8.67E-04
2022	40	HHDT	Gasoline	3.45E-05	6.17E-06	1.21E-05	1.54E-06	8.74E-07	8.03E-07	7.94E-04
2022	45	HHDT	Gasoline	2.93E-05	6.17E-06	1.02E-05	1.54E-06	8.24E-07	7.58E-07	7.56E-04
2022	50	HHDT	Gasoline	2.55E-05	6.17E-06	8.93E-06	1.54E-06	8.16E-07	7.50E-07	7.49E-04
2022	55	HHDT	Gasoline	2.55E-05	6.17E-06	8.93E-06	1.54E-06	8.47E-07	7.79E-07	7.70E-04
2022	60	HHDT	Gasoline	2.55E-05	6.17E-06	8.93E-06	1.54E-06	9.23E-07	8.49E-07	8.22E-04
2022	65	HHDT	Gasoline	2.55E-05	6.17E-06	8.93E-06	1.54E-06	1.06E-06	9.70E-07	9.14E-04
2022	70	HHDT	Gasoline	2.55E-05	6.17E-06	8.93E-06	1.54E-06	1.15E-06	1.06E-06	9.74E-04
2022	75	HHDT	Gasoline	2.55E-05	6.17E-06	8.93E-06	1.54E-06	1.15E-06	1.06E-06	9.72E-04
2022	5	HHDT	Diesel	1.53E-01	3.41E-02	5.34E-02	8.53E-03	1.16E-01	1.11E-01	7.30E-01
2022	10	HHDT	Diesel	1.47E-01	3.41E-02	5.14E-02	8.53E-03	3.58E-02	3.43E-02	3.31E-01
2022	15	HHDT	Diesel	1.43E-01	3.41E-02	5.00E-02	8.53E-03	1.80E-02	1.72E-02	1.95E-01
2022	20	HHDT	Diesel	7.27E-02	3.41E-02	2.54E-02	8.53E-03	1.02E-02	9.75E-03	1.28E-01
2022	25	HHDT	Diesel	1.36E-01	3.41E-02	4.75E-02	8.53E-03	1.32E-02	1.26E-02	1.24E-01
2022	30	HHDT	Diesel	1.34E-01	3.41E-02	4.70E-02	8.53E-03	1.39E-02	1.33E-02	1.08E-01
2022	35	HHDT	Diesel	1.16E-01	3.41E-02	4.05E-02	8.53E-03	1.41E-02	1.35E-02	9.41E-02
2022	40	HHDT	Diesel	1.01E-01	3.41E-02	3.54E-02	8.53E-03	1.48E-02	1.42E-02	8.31E-02
2022	45	HHDT	Diesel	8.70E-02	3.41E-02	3.04E-02	8.53E-03	1.68E-02	1.61E-02	7.67E-02
2022	50	HHDT	Diesel	7.59E-02	3.41E-02	2.66E-02	8.53E-03	1.89E-02	1.81E-02	7.11E-02
2022	55	HHDT	Diesel	7.30E-02	3.41E-02	2.55E-02	8.53E-03	2.28E-02	2.18E-02	6.86E-02
2022	60	HHDT	Diesel	6.98E-02	3.41E-02	2.44E-02	8.53E-03	2.84E-02	2.72E-02	6.78E-02
2022	65	HHDT	Diesel	6.91E-02	3.41E-02	2.42E-02	8.53E-03	3.45E-02	3.30E-02	6.90E-02
2022	70	HHDT	Diesel	6.80E-02	3.41E-02	2.38E-02	8.53E-03	3.63E-02	3.47E-02	6.78E-02
2022	75	HHDT	Diesel	6.77E-02	3.41E-02	2.37E-02	8.53E-03	3.60E-02	3.44E-02	6.76E-02
2022	5	HHDT	Electricity	--	--	--	--	--	--	--
2022	10	HHDT	Electricity	--	--	--	--	--	--	--
2022	15	HHDT	Electricity	--	--	--	--	--	--	--
2022	20	HHDT	Electricity	--	--	--	--	--	--	--
2022	25	HHDT	Electricity	--	--	--	--	--	--	--
2022	30	HHDT	Electricity	--	--	--	--	--	--	--
2022	35	HHDT	Electricity	--	--	--	--	--	--	--
2022	40	HHDT	Electricity	--	--	--	--	--	--	--
2022	45	HHDT	Electricity	--	--	--	--	--	--	--
2022	50	HHDT	Electricity	--	--	--	--	--	--	--
2022	55	HHDT	Electricity	--	--	--	--	--	--	--
2022	60	HHDT	Electricity	--	--	--	--	--	--	--
2022	65	HHDT	Electricity	--	--	--	--	--	--	--
2022	70	HHDT	Electricity	--	--	--	--	--	--	--
2022	75	HHDT	Electricity	--	--	--	--	--	--	--
2022	5	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	10	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	15	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	20	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	25	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	30	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	35	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	40	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	45	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	50	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	55	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	60	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	65	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	70	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	75	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2022	5	HHDT	Natural Gas	4.50E-03	1.18E-03	1.57E-03	2.95E-04	3.02E-04	2.78E-04	2.73E-01
2022	10	HHDT	Natural Gas	6.64E-03	1.18E-03	2.32E-03	2.95E-04	4.25E-04	3.91E-04	4.32E-01
2022	15	HHDT	Natural Gas	6.65E-03	1.18E-03	2.33E-03	2.95E-04	2.92E-04	2.69E-04	2.55E-01
2022	20	HHDT	Natural Gas	6.64E-03	1.18E-03	2.32E-03	2.95E-04	1.98E-04	1.82E-04	1.68E-01
2022	25	HHDT	Natural Gas	6.54E-03	1.18E-03	2.29E-03	2.95E-04	1.53E-04	1.41E-04	1.30E-01
2022	30	HHDT	Natural Gas	6.46E-03	1.18E-03	2.26E-03	2.95E-04	1.25E-04	1.15E-04	1.07E-01
2022	35	HHDT	Natural Gas	6.31E-03	1.18E-03	2.21E-03	2.95E-04	1.04E-04	9.61E-05	9.12E-02
2022	40	HHDT	Natural Gas	6.17E-03	1.18E-03	2.16E-03	2.95E-04	9.18E-05	8.44E-05	7.98E-02
2022	45	HHDT	Natural Gas	6.02E-03	1.18E-03	2.11E-03	2.95E-04	8.67E-05	7.97E-05	7.15E-02
2022	50	HHDT	Natural Gas	5.83E-03	1.18E-03	2.04E-03	2.95E-04	8.82E-05	8.11E-05	6.53E-02
2022	55	HHDT	Natural Gas	5.48E-03	1.18E-03	1.92E-03	2.95E-04	9.33E-05	8.58E-05	5.94E-02
2022	60	HHDT	Natural Gas	4.75E-03	1.18E-03	1.66E-03	2.95E-04	8.75E-05	8.05E-05	5.48E-02
2022	65	HHDT	Natural Gas	4.21E-03	1.18E-03	1.47E-03	2.95E-04	7.89E-05	7.25E-05	5.09E-02
2022	70	HHDT	Natural Gas	3.83E-03	1.18E-03	1.34E-03	2.95E-04	7.32E-05	6.73E-05	4.82E-02
2022	75	HHDT	Natural Gas	2.43E-03	1.18E-03	8.51E-04	2.95E-04	5.09E-05	4.68E-05	3.82E-02
2022	5	BUS	Gasoline	1.69E-02	3.28E-03	5.91E-03	8.21E-04	1.33E-03	1.22E-03	2.25E-01
2022	10	BUS	Gasoline	2.00E-02	3.28E-03	6.99E-03	8.21E-04	1.23E-03	1.13E-03	2.13E-01
2022	15	BUS	Gasoline	2.00E-02	3.28E-03	6.99E-03	8.21E-04	8.29E-04	7.63E-04	1.55E-01
2022	20	BUS	Gasoline	1.98E-02	3.28E-03	6.91E-03	8.21E-04	5.91E-04	5.43E-04	1.21E-01

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2022	20	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG _fc1**	**PM2.5_FUG _fc2**	**PM2.5_FUG _fc3**	**PM2.5_FUG _fc4**	**PM2.5_FUG _fc5**	**PM2.5_FUG _fc6**	**PM2.5_FUG _fc7**	**PM2.5_FUG _fc8**	**PM2.5_FUG _fc9**
2022	20	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2022	25	BUS	Gasoline	1.69E-02	3.28E-03	5.93E-03	8.21E-04	4.44E-04	4.08E-04	9.95E-02
2022	30	BUS	Gasoline	1.55E-02	3.28E-03	5.44E-03	8.21E-04	3.51E-04	3.22E-04	8.62E-02
2022	35	BUS	Gasoline	1.49E-02	3.28E-03	5.21E-03	8.21E-04	2.92E-04	2.68E-04	7.79E-02
2022	40	BUS	Gasoline	1.51E-02	3.28E-03	5.28E-03	8.21E-04	2.56E-04	2.36E-04	7.28E-02
2022	45	BUS	Gasoline	1.49E-02	3.28E-03	5.22E-03	8.21E-04	2.36E-04	2.17E-04	6.99E-02
2022	50	BUS	Gasoline	1.48E-02	3.28E-03	5.18E-03	8.21E-04	2.30E-04	2.12E-04	6.89E-02
2022	55	BUS	Gasoline	1.48E-02	3.28E-03	5.18E-03	8.21E-04	2.36E-04	2.17E-04	6.95E-02
2022	60	BUS	Gasoline	1.56E-02	3.28E-03	5.46E-03	8.21E-04	2.52E-04	2.31E-04	7.24E-02
2022	65	BUS	Gasoline	1.56E-02	3.28E-03	5.46E-03	8.21E-04	2.85E-04	2.62E-04	7.73E-02
2022	70	BUS	Gasoline	1.56E-02	3.28E-03	5.46E-03	8.21E-04	3.10E-04	2.85E-04	8.09E-02
2022	75	BUS	Gasoline	1.56E-02	3.28E-03	5.46E-03	8.21E-04	3.10E-04	2.85E-04	8.11E-02
2022	5	BUS	Diesel	9.91E-03	1.93E-03	3.47E-03	4.83E-04	3.13E-02	3.00E-02	1.92E-01
2022	10	BUS	Diesel	2.04E-02	3.80E-03	7.14E-03	9.50E-04	4.48E-02	4.29E-02	2.47E-01
2022	15	BUS	Diesel	2.14E-02	3.80E-03	7.51E-03	9.50E-04	2.85E-02	2.72E-02	1.29E-01
2022	20	BUS	Diesel	2.12E-02	3.80E-03	7.43E-03	9.50E-04	1.87E-02	1.79E-02	6.69E-02
2022	25	BUS	Diesel	1.75E-02	3.80E-03	6.13E-03	9.50E-04	1.51E-02	1.45E-02	4.99E-02
2022	30	BUS	Diesel	1.55E-02	3.80E-03	5.41E-03	9.50E-04	1.31E-02	1.26E-02	4.09E-02
2022	35	BUS	Diesel	1.39E-02	3.80E-03	4.86E-03	9.50E-04	1.18E-02	1.13E-02	3.40E-02
2022	40	BUS	Diesel	1.38E-02	3.80E-03	4.83E-03	9.50E-04	1.10E-02	1.05E-02	2.87E-02
2022	45	BUS	Diesel	1.39E-02	3.80E-03	4.88E-03	9.50E-04	1.06E-02	1.02E-02	2.51E-02
2022	50	BUS	Diesel	1.49E-02	3.80E-03	5.20E-03	9.50E-04	1.02E-02	9.79E-03	2.16E-02
2022	55	BUS	Diesel	1.68E-02	3.80E-03	5.88E-03	9.50E-04	9.75E-03	9.33E-03	1.80E-02
2022	60	BUS	Diesel	1.77E-02	3.80E-03	6.21E-03	9.50E-04	1.02E-02	9.76E-03	1.68E-02
2022	65	BUS	Diesel	1.78E-02	3.80E-03	6.22E-03	9.50E-04	1.13E-02	1.08E-02	1.74E-02
2022	70	BUS	Diesel	1.78E-02	3.80E-03	6.22E-03	9.50E-04	1.13E-02	1.08E-02	1.74E-02
2022	75	BUS	Diesel	1.78E-02	3.80E-03	6.22E-03	9.50E-04	1.13E-02	1.08E-02	1.74E-02
2022	5	BUS	Electricity	--	--	--	--	--	--	--
2022	10	BUS	Electricity	--	--	--	--	--	--	--
2022	15	BUS	Electricity	--	--	--	--	--	--	--
2022	20	BUS	Electricity	--	--	--	--	--	--	--
2022	25	BUS	Electricity	--	--	--	--	--	--	--
2022	30	BUS	Electricity	--	--	--	--	--	--	--
2022	35	BUS	Electricity	--	--	--	--	--	--	--
2022	40	BUS	Electricity	--	--	--	--	--	--	--
2022	45	BUS	Electricity	--	--	--	--	--	--	--
2022	50	BUS	Electricity	--	--	--	--	--	--	--
2022	55	BUS	Electricity	--	--	--	--	--	--	--
2022	60	BUS	Electricity	--	--	--	--	--	--	--
2022	65	BUS	Electricity	--	--	--	--	--	--	--
2022	70	BUS	Electricity	--	--	--	--	--	--	--
2022	75	BUS	Electricity	--	--	--	--	--	--	--
2022	5	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	10	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	15	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	20	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	25	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	30	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	35	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	40	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	45	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	50	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	55	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	60	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	65	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	70	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	75	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2022	5	BUS	Natural Gas	1.15E-03	1.30E-02	4.03E-04	3.25E-03	6.57E-05	6.04E-05	7.52E-02
2022	10	BUS	Natural Gas	4.08E-02	1.30E-02	1.43E-02	3.26E-03	2.72E-04	2.57E-04	1.87E+00
2022	15	BUS	Natural Gas	4.08E-02	1.30E-02	1.43E-02	3.26E-03	2.21E-04	2.09E-04	1.26E+00
2022	20	BUS	Natural Gas	4.07E-02	1.30E-02	1.43E-02	3.26E-03	1.77E-04	1.68E-04	1.00E+00
2022	25	BUS	Natural Gas	4.05E-02	1.30E-02	1.42E-02	3.26E-03	1.40E-04	1.33E-04	8.59E-01
2022	30	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	1.09E-04	1.03E-04	7.66E-01
2022	35	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	8.51E-05	8.05E-05	7.01E-01
2022	40	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	6.74E-05	6.38E-05	6.52E-01
2022	45	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	5.62E-05	5.32E-05	6.15E-01
2022	50	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	5.49E-05	5.20E-05	6.14E-01
2022	55	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	5.55E-05	5.25E-05	6.13E-01
2022	60	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	5.55E-05	5.25E-05	6.13E-01
2022	65	BUS	Natural Gas	4.04E-02	1.30E-02	1.41E-02	3.26E-03	5.55E-05	5.25E-05	6.13E-01
2022	70	BUS	Natural Gas	3.96E-02	1.28E-02	1.39E-02	3.20E-03	4.30E-05	4.10E-05	6.05E-01
2022	75	BUS	Natural Gas	3.96E-02	1.28E-02	1.39E-02	3.20E-03	4.30E-05	4.10E-05	6.05E-01
2035	5	AUTO	Gasoline	6.06E-03	7.05E-03	2.12E-03	1.76E-03	4.63E-03	4.26E-03	1.03E-01
2035	10	AUTO	Gasoline	7.49E-03	7.05E-03	2.62E-03	1.76E-03	2.92E-03	2.68E-03	7.45E-02
2035	15	AUTO	Gasoline	8.92E-03	7.05E-03	3.12E-03	1.76E-03	1.94E-03	1.78E-03	5.84E-02
2035	20	AUTO	Gasoline	1.04E-02	7.05E-03	3.62E-03	1.76E-03	1.36E-03	1.25E-03	4.88E-02
2035	25	AUTO	Gasoline	1.13E-02	7.05E-03	3.94E-03	1.76E-03	1.00E-03	9.23E-04	4.30E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2022	25	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	5	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	10	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	15	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	20	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	25	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	30	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	35	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	40	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	45	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	50	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	55	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	60	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	65	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	70	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2022	75	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2022	25	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	5	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	10	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	15	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	20	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	25	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	30	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	35	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	40	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	45	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	50	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	55	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	60	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	65	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	70	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2022	75	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

Year	Speed	SANDAG Veh class	Fuel (name)	Exhaust PM10_PMBW	PM10_PMTW	PM2.5_PMBW	PM2.5_PMTW	PM10_RUNIDL	PM2.5_RUNIDL	TOG_RUNIDLLOSS
2035	30	AUTO	Gasoline	1.16E-02	7.05E-03	4.08E-03	1.76E-03	7.82E-04	7.19E-04	3.93E-02
2035	35	AUTO	Gasoline	1.20E-02	7.05E-03	4.21E-03	1.76E-03	6.43E-04	5.91E-04	3.70E-02
2035	40	AUTO	Gasoline	1.09E-02	7.05E-03	3.80E-03	1.76E-03	5.58E-04	5.13E-04	3.55E-02
2035	45	AUTO	Gasoline	8.12E-03	7.05E-03	2.84E-03	1.76E-03	5.10E-04	4.69E-04	3.48E-02
2035	50	AUTO	Gasoline	5.38E-03	7.05E-03	1.88E-03	1.76E-03	4.93E-04	4.53E-04	3.45E-02
2035	55	AUTO	Gasoline	3.61E-03	7.05E-03	1.26E-03	1.76E-03	5.02E-04	4.61E-04	3.46E-02
2035	60	AUTO	Gasoline	2.80E-03	7.05E-03	9.78E-04	1.76E-03	5.39E-04	4.95E-04	3.53E-02
2035	65	AUTO	Gasoline	1.98E-03	7.05E-03	6.94E-04	1.76E-03	6.10E-04	5.61E-04	3.65E-02
2035	70	AUTO	Gasoline	1.98E-03	7.05E-03	6.94E-04	1.76E-03	6.63E-04	6.09E-04	3.74E-02
2035	75	AUTO	Gasoline	1.98E-03	7.05E-03	6.94E-04	1.76E-03	6.63E-04	6.09E-04	3.74E-02
2035	5	AUTO	Diesel	3.68E-05	1.93E-05	1.29E-05	4.83E-06	7.53E-05	7.20E-05	8.68E-04
2035	10	AUTO	Diesel	3.97E-05	1.93E-05	1.39E-05	4.83E-06	6.60E-05	6.31E-05	6.50E-04
2035	15	AUTO	Diesel	4.27E-05	1.93E-05	1.49E-05	4.83E-06	5.11E-05	4.89E-05	3.21E-04
2035	20	AUTO	Diesel	4.52E-05	1.93E-05	1.58E-05	4.83E-06	3.97E-05	3.80E-05	1.30E-04
2035	25	AUTO	Diesel	4.24E-05	1.93E-05	1.48E-05	4.83E-06	3.38E-05	3.23E-05	8.19E-05
2035	30	AUTO	Diesel	4.04E-05	1.93E-05	1.41E-05	4.83E-06	3.03E-05	2.90E-05	6.33E-05
2035	35	AUTO	Diesel	3.94E-05	1.93E-05	1.38E-05	4.83E-06	2.82E-05	2.70E-05	5.10E-05
2035	40	AUTO	Diesel	3.69E-05	1.93E-05	1.29E-05	4.83E-06	2.73E-05	2.62E-05	4.25E-05
2035	45	AUTO	Diesel	3.20E-05	1.93E-05	1.12E-05	4.83E-06	2.75E-05	2.63E-05	3.66E-05
2035	50	AUTO	Diesel	2.70E-05	1.93E-05	9.44E-06	4.83E-06	2.87E-05	2.75E-05	3.25E-05
2035	55	AUTO	Diesel	2.37E-05	1.93E-05	8.29E-06	4.83E-06	3.10E-05	2.96E-05	3.00E-05
2035	60	AUTO	Diesel	2.21E-05	1.93E-05	7.73E-06	4.83E-06	3.44E-05	3.29E-05	2.99E-05
2035	65	AUTO	Diesel	2.05E-05	1.93E-05	7.18E-06	4.83E-06	3.90E-05	3.73E-05	3.16E-05
2035	70	AUTO	Diesel	2.05E-05	1.93E-05	7.18E-06	4.83E-06	4.44E-05	4.24E-05	3.40E-05
2035	75	AUTO	Diesel	2.05E-05	1.93E-05	7.18E-06	4.83E-06	4.44E-05	4.24E-05	3.40E-05
2035	5	AUTO	Electricity	1.08E-04	6.47E-04	3.77E-05	1.62E-04	--	--	--
2035	10	AUTO	Electricity	1.91E-04	6.47E-04	6.67E-05	1.62E-04	--	--	--
2035	15	AUTO	Electricity	2.74E-04	6.47E-04	9.57E-05	1.62E-04	--	--	--
2035	20	AUTO	Electricity	3.57E-04	6.47E-04	1.25E-04	1.62E-04	--	--	--
2035	25	AUTO	Electricity	4.06E-04	6.47E-04	1.42E-04	1.62E-04	--	--	--
2035	30	AUTO	Electricity	4.21E-04	6.47E-04	1.47E-04	1.62E-04	--	--	--
2035	35	AUTO	Electricity	4.37E-04	6.47E-04	1.53E-04	1.62E-04	--	--	--
2035	40	AUTO	Electricity	4.03E-04	6.47E-04	1.41E-04	1.62E-04	--	--	--
2035	45	AUTO	Electricity	3.20E-04	6.47E-04	1.12E-04	1.62E-04	--	--	--
2035	50	AUTO	Electricity	2.38E-04	6.47E-04	8.33E-05	1.62E-04	--	--	--
2035	55	AUTO	Electricity	1.75E-04	6.47E-04	6.14E-05	1.62E-04	--	--	--
2035	60	AUTO	Electricity	1.33E-04	6.47E-04	4.67E-05	1.62E-04	--	--	--
2035	65	AUTO	Electricity	9.15E-05	6.47E-04	3.20E-05	1.62E-04	--	--	--
2035	70	AUTO	Electricity	9.15E-05	6.47E-04	3.20E-05	1.62E-04	--	--	--
2035	75	AUTO	Electricity	--	--	--	--	--	--	--
2035	5	AUTO	Plug-in Hybrid	4.43E-05	2.66E-04	1.55E-05	6.65E-05	7.78E-05	7.15E-05	8.09E-04
2035	10	AUTO	Plug-in Hybrid	7.84E-05	2.66E-04	2.74E-05	6.65E-05	2.85E-05	2.62E-05	3.60E-04
2035	15	AUTO	Plug-in Hybrid	1.12E-04	2.66E-04	3.94E-05	6.65E-05	1.16E-05	1.07E-05	2.56E-04
2035	20	AUTO	Plug-in Hybrid	1.47E-04	2.66E-04	5.13E-05	6.65E-05	9.07E-06	8.34E-06	2.43E-04
2035	25	AUTO	Plug-in Hybrid	1.67E-04	2.66E-04	5.84E-05	6.65E-05	6.00E-06	5.51E-06	2.26E-04
2035	30	AUTO	Plug-in Hybrid	1.73E-04	2.66E-04	6.06E-05	6.65E-05	7.23E-06	6.65E-06	2.37E-04
2035	35	AUTO	Plug-in Hybrid	1.80E-04	2.66E-04	6.29E-05	6.65E-05	8.19E-06	7.53E-06	2.46E-04
2035	40	AUTO	Plug-in Hybrid	1.66E-04	2.66E-04	5.80E-05	6.65E-05	8.73E-06	8.02E-06	2.50E-04
2035	45	AUTO	Plug-in Hybrid	1.32E-04	2.66E-04	4.61E-05	6.65E-05	1.13E-05	1.04E-05	2.66E-04
2035	50	AUTO	Plug-in Hybrid	9.78E-05	2.66E-04	3.42E-05	6.65E-05	1.35E-05	1.24E-05	2.75E-04
2035	55	AUTO	Plug-in Hybrid	7.22E-05	2.66E-04	2.53E-05	6.65E-05	1.56E-05	1.44E-05	2.77E-04
2035	60	AUTO	Plug-in Hybrid	5.49E-05	2.66E-04	1.92E-05	6.65E-05	1.83E-05	1.68E-05	2.76E-04
2035	65	AUTO	Plug-in Hybrid	3.76E-05	2.66E-04	1.32E-05	6.65E-05	2.11E-05	1.94E-05	2.70E-04
2035	70	AUTO	Plug-in Hybrid	3.76E-05	2.66E-04	1.32E-05	6.65E-05	2.30E-05	2.11E-05	2.64E-04
2035	75	AUTO	Plug-in Hybrid	3.76E-05	2.66E-04	1.32E-05	6.65E-05	2.30E-05	2.11E-05	2.64E-04
2035	5	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	10	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	15	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	20	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	25	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	30	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	35	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	40	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	45	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	50	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	55	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	60	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	65	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	70	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	75	AUTO	Natural Gas	--	--	--	--	--	--	--
2035	5	LHDT	Gasoline	1.28E-02	6.52E-03	4.49E-03	1.63E-03	4.09E-03	3.76E-03	7.53E-02
2035	10	LHDT	Gasoline	1.43E-02	6.52E-03	5.01E-03	1.63E-03	2.61E-03	2.40E-03	5.73E-02
2035	15	LHDT	Gasoline	1.58E-02	6.52E-03	5.53E-03	1.63E-03	1.76E-03	1.62E-03	4.68E-02
2035	20	LHDT	Gasoline	1.73E-02	6.52E-03	6.05E-03	1.63E-03	1.25E-03	1.15E-03	4.06E-02
2035	25	LHDT	Gasoline	1.79E-02	6.52E-03	6.27E-03	1.63E-03	9.39E-04	8.63E-04	3.67E-02
2035	30	LHDT	Gasoline	1.76E-02	6.52E-03	6.17E-03	1.63E-03	7.40E-04	6.81E-04	3.43E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2035	30	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG _fc1**	**PM2.5_FUG _fc2**	**PM2.5_FUG _fc3**	**PM2.5_FUG _fc4**	**PM2.5_FUG _fc5**	**PM2.5_FUG _fc6**	**PM2.5_FUG _fc7**	**PM2.5_FUG _fc8**	**PM2.5_FUG _fc9**
2035	30	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2035	35	LHDT	Gasoline	1.74E-02	6.52E-03	6.08E-03	1.63E-03	6.15E-04	5.65E-04	3.27E-02
2035	40	LHDT	Gasoline	1.61E-02	6.52E-03	5.64E-03	1.63E-03	5.38E-04	4.94E-04	3.17E-02
2035	45	LHDT	Gasoline	1.39E-02	6.52E-03	4.87E-03	1.63E-03	4.96E-04	4.56E-04	3.12E-02
2035	50	LHDT	Gasoline	1.17E-02	6.52E-03	4.09E-03	1.63E-03	4.83E-04	4.44E-04	3.10E-02
2035	55	LHDT	Gasoline	1.02E-02	6.52E-03	3.56E-03	1.63E-03	4.95E-04	4.56E-04	3.10E-02
2035	60	LHDT	Gasoline	2.65E-03	5.84E-03	9.26E-04	1.46E-03	4.49E-04	4.13E-04	2.42E-02
2035	65	LHDT	Gasoline	1.87E-03	5.84E-03	6.55E-04	1.46E-03	5.09E-04	4.68E-04	2.49E-02
2035	70	LHDT	Gasoline	1.87E-03	5.84E-03	6.55E-04	1.46E-03	5.53E-04	5.08E-04	2.54E-02
2035	75	LHDT	Gasoline	1.87E-03	5.84E-03	6.55E-04	1.46E-03	5.53E-04	5.08E-04	2.54E-02
2035	5	LHDT	Diesel	6.77E-03	1.05E-03	2.37E-03	2.63E-04	4.57E-03	4.37E-03	2.37E-02
2035	10	LHDT	Diesel	6.79E-03	1.05E-03	2.37E-03	2.63E-04	3.88E-03	3.71E-03	2.03E-02
2035	15	LHDT	Diesel	6.80E-03	1.05E-03	2.38E-03	2.63E-04	3.29E-03	3.15E-03	1.72E-02
2035	20	LHDT	Diesel	6.82E-03	1.05E-03	2.39E-03	2.63E-04	2.79E-03	2.67E-03	1.47E-02
2035	25	LHDT	Diesel	6.83E-03	1.05E-03	2.39E-03	2.63E-04	2.36E-03	2.26E-03	1.27E-02
2035	30	LHDT	Diesel	6.83E-03	1.05E-03	2.39E-03	2.63E-04	2.00E-03	1.92E-03	1.10E-02
2035	35	LHDT	Diesel	6.82E-03	1.05E-03	2.39E-03	2.63E-04	1.71E-03	1.64E-03	9.51E-03
2035	40	LHDT	Diesel	6.81E-03	1.05E-03	2.38E-03	2.63E-04	1.48E-03	1.41E-03	8.22E-03
2035	45	LHDT	Diesel	6.78E-03	1.05E-03	2.37E-03	2.63E-04	1.31E-03	1.25E-03	7.12E-03
2035	50	LHDT	Diesel	6.75E-03	1.05E-03	2.36E-03	2.63E-04	1.19E-03	1.14E-03	6.20E-03
2035	55	LHDT	Diesel	6.73E-03	1.05E-03	2.36E-03	2.63E-04	1.14E-03	1.09E-03	5.45E-03
2035	60	LHDT	Diesel	3.39E-05	7.30E-05	1.19E-05	1.82E-05	1.94E-05	1.86E-05	4.38E-05
2035	65	LHDT	Diesel	2.40E-05	7.30E-05	8.39E-06	1.82E-05	2.00E-05	1.91E-05	4.49E-05
2035	70	LHDT	Diesel	2.40E-05	7.30E-05	8.39E-06	1.82E-05	2.04E-05	1.95E-05	4.57E-05
2035	75	LHDT	Diesel	2.40E-05	7.30E-05	8.39E-06	1.82E-05	2.04E-05	1.95E-05	4.57E-05
2035	5	LHDT	Electricity	2.04E-03	6.12E-04	7.15E-04	1.53E-04	--	--	--
2035	10	LHDT	Electricity	2.07E-03	6.12E-04	7.25E-04	1.53E-04	--	--	--
2035	15	LHDT	Electricity	2.10E-03	6.12E-04	7.34E-04	1.53E-04	--	--	--
2035	20	LHDT	Electricity	2.13E-03	6.12E-04	7.44E-04	1.53E-04	--	--	--
2035	25	LHDT	Electricity	2.14E-03	6.12E-04	7.49E-04	1.53E-04	--	--	--
2035	30	LHDT	Electricity	2.15E-03	6.12E-04	7.51E-04	1.53E-04	--	--	--
2035	35	LHDT	Electricity	2.15E-03	6.12E-04	7.53E-04	1.53E-04	--	--	--
2035	40	LHDT	Electricity	2.14E-03	6.12E-04	7.49E-04	1.53E-04	--	--	--
2035	45	LHDT	Electricity	2.11E-03	6.12E-04	7.40E-04	1.53E-04	--	--	--
2035	50	LHDT	Electricity	2.09E-03	6.12E-04	7.30E-04	1.53E-04	--	--	--
2035	55	LHDT	Electricity	2.07E-03	6.12E-04	7.23E-04	1.53E-04	--	--	--
2035	60	LHDT	Electricity	4.41E-05	2.14E-04	1.54E-05	5.35E-05	--	--	--
2035	65	LHDT	Electricity	3.03E-05	2.14E-04	1.06E-05	5.35E-05	--	--	--
2035	70	LHDT	Electricity	3.03E-05	2.14E-04	1.06E-05	5.35E-05	--	--	--
2035	75	LHDT	Electricity	--	--	--	--	--	--	--
2035	5	LHDT	Plug-in Hybrid	2.43E-05	1.46E-04	8.52E-06	3.65E-05	3.89E-05	3.58E-05	4.03E-04
2035	10	LHDT	Plug-in Hybrid	4.30E-05	1.46E-04	1.51E-05	3.65E-05	1.42E-05	1.30E-05	1.58E-04
2035	15	LHDT	Plug-in Hybrid	6.18E-05	1.46E-04	2.16E-05	3.65E-05	5.77E-06	5.31E-06	1.02E-04
2035	20	LHDT	Plug-in Hybrid	8.05E-05	1.46E-04	2.82E-05	3.65E-05	4.50E-06	4.14E-06	9.53E-05
2035	25	LHDT	Plug-in Hybrid	9.16E-05	1.46E-04	3.21E-05	3.65E-05	2.98E-06	2.74E-06	8.63E-05
2035	30	LHDT	Plug-in Hybrid	9.51E-05	1.46E-04	3.33E-05	3.65E-05	3.60E-06	3.31E-06	9.23E-05
2035	35	LHDT	Plug-in Hybrid	9.87E-05	1.46E-04	3.45E-05	3.65E-05	4.09E-06	3.76E-06	9.71E-05
2035	40	LHDT	Plug-in Hybrid	9.11E-05	1.46E-04	3.19E-05	3.65E-05	4.36E-06	4.01E-06	9.93E-05
2035	45	LHDT	Plug-in Hybrid	7.24E-05	1.46E-04	2.53E-05	3.65E-05	5.66E-06	5.20E-06	1.08E-04
2035	50	LHDT	Plug-in Hybrid	5.37E-05	1.46E-04	1.88E-05	3.65E-05	6.81E-06	6.26E-06	1.13E-04
2035	55	LHDT	Plug-in Hybrid	3.96E-05	1.46E-04	1.39E-05	3.65E-05	7.90E-06	7.27E-06	1.15E-04
2035	60	LHDT	Plug-in Hybrid	3.01E-05	1.46E-04	1.05E-05	3.65E-05	9.25E-06	8.50E-06	1.14E-04
2035	65	LHDT	Plug-in Hybrid	2.07E-05	1.46E-04	7.24E-06	3.65E-05	1.07E-05	9.83E-06	1.11E-04
2035	70	LHDT	Plug-in Hybrid	2.07E-05	1.46E-04	7.24E-06	3.65E-05	1.16E-05	1.07E-05	1.07E-04
2035	75	LHDT	Plug-in Hybrid	2.07E-05	1.46E-04	7.24E-06	3.65E-05	1.16E-05	1.07E-05	1.08E-04
2035	5	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	10	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	15	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	20	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	25	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	30	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	35	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	40	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	45	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	50	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	55	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	60	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	65	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	70	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	75	LHDT	Natural Gas	--	--	--	--	--	--	--
2035	5	MHDT	Gasoline	8.61E-03	1.68E-03	3.01E-03	4.20E-04	1.06E-03	9.72E-04	3.25E-02
2035	10	MHDT	Gasoline	8.61E-03	1.68E-03	3.01E-03	4.20E-04	6.65E-04	6.12E-04	2.51E-02
2035	15	MHDT	Gasoline	8.61E-03	1.68E-03	3.01E-03	4.20E-04	4.42E-04	4.06E-04	2.09E-02
2035	20	MHDT	Gasoline	8.49E-03	1.68E-03	2.97E-03	4.20E-04	3.09E-04	2.84E-04	1.84E-02
2035	25	MHDT	Gasoline	6.97E-03	1.68E-03	2.44E-03	4.20E-04	2.28E-04	2.10E-04	1.68E-02
2035	30	MHDT	Gasoline	6.21E-03	1.68E-03	2.17E-03	4.20E-04	1.78E-04	1.64E-04	1.59E-02
2035	35	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.46E-04	1.35E-04	1.53E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2035	35	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2035	35	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2035	40	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.27E-04	1.17E-04	1.49E-02
2035	45	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.16E-04	1.07E-04	1.47E-02
2035	50	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.12E-04	1.03E-04	1.46E-02
2035	55	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.14E-04	1.05E-04	1.46E-02
2035	60	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.23E-04	1.13E-04	1.48E-02
2035	65	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.39E-04	1.28E-04	1.51E-02
2035	70	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.51E-04	1.39E-04	1.53E-02
2035	75	MHDT	Gasoline	5.82E-03	1.68E-03	2.04E-03	4.20E-04	1.51E-04	1.39E-04	1.53E-02
2035	5	MHDT	Diesel	3.63E-02	7.08E-03	1.27E-02	1.77E-03	1.01E-02	9.66E-03	9.31E-02
2035	10	MHDT	Diesel	3.63E-02	7.08E-03	1.27E-02	1.77E-03	4.96E-03	4.75E-03	4.12E-02
2035	15	MHDT	Diesel	3.63E-02	7.08E-03	1.27E-02	1.77E-03	3.02E-03	2.89E-03	1.92E-02
2035	20	MHDT	Diesel	3.58E-02	7.08E-03	1.25E-02	1.77E-03	2.06E-03	1.97E-03	1.15E-02
2035	25	MHDT	Diesel	2.94E-02	7.08E-03	1.03E-02	1.77E-03	1.68E-03	1.60E-03	9.31E-03
2035	30	MHDT	Diesel	2.62E-02	7.08E-03	9.17E-03	1.77E-03	1.50E-03	1.43E-03	8.04E-03
2035	35	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	1.50E-03	1.44E-03	7.14E-03
2035	40	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	1.72E-03	1.65E-03	6.68E-03
2035	45	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	2.14E-03	2.05E-03	6.61E-03
2035	50	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	2.68E-03	2.56E-03	6.70E-03
2035	55	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	3.37E-03	3.22E-03	7.07E-03
2035	60	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	4.14E-03	3.96E-03	7.66E-03
2035	65	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	4.98E-03	4.77E-03	8.37E-03
2035	70	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	4.89E-03	4.68E-03	8.25E-03
2035	75	MHDT	Diesel	2.45E-02	7.08E-03	8.59E-03	1.77E-03	4.84E-03	4.63E-03	8.21E-03
2035	5	MHDT	Electricity	8.00E-03	3.12E-03	2.80E-03	7.80E-04	--	--	--
2035	10	MHDT	Electricity	8.00E-03	3.12E-03	2.80E-03	7.80E-04	--	--	--
2035	15	MHDT	Electricity	8.00E-03	3.12E-03	2.80E-03	7.80E-04	--	--	--
2035	20	MHDT	Electricity	7.88E-03	3.12E-03	2.76E-03	7.80E-04	--	--	--
2035	25	MHDT	Electricity	6.48E-03	3.12E-03	2.27E-03	7.80E-04	--	--	--
2035	30	MHDT	Electricity	5.77E-03	3.12E-03	2.02E-03	7.80E-04	--	--	--
2035	35	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	40	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	45	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	50	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	55	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	60	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	65	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	70	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	75	MHDT	Electricity	5.41E-03	3.12E-03	1.89E-03	7.80E-04	--	--	--
2035	5	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	10	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	15	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	20	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	25	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	30	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	35	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	40	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	45	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	50	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	55	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	60	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	65	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	70	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	75	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	5	MHDT	Natural Gas	6.12E-04	1.19E-04	2.14E-04	2.99E-05	5.24E-05	4.82E-05	4.16E-02
2035	10	MHDT	Natural Gas	6.12E-04	1.19E-04	2.14E-04	2.99E-05	4.89E-05	4.50E-05	2.96E-02
2035	15	MHDT	Natural Gas	6.12E-04	1.19E-04	2.14E-04	2.99E-05	4.09E-05	3.76E-05	1.98E-02
2035	20	MHDT	Natural Gas	6.03E-04	1.19E-04	2.11E-04	2.99E-05	3.38E-05	3.11E-05	1.55E-02
2035	25	MHDT	Natural Gas	4.96E-04	1.19E-04	1.74E-04	2.99E-05	2.78E-05	2.55E-05	1.30E-02
2035	30	MHDT	Natural Gas	4.42E-04	1.19E-04	1.55E-04	2.99E-05	2.28E-05	2.10E-05	1.15E-02
2035	35	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.89E-05	1.74E-05	1.04E-02
2035	40	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.60E-05	1.47E-05	9.55E-03
2035	45	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.42E-05	1.31E-05	8.92E-03
2035	50	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.35E-05	1.24E-05	8.42E-03
2035	55	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.38E-05	1.27E-05	8.01E-03
2035	60	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.38E-05	1.27E-05	8.01E-03
2035	65	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.38E-05	1.27E-05	8.02E-03
2035	70	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.38E-05	1.27E-05	8.02E-03
2035	75	MHDT	Natural Gas	4.14E-04	1.19E-04	1.45E-04	2.99E-05	1.38E-05	1.27E-05	8.01E-03
2035	5	HHDT	Gasoline	2.82E-05	3.85E-06	9.85E-06	9.62E-07	1.48E-06	1.36E-06	6.35E-04
2035	10	HHDT	Gasoline	2.82E-05	3.85E-06	9.85E-06	9.62E-07	9.33E-07	8.57E-07	4.01E-04
2035	15	HHDT	Gasoline	2.78E-05	3.85E-06	9.72E-06	9.62E-07	6.19E-07	5.69E-07	2.69E-04
2035	20	HHDT	Gasoline	2.72E-05	3.85E-06	9.51E-06	9.62E-07	4.33E-07	3.99E-07	1.89E-04
2035	25	HHDT	Gasoline	2.66E-05	3.85E-06	9.30E-06	9.62E-07	3.20E-07	2.94E-07	1.41E-04
2035	30	HHDT	Gasoline	2.62E-05	3.85E-06	9.17E-06	9.62E-07	2.50E-07	2.29E-07	1.11E-04
2035	35	HHDT	Gasoline	2.22E-05	3.85E-06	7.76E-06	9.62E-07	2.05E-07	1.89E-07	9.20E-05
2035	40	HHDT	Gasoline	1.93E-05	3.85E-06	6.74E-06	9.62E-07	1.78E-07	1.64E-07	8.03E-05

SANDAG Air Quality Modeling Inputs

Final EMFAC Table
Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2035	40	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs
Final EMFAC Table
Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2035	40	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2035	45	HHDT	Gasoline	1.64E-05	3.85E-06	5.72E-06	9.62E-07	1.63E-07	1.50E-07	7.38E-05
2035	50	HHDT	Gasoline	1.43E-05	3.85E-06	4.99E-06	9.62E-07	1.57E-07	1.45E-07	7.14E-05
2035	55	HHDT	Gasoline	1.43E-05	3.85E-06	4.99E-06	9.62E-07	1.60E-07	1.47E-07	7.27E-05
2035	60	HHDT	Gasoline	1.43E-05	3.85E-06	4.99E-06	9.62E-07	1.72E-07	1.58E-07	7.77E-05
2035	65	HHDT	Gasoline	1.43E-05	3.85E-06	4.99E-06	9.62E-07	1.95E-07	1.79E-07	8.76E-05
2035	70	HHDT	Gasoline	1.43E-05	3.85E-06	4.99E-06	9.62E-07	2.12E-07	1.95E-07	9.44E-05
2035	75	HHDT	Gasoline	1.43E-05	3.85E-06	4.99E-06	9.62E-07	2.12E-07	1.95E-07	9.42E-05
2035	5	HHDT	Diesel	1.29E-01	3.05E-02	4.50E-02	7.64E-03	2.99E-02	2.87E-02	3.37E-01
2035	10	HHDT	Diesel	1.29E-01	3.05E-02	4.50E-02	7.64E-03	1.12E-02	1.07E-02	1.33E-01
2035	15	HHDT	Diesel	1.27E-01	3.05E-02	4.44E-02	7.64E-03	6.83E-03	6.54E-03	7.80E-02
2035	20	HHDT	Diesel	7.10E-02	3.05E-02	2.48E-02	7.64E-03	4.74E-03	4.54E-03	6.17E-02
2035	25	HHDT	Diesel	1.21E-01	3.05E-02	4.23E-02	7.64E-03	4.79E-03	4.59E-03	5.93E-02
2035	30	HHDT	Diesel	1.19E-01	3.05E-02	4.17E-02	7.64E-03	4.94E-03	4.72E-03	5.72E-02
2035	35	HHDT	Diesel	1.01E-01	3.05E-02	3.55E-02	7.64E-03	5.70E-03	5.46E-03	5.47E-02
2035	40	HHDT	Diesel	8.84E-02	3.05E-02	3.09E-02	7.64E-03	7.25E-03	6.94E-03	5.28E-02
2035	45	HHDT	Diesel	7.53E-02	3.05E-02	2.63E-02	7.64E-03	9.63E-03	9.21E-03	5.19E-02
2035	50	HHDT	Diesel	6.57E-02	3.05E-02	2.30E-02	7.64E-03	1.29E-02	1.23E-02	5.14E-02
2035	55	HHDT	Diesel	6.50E-02	3.05E-02	2.28E-02	7.64E-03	1.72E-02	1.64E-02	5.19E-02
2035	60	HHDT	Diesel	6.46E-02	3.05E-02	2.26E-02	7.64E-03	2.29E-02	2.19E-02	5.32E-02
2035	65	HHDT	Diesel	6.47E-02	3.05E-02	2.26E-02	7.64E-03	2.91E-02	2.78E-02	5.52E-02
2035	70	HHDT	Diesel	6.49E-02	3.05E-02	2.27E-02	7.64E-03	3.01E-02	2.88E-02	5.53E-02
2035	75	HHDT	Diesel	6.48E-02	3.05E-02	2.27E-02	7.64E-03	3.00E-02	2.87E-02	5.53E-02
2035	5	HHDT	Electricity	7.98E-03	3.65E-03	2.79E-03	9.12E-04	--	--	--
2035	10	HHDT	Electricity	8.58E-03	3.65E-03	3.00E-03	9.12E-04	--	--	--
2035	15	HHDT	Electricity	8.57E-03	3.65E-03	3.00E-03	9.12E-04	--	--	--
2035	20	HHDT	Electricity	3.22E-03	3.65E-03	1.13E-03	9.12E-04	--	--	--
2035	25	HHDT	Electricity	8.11E-03	3.65E-03	2.84E-03	9.12E-04	--	--	--
2035	30	HHDT	Electricity	7.97E-03	3.65E-03	2.79E-03	9.12E-04	--	--	--
2035	35	HHDT	Electricity	6.95E-03	3.65E-03	2.43E-03	9.12E-04	--	--	--
2035	40	HHDT	Electricity	6.16E-03	3.65E-03	2.16E-03	9.12E-04	--	--	--
2035	45	HHDT	Electricity	5.37E-03	3.65E-03	1.88E-03	9.12E-04	--	--	--
2035	50	HHDT	Electricity	4.77E-03	3.65E-03	1.67E-03	9.12E-04	--	--	--
2035	55	HHDT	Electricity	4.53E-03	3.65E-03	1.59E-03	9.12E-04	--	--	--
2035	60	HHDT	Electricity	4.26E-03	3.65E-03	1.49E-03	9.12E-04	--	--	--
2035	65	HHDT	Electricity	4.21E-03	3.65E-03	1.47E-03	9.12E-04	--	--	--
2035	70	HHDT	Electricity	4.11E-03	3.65E-03	1.44E-03	9.12E-04	--	--	--
2035	75	HHDT	Electricity	4.05E-03	3.65E-03	1.42E-03	9.12E-04	--	--	--
2035	5	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	10	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	15	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	20	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	25	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	30	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	35	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	40	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	45	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	50	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	55	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	60	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	65	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	70	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	75	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2035	5	HHDT	Natural Gas	4.68E-03	1.18E-03	1.64E-03	2.95E-04	3.22E-04	2.96E-04	2.55E-01
2035	10	HHDT	Natural Gas	6.72E-03	1.18E-03	2.35E-03	2.95E-04	1.88E-04	1.72E-04	1.39E-01
2035	15	HHDT	Natural Gas	6.73E-03	1.18E-03	2.35E-03	2.95E-04	1.41E-04	1.29E-04	8.30E-02
2035	20	HHDT	Natural Gas	6.72E-03	1.18E-03	2.35E-03	2.95E-04	1.06E-04	9.70E-05	5.71E-02
2035	25	HHDT	Natural Gas	6.66E-03	1.18E-03	2.33E-03	2.95E-04	8.56E-05	7.87E-05	4.61E-02
2035	30	HHDT	Natural Gas	6.61E-03	1.18E-03	2.31E-03	2.95E-04	7.02E-05	6.45E-05	3.93E-02
2035	35	HHDT	Natural Gas	6.51E-03	1.18E-03	2.28E-03	2.95E-04	5.79E-05	5.33E-05	3.45E-02
2035	40	HHDT	Natural Gas	6.41E-03	1.18E-03	2.24E-03	2.95E-04	4.94E-05	4.54E-05	3.10E-02
2035	45	HHDT	Natural Gas	6.30E-03	1.18E-03	2.21E-03	2.95E-04	4.47E-05	4.11E-05	2.84E-02
2035	50	HHDT	Natural Gas	6.17E-03	1.18E-03	2.16E-03	2.95E-04	4.40E-05	4.04E-05	2.66E-02
2035	55	HHDT	Natural Gas	5.89E-03	1.18E-03	2.06E-03	2.95E-04	4.80E-05	4.41E-05	2.59E-02
2035	60	HHDT	Natural Gas	5.26E-03	1.18E-03	1.84E-03	2.95E-04	5.15E-05	4.73E-05	2.76E-02
2035	65	HHDT	Natural Gas	4.79E-03	1.18E-03	1.68E-03	2.95E-04	5.28E-05	4.85E-05	2.87E-02
2035	70	HHDT	Natural Gas	4.38E-03	1.18E-03	1.53E-03	2.95E-04	5.42E-05	4.98E-05	2.97E-02
2035	75	HHDT	Natural Gas	2.61E-03	1.18E-03	9.15E-04	2.95E-04	5.96E-05	5.48E-05	3.40E-02
2035	5	BUS	Gasoline	1.05E-02	1.92E-03	3.68E-03	4.79E-04	7.78E-04	7.15E-04	5.98E-02
2035	10	BUS	Gasoline	1.35E-02	1.92E-03	4.73E-03	4.79E-04	7.06E-04	6.49E-04	5.10E-02
2035	15	BUS	Gasoline	1.35E-02	1.92E-03	4.73E-03	4.79E-04	4.88E-04	4.49E-04	4.30E-02
2035	20	BUS	Gasoline	1.34E-02	1.92E-03	4.68E-03	4.79E-04	3.55E-04	3.26E-04	3.82E-02
2035	25	BUS	Gasoline	1.19E-02	1.92E-03	4.16E-03	4.79E-04	2.71E-04	2.49E-04	3.52E-02
2035	30	BUS	Gasoline	1.11E-02	1.92E-03	3.90E-03	4.79E-04	2.17E-04	2.00E-04	3.34E-02
2035	35	BUS	Gasoline	1.08E-02	1.92E-03	3.78E-03	4.79E-04	1.83E-04	1.68E-04	3.23E-02
2035	40	BUS	Gasoline	1.10E-02	1.92E-03	3.85E-03	4.79E-04	1.63E-04	1.49E-04	3.16E-02
2035	45	BUS	Gasoline	1.08E-02	1.92E-03	3.79E-03	4.79E-04	1.51E-04	1.39E-04	3.11E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2035	45	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2035	45	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2035	50	BUS	Gasoline	1.07E-02	1.92E-03	3.76E-03	4.79E-04	1.48E-04	1.36E-04	3.09E-02
2035	55	BUS	Gasoline	1.07E-02	1.92E-03	3.76E-03	4.79E-04	1.54E-04	1.41E-04	3.10E-02
2035	60	BUS	Gasoline	1.18E-02	1.92E-03	4.11E-03	4.79E-04	1.60E-04	1.47E-04	3.19E-02
2035	65	BUS	Gasoline	1.18E-02	1.92E-03	4.11E-03	4.79E-04	1.82E-04	1.67E-04	3.26E-02
2035	70	BUS	Gasoline	1.18E-02	1.92E-03	4.11E-03	4.79E-04	1.97E-04	1.81E-04	3.31E-02
2035	75	BUS	Gasoline	1.18E-02	1.92E-03	4.11E-03	4.79E-04	1.97E-04	1.81E-04	3.31E-02
2035	5	BUS	Diesel	9.19E-03	1.79E-03	3.22E-03	4.49E-04	1.37E-02	1.31E-02	9.42E-02
2035	10	BUS	Diesel	1.66E-02	3.05E-03	5.80E-03	7.62E-04	1.24E-02	1.18E-02	8.58E-02
2035	15	BUS	Diesel	1.76E-02	3.05E-03	6.17E-03	7.62E-04	7.73E-03	7.39E-03	4.38E-02
2035	20	BUS	Diesel	1.75E-02	3.05E-03	6.11E-03	7.62E-04	5.15E-03	4.93E-03	2.40E-02
2035	25	BUS	Diesel	1.44E-02	3.05E-03	5.04E-03	7.62E-04	4.23E-03	4.05E-03	1.89E-02
2035	30	BUS	Diesel	1.27E-02	3.05E-03	4.44E-03	7.62E-04	3.75E-03	3.59E-03	1.60E-02
2035	35	BUS	Diesel	1.13E-02	3.05E-03	3.95E-03	7.62E-04	3.52E-03	3.37E-03	1.38E-02
2035	40	BUS	Diesel	1.12E-02	3.05E-03	3.93E-03	7.62E-04	3.46E-03	3.31E-03	1.20E-02
2035	45	BUS	Diesel	1.14E-02	3.05E-03	3.97E-03	7.62E-04	3.64E-03	3.48E-03	1.08E-02
2035	50	BUS	Diesel	1.23E-02	3.05E-03	4.32E-03	7.62E-04	3.93E-03	3.76E-03	9.44E-03
2035	55	BUS	Diesel	1.44E-02	3.05E-03	5.04E-03	7.62E-04	4.42E-03	4.23E-03	7.88E-03
2035	60	BUS	Diesel	1.54E-02	3.05E-03	5.39E-03	7.62E-04	5.28E-03	5.05E-03	7.36E-03
2035	65	BUS	Diesel	1.54E-02	3.05E-03	5.40E-03	7.62E-04	6.42E-03	6.14E-03	7.88E-03
2035	70	BUS	Diesel	1.54E-02	3.05E-03	5.40E-03	7.62E-04	6.42E-03	6.14E-03	7.89E-03
2035	75	BUS	Diesel	1.54E-02	3.05E-03	5.40E-03	7.62E-04	6.42E-03	6.14E-03	7.89E-03
2035	5	BUS	Electricity	1.08E-03	8.57E-04	3.77E-04	2.14E-04	--	--	--
2035	10	BUS	Electricity	1.70E-02	1.03E-02	5.94E-03	2.58E-03	--	--	--
2035	15	BUS	Electricity	1.70E-02	1.03E-02	5.94E-03	2.58E-03	--	--	--
2035	20	BUS	Electricity	1.69E-02	1.03E-02	5.93E-03	2.58E-03	--	--	--
2035	25	BUS	Electricity	1.65E-02	1.03E-02	5.79E-03	2.58E-03	--	--	--
2035	30	BUS	Electricity	1.63E-02	1.03E-02	5.72E-03	2.58E-03	--	--	--
2035	35	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	40	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	45	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	50	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	55	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	60	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	65	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	70	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	75	BUS	Electricity	1.62E-02	1.03E-02	5.68E-03	2.58E-03	--	--	--
2035	5	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	10	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	15	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	20	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	25	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	30	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	35	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	40	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	45	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	50	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	55	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	60	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	65	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	70	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	75	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2035	5	BUS	Natural Gas	9.43E-04	7.09E-03	3.30E-04	1.77E-03	6.60E-05	6.07E-05	6.03E-02
2035	10	BUS	Natural Gas	2.23E-02	7.11E-03	7.81E-03	1.78E-03	2.47E-04	2.33E-04	1.10E+00
2035	15	BUS	Natural Gas	2.23E-02	7.11E-03	7.81E-03	1.78E-03	2.02E-04	1.90E-04	1.02E+00
2035	20	BUS	Natural Gas	2.23E-02	7.11E-03	7.81E-03	1.78E-03	1.62E-04	1.53E-04	9.69E-01
2035	25	BUS	Natural Gas	2.21E-02	7.11E-03	7.74E-03	1.78E-03	1.28E-04	1.21E-04	9.37E-01
2035	30	BUS	Natural Gas	2.20E-02	7.11E-03	7.71E-03	1.78E-03	1.00E-04	9.46E-05	9.12E-01
2035	35	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	7.82E-05	7.38E-05	8.93E-01
2035	40	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	6.22E-05	5.86E-05	8.77E-01
2035	45	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	5.20E-05	4.91E-05	8.64E-01
2035	50	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	5.06E-05	4.78E-05	8.63E-01
2035	55	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	5.12E-05	4.83E-05	8.62E-01
2035	60	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	5.12E-05	4.83E-05	8.62E-01
2035	65	BUS	Natural Gas	2.20E-02	7.11E-03	7.69E-03	1.78E-03	5.12E-05	4.83E-05	8.62E-01
2035	70	BUS	Natural Gas	2.13E-02	6.93E-03	7.47E-03	1.73E-03	3.85E-05	3.67E-05	8.54E-01
2035	75	BUS	Natural Gas	2.13E-02	6.93E-03	7.47E-03	1.73E-03	3.85E-05	3.67E-05	8.54E-01
2050	5	AUTO	Gasoline	5.95E-03	6.96E-03	2.08E-03	1.74E-03	3.06E-03	2.82E-03	7.91E-02
2050	10	AUTO	Gasoline	7.36E-03	6.96E-03	2.58E-03	1.74E-03	1.93E-03	1.77E-03	5.74E-02
2050	15	AUTO	Gasoline	8.77E-03	6.96E-03	3.07E-03	1.74E-03	1.28E-03	1.18E-03	4.49E-02
2050	20	AUTO	Gasoline	1.02E-02	6.96E-03	3.56E-03	1.74E-03	8.96E-04	8.24E-04	3.76E-02
2050	25	AUTO	Gasoline	1.11E-02	6.96E-03	3.87E-03	1.74E-03	6.62E-04	6.09E-04	3.31E-02
2050	30	AUTO	Gasoline	1.15E-02	6.96E-03	4.01E-03	1.74E-03	5.16E-04	4.74E-04	3.03E-02
2050	35	AUTO	Gasoline	1.18E-02	6.96E-03	4.15E-03	1.74E-03	4.24E-04	3.90E-04	2.86E-02
2050	40	AUTO	Gasoline	1.07E-02	6.96E-03	3.74E-03	1.74E-03	3.68E-04	3.38E-04	2.75E-02
2050	45	AUTO	Gasoline	7.99E-03	6.96E-03	2.80E-03	1.74E-03	3.36E-04	3.09E-04	2.69E-02
2050	50	AUTO	Gasoline	5.29E-03	6.96E-03	1.85E-03	1.74E-03	3.25E-04	2.99E-04	2.67E-02

SANDAG Air Quality Modeling Inputs
Final EMFAC Table
Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2035	50	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	5	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	10	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	15	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	20	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	25	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	30	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	35	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	40	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	45	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	50	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	55	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	60	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	65	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	70	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2035	75	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table
Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG _fc1**	**PM2.5_FUG _fc2**	**PM2.5_FUG _fc3**	**PM2.5_FUG _fc4**	**PM2.5_FUG _fc5**	**PM2.5_FUG _fc6**	**PM2.5_FUG _fc7**	**PM2.5_FUG _fc8**	**PM2.5_FUG _fc9**
2035	50	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	5	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	10	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	15	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	20	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	25	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	30	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	35	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	40	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	45	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	50	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	55	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	60	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	65	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	70	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2035	75	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2050	55	AUTO	Gasoline	3.54E-03	6.96E-03	1.24E-03	1.74E-03	3.31E-04	3.04E-04	2.68E-02
2050	60	AUTO	Gasoline	2.74E-03	6.96E-03	9.60E-04	1.74E-03	3.55E-04	3.27E-04	2.73E-02
2050	65	AUTO	Gasoline	1.94E-03	6.96E-03	6.81E-04	1.74E-03	4.03E-04	3.70E-04	2.81E-02
2050	70	AUTO	Gasoline	1.94E-03	6.96E-03	6.81E-04	1.74E-03	4.37E-04	4.02E-04	2.88E-02
2050	75	AUTO	Gasoline	1.94E-03	6.96E-03	6.81E-04	1.74E-03	4.37E-04	4.02E-04	2.88E-02
2050	5	AUTO	Diesel	3.07E-05	1.63E-05	1.07E-05	4.09E-06	2.27E-05	2.18E-05	6.48E-04
2050	10	AUTO	Diesel	3.33E-05	1.63E-05	1.17E-05	4.09E-06	2.14E-05	2.04E-05	4.85E-04
2050	15	AUTO	Diesel	3.59E-05	1.63E-05	1.26E-05	4.09E-06	1.87E-05	1.79E-05	2.37E-04
2050	20	AUTO	Diesel	3.82E-05	1.63E-05	1.34E-05	4.09E-06	1.60E-05	1.53E-05	9.23E-05
2050	25	AUTO	Diesel	3.60E-05	1.63E-05	1.26E-05	4.09E-06	1.38E-05	1.32E-05	5.56E-05
2050	30	AUTO	Diesel	3.41E-05	1.63E-05	1.19E-05	4.09E-06	1.23E-05	1.17E-05	4.21E-05
2050	35	AUTO	Diesel	3.31E-05	1.63E-05	1.16E-05	4.09E-06	1.12E-05	1.07E-05	3.35E-05
2050	40	AUTO	Diesel	3.10E-05	1.63E-05	1.08E-05	4.09E-06	1.04E-05	9.95E-06	2.77E-05
2050	45	AUTO	Diesel	2.67E-05	1.63E-05	9.35E-06	4.09E-06	9.79E-06	9.37E-06	2.34E-05
2050	50	AUTO	Diesel	2.25E-05	1.63E-05	7.86E-06	4.09E-06	9.34E-06	8.93E-06	2.03E-05
2050	55	AUTO	Diesel	1.97E-05	1.63E-05	6.88E-06	4.09E-06	9.01E-06	8.62E-06	1.78E-05
2050	60	AUTO	Diesel	1.83E-05	1.63E-05	6.39E-06	4.09E-06	8.98E-06	8.59E-06	1.68E-05
2050	65	AUTO	Diesel	1.69E-05	1.63E-05	5.90E-06	4.09E-06	9.20E-06	8.80E-06	1.68E-05
2050	70	AUTO	Diesel	1.69E-05	1.63E-05	5.90E-06	4.09E-06	9.45E-06	9.04E-06	1.68E-05
2050	75	AUTO	Diesel	1.69E-05	1.63E-05	5.90E-06	4.09E-06	9.45E-06	9.04E-06	1.68E-05
2050	5	AUTO	Electricity	1.21E-04	7.26E-04	4.24E-05	1.82E-04	--	--	--
2050	10	AUTO	Electricity	2.14E-04	7.26E-04	7.49E-05	1.82E-04	--	--	--
2050	15	AUTO	Electricity	3.07E-04	7.26E-04	1.08E-04	1.82E-04	--	--	--
2050	20	AUTO	Electricity	4.01E-04	7.26E-04	1.40E-04	1.82E-04	--	--	--
2050	25	AUTO	Electricity	4.56E-04	7.26E-04	1.60E-04	1.82E-04	--	--	--
2050	30	AUTO	Electricity	4.73E-04	7.26E-04	1.66E-04	1.82E-04	--	--	--
2050	35	AUTO	Electricity	4.91E-04	7.26E-04	1.72E-04	1.82E-04	--	--	--
2050	40	AUTO	Electricity	4.53E-04	7.26E-04	1.59E-04	1.82E-04	--	--	--
2050	45	AUTO	Electricity	3.60E-04	7.26E-04	1.26E-04	1.82E-04	--	--	--
2050	50	AUTO	Electricity	2.67E-04	7.26E-04	9.35E-05	1.82E-04	--	--	--
2050	55	AUTO	Electricity	1.97E-04	7.26E-04	6.90E-05	1.82E-04	--	--	--
2050	60	AUTO	Electricity	1.50E-04	7.26E-04	5.24E-05	1.82E-04	--	--	--
2050	65	AUTO	Electricity	1.03E-04	7.26E-04	3.60E-05	1.82E-04	--	--	--
2050	70	AUTO	Electricity	1.03E-04	7.26E-04	3.60E-05	1.82E-04	--	--	--
2050	75	AUTO	Electricity	--	--	--	--	--	--	--
2050	5	AUTO	Plug-in Hybrid	4.68E-05	2.81E-04	1.64E-05	7.02E-05	5.50E-05	5.05E-05	8.88E-04
2050	10	AUTO	Plug-in Hybrid	8.28E-05	2.81E-04	2.90E-05	7.02E-05	1.97E-05	1.81E-05	4.34E-04
2050	15	AUTO	Plug-in Hybrid	1.19E-04	2.81E-04	4.16E-05	7.02E-05	8.02E-06	7.38E-06	3.31E-04
2050	20	AUTO	Plug-in Hybrid	1.55E-04	2.81E-04	5.42E-05	7.02E-05	6.24E-06	5.74E-06	3.19E-04
2050	25	AUTO	Plug-in Hybrid	1.76E-04	2.81E-04	6.17E-05	7.02E-05	3.90E-06	3.58E-06	3.00E-04
2050	30	AUTO	Plug-in Hybrid	1.83E-04	2.81E-04	6.40E-05	7.02E-05	4.95E-06	4.55E-06	3.13E-04
2050	35	AUTO	Plug-in Hybrid	1.90E-04	2.81E-04	6.64E-05	7.02E-05	5.99E-06	5.51E-06	3.26E-04
2050	40	AUTO	Plug-in Hybrid	1.75E-04	2.81E-04	6.13E-05	7.02E-05	6.39E-06	5.88E-06	3.30E-04
2050	45	AUTO	Plug-in Hybrid	1.39E-04	2.81E-04	4.87E-05	7.02E-05	8.07E-06	7.42E-06	3.44E-04
2050	50	AUTO	Plug-in Hybrid	1.03E-04	2.81E-04	3.62E-05	7.02E-05	9.88E-06	9.09E-06	3.55E-04
2050	55	AUTO	Plug-in Hybrid	7.62E-05	2.81E-04	2.67E-05	7.02E-05	1.16E-05	1.07E-05	3.59E-04
2050	60	AUTO	Plug-in Hybrid	5.79E-05	2.81E-04	2.03E-05	7.02E-05	1.36E-05	1.25E-05	3.58E-04
2050	65	AUTO	Plug-in Hybrid	3.98E-05	2.81E-04	1.39E-05	7.02E-05	1.57E-05	1.45E-05	3.52E-04
2050	70	AUTO	Plug-in Hybrid	3.98E-05	2.81E-04	1.39E-05	7.02E-05	1.71E-05	1.57E-05	3.46E-04
2050	75	AUTO	Plug-in Hybrid	3.98E-05	2.81E-04	1.39E-05	7.02E-05	1.71E-05	1.57E-05	3.46E-04
2050	5	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	10	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	15	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	20	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	25	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	30	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	35	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	40	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	45	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	50	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	55	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	60	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	65	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	70	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	75	AUTO	Natural Gas	--	--	--	--	--	--	--
2050	5	LHDT	Gasoline	1.04E-02	6.18E-03	3.64E-03	1.55E-03	2.62E-03	2.41E-03	4.88E-02
2050	10	LHDT	Gasoline	1.19E-02	6.18E-03	4.15E-03	1.55E-03	1.68E-03	1.54E-03	3.77E-02
2050	15	LHDT	Gasoline	1.33E-02	6.18E-03	4.67E-03	1.55E-03	1.13E-03	1.04E-03	3.14E-02
2050	20	LHDT	Gasoline	1.48E-02	6.18E-03	5.17E-03	1.55E-03	8.06E-04	7.42E-04	2.76E-02
2050	25	LHDT	Gasoline	1.54E-02	6.18E-03	5.38E-03	1.55E-03	6.05E-04	5.56E-04	2.53E-02
2050	30	LHDT	Gasoline	1.51E-02	6.18E-03	5.29E-03	1.55E-03	4.77E-04	4.39E-04	2.38E-02
2050	35	LHDT	Gasoline	1.49E-02	6.18E-03	5.20E-03	1.55E-03	3.97E-04	3.65E-04	2.28E-02
2050	40	LHDT	Gasoline	1.36E-02	6.18E-03	4.77E-03	1.55E-03	3.47E-04	3.19E-04	2.23E-02
2050	45	LHDT	Gasoline	1.15E-02	6.18E-03	4.01E-03	1.55E-03	3.21E-04	2.95E-04	2.19E-02
2050	50	LHDT	Gasoline	9.28E-03	6.18E-03	3.25E-03	1.55E-03	3.13E-04	2.87E-04	2.18E-02
2050	55	LHDT	Gasoline	7.81E-03	6.18E-03	2.73E-03	1.55E-03	3.21E-04	2.95E-04	2.19E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2050	55	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	AUTO	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	AUTO	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	AUTO	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	AUTO	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	AUTO	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2050	55	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	AUTO	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	AUTO	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	AUTO	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	AUTO	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	AUTO	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table
Criteria Pollutants (g/mi)

Silt Loading: ---->
Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2050	60	LHDT	Gasoline	2.59E-03	5.73E-03	9.08E-04	1.43E-03	2.90E-04	2.66E-04	1.76E-02
2050	65	LHDT	Gasoline	1.83E-03	5.73E-03	6.42E-04	1.43E-03	3.28E-04	3.02E-04	1.80E-02
2050	70	LHDT	Gasoline	1.83E-03	5.73E-03	6.42E-04	1.43E-03	3.57E-04	3.28E-04	1.84E-02
2050	75	LHDT	Gasoline	1.83E-03	5.73E-03	6.42E-04	1.43E-03	3.57E-04	3.28E-04	1.84E-02
2050	5	LHDT	Diesel	4.61E-03	7.26E-04	1.61E-03	1.81E-04	2.07E-03	1.98E-03	1.07E-02
2050	10	LHDT	Diesel	4.62E-03	7.26E-04	1.62E-03	1.81E-04	1.81E-03	1.73E-03	9.59E-03
2050	15	LHDT	Diesel	4.64E-03	7.26E-04	1.62E-03	1.81E-04	1.57E-03	1.51E-03	8.41E-03
2050	20	LHDT	Diesel	4.66E-03	7.26E-04	1.63E-03	1.81E-04	1.36E-03	1.30E-03	7.40E-03
2050	25	LHDT	Diesel	4.66E-03	7.26E-04	1.63E-03	1.81E-04	1.18E-03	1.12E-03	6.57E-03
2050	30	LHDT	Diesel	4.66E-03	7.26E-04	1.63E-03	1.81E-04	1.01E-03	9.70E-04	5.81E-03
2050	35	LHDT	Diesel	4.66E-03	7.26E-04	1.63E-03	1.81E-04	8.77E-04	8.40E-04	5.11E-03
2050	40	LHDT	Diesel	4.64E-03	7.26E-04	1.62E-03	1.81E-04	7.66E-04	7.33E-04	4.46E-03
2050	45	LHDT	Diesel	4.62E-03	7.26E-04	1.62E-03	1.81E-04	6.80E-04	6.51E-04	3.86E-03
2050	50	LHDT	Diesel	4.59E-03	7.26E-04	1.61E-03	1.81E-04	6.19E-04	5.92E-04	3.31E-03
2050	55	LHDT	Diesel	4.58E-03	7.26E-04	1.60E-03	1.81E-04	5.83E-04	5.58E-04	2.81E-03
2050	60	LHDT	Diesel	2.83E-05	6.24E-05	9.92E-06	1.56E-05	5.57E-06	5.33E-06	2.10E-05
2050	65	LHDT	Diesel	2.00E-05	6.24E-05	7.01E-06	1.56E-05	5.62E-06	5.38E-06	2.11E-05
2050	70	LHDT	Diesel	2.00E-05	6.24E-05	7.01E-06	1.56E-05	5.65E-06	5.41E-06	2.11E-05
2050	75	LHDT	Diesel	2.00E-05	6.24E-05	7.01E-06	1.56E-05	5.65E-06	5.41E-06	2.11E-05
2050	5	LHDT	Electricity	4.42E-03	1.14E-03	1.55E-03	2.85E-04	--	--	--
2050	10	LHDT	Electricity	4.46E-03	1.14E-03	1.56E-03	2.85E-04	--	--	--
2050	15	LHDT	Electricity	4.49E-03	1.14E-03	1.57E-03	2.85E-04	--	--	--
2050	20	LHDT	Electricity	4.53E-03	1.14E-03	1.58E-03	2.85E-04	--	--	--
2050	25	LHDT	Electricity	4.55E-03	1.14E-03	1.59E-03	2.85E-04	--	--	--
2050	30	LHDT	Electricity	4.55E-03	1.14E-03	1.59E-03	2.85E-04	--	--	--
2050	35	LHDT	Electricity	4.56E-03	1.14E-03	1.60E-03	2.85E-04	--	--	--
2050	40	LHDT	Electricity	4.55E-03	1.14E-03	1.59E-03	2.85E-04	--	--	--
2050	45	LHDT	Electricity	4.51E-03	1.14E-03	1.58E-03	2.85E-04	--	--	--
2050	50	LHDT	Electricity	4.48E-03	1.14E-03	1.57E-03	2.85E-04	--	--	--
2050	55	LHDT	Electricity	4.45E-03	1.14E-03	1.56E-03	2.85E-04	--	--	--
2050	60	LHDT	Electricity	5.61E-05	2.71E-04	1.96E-05	6.78E-05	--	--	--
2050	65	LHDT	Electricity	3.85E-05	2.71E-04	1.35E-05	6.78E-05	--	--	--
2050	70	LHDT	Electricity	3.85E-05	2.71E-04	1.35E-05	6.78E-05	--	--	--
2050	75	LHDT	Electricity	--	--	--	--	--	--	--
2050	5	LHDT	Plug-in Hybrid	2.94E-05	1.76E-04	1.03E-05	4.41E-05	3.46E-05	3.18E-05	5.76E-04
2050	10	LHDT	Plug-in Hybrid	5.20E-05	1.76E-04	1.82E-05	4.41E-05	1.24E-05	1.14E-05	2.91E-04
2050	15	LHDT	Plug-in Hybrid	7.47E-05	1.76E-04	2.61E-05	4.41E-05	5.05E-06	4.65E-06	2.26E-04
2050	20	LHDT	Plug-in Hybrid	9.74E-05	1.76E-04	3.41E-05	4.41E-05	3.93E-06	3.61E-06	2.19E-04
2050	25	LHDT	Plug-in Hybrid	1.11E-04	1.76E-04	3.88E-05	4.41E-05	2.46E-06	2.26E-06	2.07E-04
2050	30	LHDT	Plug-in Hybrid	1.15E-04	1.76E-04	4.02E-05	4.41E-05	3.12E-06	2.87E-06	2.15E-04
2050	35	LHDT	Plug-in Hybrid	1.19E-04	1.76E-04	4.17E-05	4.41E-05	3.78E-06	3.47E-06	2.23E-04
2050	40	LHDT	Plug-in Hybrid	1.10E-04	1.76E-04	3.85E-05	4.41E-05	4.03E-06	3.70E-06	2.25E-04
2050	45	LHDT	Plug-in Hybrid	8.75E-05	1.76E-04	3.06E-05	4.41E-05	5.09E-06	4.68E-06	2.34E-04
2050	50	LHDT	Plug-in Hybrid	6.49E-05	1.76E-04	2.27E-05	4.41E-05	6.23E-06	5.73E-06	2.41E-04
2050	55	LHDT	Plug-in Hybrid	4.79E-05	1.76E-04	1.68E-05	4.41E-05	7.30E-06	6.71E-06	2.44E-04
2050	60	LHDT	Plug-in Hybrid	3.64E-05	1.76E-04	1.27E-05	4.41E-05	8.57E-06	7.88E-06	2.43E-04
2050	65	LHDT	Plug-in Hybrid	2.50E-05	1.76E-04	8.74E-06	4.41E-05	9.91E-06	9.11E-06	2.39E-04
2050	70	LHDT	Plug-in Hybrid	2.50E-05	1.76E-04	8.74E-06	4.41E-05	1.08E-05	9.91E-06	2.35E-04
2050	75	LHDT	Plug-in Hybrid	2.50E-05	1.76E-04	8.74E-06	4.41E-05	1.08E-05	9.92E-06	2.35E-04
2050	5	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	10	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	15	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	20	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	25	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	30	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	35	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	40	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	45	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	50	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	55	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	60	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	65	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	70	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	75	LHDT	Natural Gas	--	--	--	--	--	--	--
2050	5	MHDT	Gasoline	4.39E-03	8.57E-04	1.54E-03	2.14E-04	5.56E-04	5.11E-04	1.27E-02
2050	10	MHDT	Gasoline	4.39E-03	8.57E-04	1.54E-03	2.14E-04	3.50E-04	3.21E-04	1.06E-02
2050	15	MHDT	Gasoline	4.39E-03	8.57E-04	1.54E-03	2.14E-04	2.32E-04	2.13E-04	9.44E-03
2050	20	MHDT	Gasoline	4.33E-03	8.57E-04	1.51E-03	2.14E-04	1.62E-04	1.49E-04	8.73E-03
2050	25	MHDT	Gasoline	3.56E-03	8.57E-04	1.24E-03	2.14E-04	1.20E-04	1.10E-04	8.29E-03
2050	30	MHDT	Gasoline	3.17E-03	8.57E-04	1.11E-03	2.14E-04	9.35E-05	8.60E-05	8.02E-03
2050	35	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	7.69E-05	7.07E-05	7.85E-03
2050	40	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	6.67E-05	6.13E-05	7.75E-03
2050	45	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	6.10E-05	5.61E-05	7.69E-03
2050	50	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	5.89E-05	5.42E-05	7.67E-03
2050	55	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	6.00E-05	5.52E-05	7.68E-03
2050	60	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	6.45E-05	5.93E-05	7.72E-03

SANDAG Air Quality Modeling Inputs
Final EMFAC Table
Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2050	60	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	LHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	LHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	LHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	LHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	LHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2050	60	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	LHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	LHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	LHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	LHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	LHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2050	65	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	7.31E-05	6.72E-05	7.81E-03
2050	70	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	7.93E-05	7.30E-05	7.87E-03
2050	75	MHDT	Gasoline	2.97E-03	8.57E-04	1.04E-03	2.14E-04	7.93E-05	7.30E-05	7.87E-03
2050	5	MHDT	Diesel	2.41E-02	4.71E-03	8.44E-03	1.18E-03	1.57E-03	1.50E-03	2.92E-02
2050	10	MHDT	Diesel	2.41E-02	4.71E-03	8.44E-03	1.18E-03	1.26E-03	1.21E-03	1.64E-02
2050	15	MHDT	Diesel	2.41E-02	4.71E-03	8.44E-03	1.18E-03	9.15E-04	8.76E-04	8.00E-03
2050	20	MHDT	Diesel	2.38E-02	4.71E-03	8.33E-03	1.18E-03	7.41E-04	7.09E-04	5.34E-03
2050	25	MHDT	Diesel	1.95E-02	4.71E-03	6.84E-03	1.18E-03	6.19E-04	5.92E-04	4.48E-03
2050	30	MHDT	Diesel	1.74E-02	4.71E-03	6.10E-03	1.18E-03	5.74E-04	5.50E-04	3.97E-03
2050	35	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	6.17E-04	5.91E-04	3.63E-03
2050	40	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	7.47E-04	7.15E-04	3.43E-03
2050	45	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	9.60E-04	9.19E-04	3.38E-03
2050	50	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	1.26E-03	1.20E-03	3.48E-03
2050	55	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	1.64E-03	1.57E-03	3.73E-03
2050	60	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	2.12E-03	2.03E-03	4.15E-03
2050	65	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	2.71E-03	2.59E-03	4.73E-03
2050	70	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	2.70E-03	2.59E-03	4.72E-03
2050	75	MHDT	Diesel	1.63E-02	4.71E-03	5.71E-03	1.18E-03	2.69E-03	2.57E-03	4.70E-03
2050	5	MHDT	Electricity	1.63E-02	6.37E-03	5.71E-03	1.59E-03	--	--	--
2050	10	MHDT	Electricity	1.63E-02	6.37E-03	5.71E-03	1.59E-03	--	--	--
2050	15	MHDT	Electricity	1.63E-02	6.37E-03	5.71E-03	1.59E-03	--	--	--
2050	20	MHDT	Electricity	1.61E-02	6.37E-03	5.63E-03	1.59E-03	--	--	--
2050	25	MHDT	Electricity	1.32E-02	6.37E-03	4.63E-03	1.59E-03	--	--	--
2050	30	MHDT	Electricity	1.18E-02	6.37E-03	4.12E-03	1.59E-03	--	--	--
2050	35	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	40	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	45	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	50	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	55	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	60	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	65	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	70	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	75	MHDT	Electricity	1.10E-02	6.37E-03	3.86E-03	1.59E-03	--	--	--
2050	5	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	10	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	15	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	20	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	25	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	30	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	35	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	40	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	45	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	50	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	55	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	60	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	65	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	70	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	75	MHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	5	MHDT	Natural Gas	3.38E-04	6.60E-05	1.18E-04	1.65E-05	3.10E-05	2.85E-05	2.25E-02
2050	10	MHDT	Natural Gas	3.38E-04	6.60E-05	1.18E-04	1.65E-05	2.87E-05	2.64E-05	1.60E-02
2050	15	MHDT	Natural Gas	3.38E-04	6.60E-05	1.18E-04	1.65E-05	2.39E-05	2.20E-05	1.07E-02
2050	20	MHDT	Natural Gas	3.33E-04	6.60E-05	1.17E-04	1.65E-05	1.98E-05	1.82E-05	8.37E-03
2050	25	MHDT	Natural Gas	2.74E-04	6.60E-05	9.58E-05	1.65E-05	1.63E-05	1.50E-05	7.02E-03
2050	30	MHDT	Natural Gas	2.44E-04	6.60E-05	8.54E-05	1.65E-05	1.34E-05	1.23E-05	6.15E-03
2050	35	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	1.11E-05	1.02E-05	5.54E-03
2050	40	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	9.37E-06	8.62E-06	5.09E-03
2050	45	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	8.31E-06	7.64E-06	4.74E-03
2050	50	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	7.87E-06	7.23E-06	4.46E-03
2050	55	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	8.04E-06	7.39E-06	4.23E-03
2050	60	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	8.04E-06	7.40E-06	4.23E-03
2050	65	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	8.05E-06	7.40E-06	4.23E-03
2050	70	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	8.05E-06	7.40E-06	4.23E-03
2050	75	MHDT	Natural Gas	2.29E-04	6.60E-05	8.00E-05	1.65E-05	8.05E-06	7.40E-06	4.23E-03
2050	5	HHDT	Gasoline	1.31E-05	1.74E-06	4.60E-06	4.35E-07	6.79E-07	6.24E-07	2.74E-04
2050	10	HHDT	Gasoline	1.31E-05	1.74E-06	4.60E-06	4.35E-07	4.27E-07	3.93E-07	1.73E-04
2050	15	HHDT	Gasoline	1.30E-05	1.74E-06	4.54E-06	4.35E-07	2.83E-07	2.61E-07	1.16E-04
2050	20	HHDT	Gasoline	1.27E-05	1.74E-06	4.44E-06	4.35E-07	1.98E-07	1.82E-07	8.19E-05
2050	25	HHDT	Gasoline	1.24E-05	1.74E-06	4.34E-06	4.35E-07	1.47E-07	1.35E-07	6.11E-05
2050	30	HHDT	Gasoline	1.22E-05	1.74E-06	4.28E-06	4.35E-07	1.14E-07	1.05E-07	4.81E-05
2050	35	HHDT	Gasoline	1.04E-05	1.74E-06	3.63E-06	4.35E-07	9.39E-08	8.64E-08	3.99E-05
2050	40	HHDT	Gasoline	9.00E-06	1.74E-06	3.15E-06	4.35E-07	8.15E-08	7.49E-08	3.49E-05
2050	45	HHDT	Gasoline	7.64E-06	1.74E-06	2.67E-06	4.35E-07	7.46E-08	6.86E-08	3.21E-05
2050	50	HHDT	Gasoline	6.66E-06	1.74E-06	2.33E-06	4.35E-07	7.20E-08	6.62E-08	3.11E-05
2050	55	HHDT	Gasoline	6.66E-06	1.74E-06	2.33E-06	4.35E-07	7.33E-08	6.74E-08	3.16E-05
2050	60	HHDT	Gasoline	6.66E-06	1.74E-06	2.33E-06	4.35E-07	7.87E-08	7.24E-08	3.38E-05
2050	65	HHDT	Gasoline	6.66E-06	1.74E-06	2.33E-06	4.35E-07	8.92E-08	8.21E-08	3.80E-05

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2050	65	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	MHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	MHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	MHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	MHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	MHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG_fc1**	**PM2.5_FUG_fc2**	**PM2.5_FUG_fc3**	**PM2.5_FUG_fc4**	**PM2.5_FUG_fc5**	**PM2.5_FUG_fc6**	**PM2.5_FUG_fc7**	**PM2.5_FUG_fc8**	**PM2.5_FUG_fc9**
2050	65	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	MHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	MHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	MHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	MHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	MHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table Silt Loading: ---->

Criteria Pollutants (g/mi) Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2050	70	HHDT	Gasoline	6.66E-06	1.74E-06	2.33E-06	4.35E-07	9.69E-08	8.91E-08	4.10E-05
2050	75	HHDT	Gasoline	6.66E-06	1.74E-06	2.33E-06	4.35E-07	9.69E-08	8.91E-08	4.09E-05
2050	5	HHDT	Diesel	1.21E-01	2.90E-02	4.25E-02	7.26E-03	6.77E-03	6.48E-03	1.77E-01
2050	10	HHDT	Diesel	1.23E-01	2.90E-02	4.30E-02	7.26E-03	6.70E-03	6.41E-03	9.90E-02
2050	15	HHDT	Diesel	1.21E-01	2.90E-02	4.25E-02	7.26E-03	5.31E-03	5.08E-03	6.74E-02
2050	20	HHDT	Diesel	7.93E-02	2.90E-02	2.77E-02	7.26E-03	4.08E-03	3.91E-03	5.63E-02
2050	25	HHDT	Diesel	1.16E-01	2.90E-02	4.06E-02	7.26E-03	3.87E-03	3.70E-03	5.37E-02
2050	30	HHDT	Diesel	1.14E-01	2.90E-02	4.00E-02	7.26E-03	3.90E-03	3.73E-03	5.16E-02
2050	35	HHDT	Diesel	9.69E-02	2.90E-02	3.39E-02	7.26E-03	4.70E-03	4.50E-03	4.99E-02
2050	40	HHDT	Diesel	8.43E-02	2.90E-02	2.95E-02	7.26E-03	6.31E-03	6.04E-03	4.88E-02
2050	45	HHDT	Diesel	7.16E-02	2.90E-02	2.50E-02	7.26E-03	8.63E-03	8.25E-03	4.83E-02
2050	50	HHDT	Diesel	6.24E-02	2.90E-02	2.19E-02	7.26E-03	1.18E-02	1.13E-02	4.84E-02
2050	55	HHDT	Diesel	6.24E-02	2.90E-02	2.18E-02	7.26E-03	1.58E-02	1.51E-02	4.91E-02
2050	60	HHDT	Diesel	6.23E-02	2.90E-02	2.18E-02	7.26E-03	2.10E-02	2.01E-02	5.06E-02
2050	65	HHDT	Diesel	6.23E-02	2.90E-02	2.18E-02	7.26E-03	2.69E-02	2.57E-02	5.26E-02
2050	70	HHDT	Diesel	6.24E-02	2.90E-02	2.18E-02	7.26E-03	2.77E-02	2.65E-02	5.27E-02
2050	75	HHDT	Diesel	6.24E-02	2.90E-02	2.18E-02	7.26E-03	2.77E-02	2.65E-02	5.27E-02
2050	5	HHDT	Electricity	1.27E-02	5.76E-03	4.45E-03	1.44E-03	--	--	--
2050	10	HHDT	Electricity	1.38E-02	5.76E-03	4.84E-03	1.44E-03	--	--	--
2050	15	HHDT	Electricity	1.38E-02	5.76E-03	4.84E-03	1.44E-03	--	--	--
2050	20	HHDT	Electricity	4.60E-03	5.76E-03	1.61E-03	1.44E-03	--	--	--
2050	25	HHDT	Electricity	1.31E-02	5.76E-03	4.58E-03	1.44E-03	--	--	--
2050	30	HHDT	Electricity	1.28E-02	5.76E-03	4.49E-03	1.44E-03	--	--	--
2050	35	HHDT	Electricity	1.12E-02	5.76E-03	3.93E-03	1.44E-03	--	--	--
2050	40	HHDT	Electricity	9.99E-03	5.76E-03	3.50E-03	1.44E-03	--	--	--
2050	45	HHDT	Electricity	8.74E-03	5.76E-03	3.06E-03	1.44E-03	--	--	--
2050	50	HHDT	Electricity	7.78E-03	5.76E-03	2.72E-03	1.44E-03	--	--	--
2050	55	HHDT	Electricity	7.33E-03	5.76E-03	2.57E-03	1.44E-03	--	--	--
2050	60	HHDT	Electricity	6.84E-03	5.76E-03	2.39E-03	1.44E-03	--	--	--
2050	65	HHDT	Electricity	6.74E-03	5.76E-03	2.36E-03	1.44E-03	--	--	--
2050	70	HHDT	Electricity	6.57E-03	5.76E-03	2.30E-03	1.44E-03	--	--	--
2050	75	HHDT	Electricity	6.46E-03	5.76E-03	2.26E-03	1.44E-03	--	--	--
2050	5	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	10	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	15	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	20	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	25	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	30	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	35	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	40	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	45	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	50	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	55	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	60	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	65	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	70	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	75	HHDT	Plug-in Hybrid	--	--	--	--	--	--	--
2050	5	HHDT	Natural Gas	2.58E-03	6.28E-04	9.02E-04	1.57E-04	1.76E-04	1.62E-04	1.33E-01
2050	10	HHDT	Natural Gas	3.57E-03	6.28E-04	1.25E-03	1.57E-04	6.68E-05	6.14E-05	3.43E-02
2050	15	HHDT	Natural Gas	3.57E-03	6.28E-04	1.25E-03	1.57E-04	5.50E-05	5.06E-05	2.12E-02
2050	20	HHDT	Natural Gas	3.56E-03	6.28E-04	1.25E-03	1.57E-04	4.53E-05	4.17E-05	1.60E-02
2050	25	HHDT	Natural Gas	3.52E-03	6.28E-04	1.23E-03	1.57E-04	3.85E-05	3.54E-05	1.40E-02
2050	30	HHDT	Natural Gas	3.49E-03	6.28E-04	1.22E-03	1.57E-04	3.20E-05	2.94E-05	1.25E-02
2050	35	HHDT	Natural Gas	3.42E-03	6.28E-04	1.20E-03	1.57E-04	2.64E-05	2.43E-05	1.13E-02
2050	40	HHDT	Natural Gas	3.36E-03	6.28E-04	1.18E-03	1.57E-04	2.22E-05	2.04E-05	1.05E-02
2050	45	HHDT	Natural Gas	3.29E-03	6.28E-04	1.15E-03	1.57E-04	1.97E-05	1.81E-05	9.93E-03
2050	50	HHDT	Natural Gas	3.19E-03	6.28E-04	1.12E-03	1.57E-04	1.89E-05	1.74E-05	9.60E-03
2050	55	HHDT	Natural Gas	2.99E-03	6.28E-04	1.05E-03	1.57E-04	2.12E-05	1.95E-05	1.01E-02
2050	60	HHDT	Natural Gas	2.57E-03	6.28E-04	9.00E-04	1.57E-04	2.48E-05	2.28E-05	1.22E-02
2050	65	HHDT	Natural Gas	2.38E-03	6.28E-04	8.34E-04	1.57E-04	2.64E-05	2.42E-05	1.31E-02
2050	70	HHDT	Natural Gas	2.16E-03	6.28E-04	7.55E-04	1.57E-04	2.83E-05	2.60E-05	1.43E-02
2050	75	HHDT	Natural Gas	1.41E-03	6.28E-04	4.95E-04	1.57E-04	3.46E-05	3.18E-05	1.80E-02
2050	5	BUS	Gasoline	8.03E-03	1.23E-03	2.81E-03	3.09E-04	4.41E-04	4.06E-04	1.78E-02
2050	10	BUS	Gasoline	9.98E-03	1.23E-03	3.49E-03	3.09E-04	4.64E-04	4.26E-04	1.83E-02
2050	15	BUS	Gasoline	9.98E-03	1.23E-03	3.49E-03	3.09E-04	3.29E-04	3.03E-04	1.72E-02
2050	20	BUS	Gasoline	9.92E-03	1.23E-03	3.47E-03	3.09E-04	2.45E-04	2.25E-04	1.65E-02
2050	25	BUS	Gasoline	9.12E-03	1.23E-03	3.19E-03	3.09E-04	1.91E-04	1.76E-04	1.61E-02
2050	30	BUS	Gasoline	8.73E-03	1.23E-03	3.05E-03	3.09E-04	1.55E-04	1.43E-04	1.58E-02
2050	35	BUS	Gasoline	8.52E-03	1.23E-03	2.98E-03	3.09E-04	1.32E-04	1.22E-04	1.56E-02
2050	40	BUS	Gasoline	8.52E-03	1.23E-03	2.98E-03	3.09E-04	1.18E-04	1.09E-04	1.55E-02
2050	45	BUS	Gasoline	8.52E-03	1.23E-03	2.98E-03	3.09E-04	1.11E-04	1.02E-04	1.54E-02
2050	50	BUS	Gasoline	8.52E-03	1.23E-03	2.98E-03	3.09E-04	1.11E-04	1.02E-04	1.54E-02
2050	55	BUS	Gasoline	8.52E-03	1.23E-03	2.98E-03	3.09E-04	1.16E-04	1.07E-04	1.54E-02
2050	60	BUS	Gasoline	3.06E-03	1.23E-03	1.07E-03	3.09E-04	6.45E-05	5.93E-05	1.54E-02
2050	65	BUS	Gasoline	3.06E-03	1.23E-03	1.07E-03	3.09E-04	7.31E-05	6.72E-05	1.55E-02
2050	70	BUS	Gasoline	3.06E-03	1.23E-03	1.07E-03	3.09E-04	7.94E-05	7.30E-05	1.55E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2050	70	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	HHDT	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	HHDT	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	HHDT	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	HHDT	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	HHDT	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG _fc1**	**PM2.5_FUG _fc2**	**PM2.5_FUG _fc3**	**PM2.5_FUG _fc4**	**PM2.5_FUG _fc5**	**PM2.5_FUG _fc6**	**PM2.5_FUG _fc7**	**PM2.5_FUG _fc8**	**PM2.5_FUG _fc9**
2050	70	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	HHDT	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	HHDT	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	HHDT	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	HHDT	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	HHDT	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

Silt Loading: ---->

Functional Class: ---->

				Exhaust						
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_PMBW**	**PM10_PMTW**	**PM2.5_PMBW**	**PM2.5_PMTW**	**PM10_RUNIDL**	**PM2.5_RUNIDL**	**TOG_RUNIDLLOSS**
2050	75	BUS	Gasoline	3.06E-03	1.23E-03	1.07E-03	3.09E-04	7.94E-05	7.30E-05	1.55E-02
2050	5	BUS	Diesel	8.04E-03	1.57E-03	2.82E-03	3.92E-04	8.87E-04	8.48E-04	1.90E-02
2050	10	BUS	Diesel	1.22E-02	2.20E-03	4.26E-03	5.50E-04	9.40E-04	8.99E-04	1.44E-02
2050	15	BUS	Diesel	1.32E-02	2.20E-03	4.61E-03	5.50E-04	7.32E-04	7.00E-04	8.12E-03
2050	20	BUS	Diesel	1.31E-02	2.20E-03	4.58E-03	5.50E-04	6.12E-04	5.86E-04	5.90E-03
2050	25	BUS	Diesel	1.08E-02	2.20E-03	3.78E-03	5.50E-04	5.26E-04	5.04E-04	5.16E-03
2050	30	BUS	Diesel	9.46E-03	2.20E-03	3.31E-03	5.50E-04	5.02E-04	4.80E-04	4.72E-03
2050	35	BUS	Diesel	8.31E-03	2.20E-03	2.91E-03	5.50E-04	5.37E-04	5.13E-04	4.40E-03
2050	40	BUS	Diesel	8.24E-03	2.20E-03	2.89E-03	5.50E-04	6.42E-04	6.14E-04	4.19E-03
2050	45	BUS	Diesel	8.38E-03	2.20E-03	2.93E-03	5.50E-04	8.36E-04	8.00E-04	4.10E-03
2050	50	BUS	Diesel	9.34E-03	2.20E-03	3.27E-03	5.50E-04	1.30E-03	1.24E-03	4.12E-03
2050	55	BUS	Diesel	1.13E-02	2.20E-03	3.94E-03	5.50E-04	2.21E-03	2.11E-03	4.27E-03
2050	60	BUS	Diesel	1.22E-02	2.20E-03	4.26E-03	5.50E-04	3.18E-03	3.04E-03	4.55E-03
2050	65	BUS	Diesel	1.22E-02	2.20E-03	4.27E-03	5.50E-04	4.04E-03	3.87E-03	4.95E-03
2050	70	BUS	Diesel	1.22E-02	2.20E-03	4.27E-03	5.50E-04	4.04E-03	3.87E-03	4.95E-03
2050	75	BUS	Diesel	1.22E-02	2.20E-03	4.27E-03	5.50E-04	4.04E-03	3.87E-03	4.95E-03
2050	5	BUS	Electricity	1.74E-03	1.63E-03	6.09E-04	4.07E-04	--	--	--
2050	10	BUS	Electricity	3.33E-02	2.02E-02	1.16E-02	5.05E-03	--	--	--
2050	15	BUS	Electricity	3.33E-02	2.02E-02	1.16E-02	5.05E-03	--	--	--
2050	20	BUS	Electricity	3.32E-02	2.02E-02	1.16E-02	5.05E-03	--	--	--
2050	25	BUS	Electricity	3.24E-02	2.02E-02	1.13E-02	5.05E-03	--	--	--
2050	30	BUS	Electricity	3.20E-02	2.02E-02	1.12E-02	5.05E-03	--	--	--
2050	35	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	40	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	45	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	50	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	55	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	60	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	65	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	70	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	75	BUS	Electricity	3.18E-02	2.02E-02	1.11E-02	5.05E-03	--	--	--
2050	5	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	10	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	15	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	20	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	25	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	30	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	35	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	40	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	45	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	50	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	55	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	60	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	65	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	70	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	75	BUS	Plug-in Hybrid	--	--	--	--	--	--	--
2050	5	BUS	Natural Gas	7.92E-04	1.54E-04	2.77E-04	3.86E-05	5.99E-05	5.50E-05	5.01E-02
2050	10	BUS	Natural Gas	8.59E-04	1.68E-04	3.00E-04	4.19E-05	6.76E-05	6.21E-05	4.78E-02
2050	15	BUS	Natural Gas	8.59E-04	1.68E-04	3.00E-04	4.19E-05	5.54E-05	5.09E-05	2.91E-02
2050	20	BUS	Natural Gas	8.46E-04	1.68E-04	2.96E-04	4.19E-05	4.48E-05	4.12E-05	2.11E-02
2050	25	BUS	Natural Gas	6.95E-04	1.68E-04	2.43E-04	4.19E-05	3.58E-05	3.29E-05	1.68E-02
2050	30	BUS	Natural Gas	6.20E-04	1.68E-04	2.17E-04	4.19E-05	2.84E-05	2.61E-05	1.40E-02
2050	35	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	2.25E-05	2.07E-05	1.21E-02
2050	40	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	1.82E-05	1.68E-05	1.07E-02
2050	45	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	1.55E-05	1.43E-05	9.63E-03
2050	50	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	1.44E-05	1.32E-05	8.79E-03
2050	55	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	1.49E-05	1.37E-05	8.11E-03
2050	60	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	1.49E-05	1.37E-05	8.11E-03
2050	65	BUS	Natural Gas	5.81E-04	1.68E-04	2.03E-04	4.19E-05	1.49E-05	1.37E-05	8.11E-03
2050	70	BUS	Natural Gas	4.52E-05	1.30E-05	1.58E-05	3.26E-06	3.35E-06	3.08E-06	1.88E-03
2050	75	BUS	Natural Gas	4.52E-05	1.30E-05	1.58E-05	3.26E-06	3.35E-06	3.08E-06	1.88E-03

SANDAG Air Quality Modeling Inputs

Final EMFAC Table				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
Criteria Pollutants (g/mi)				1	2	3	4	5	6	7	8	9
				Fugitive PM_{10}								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM10_FUG _fc1**	**PM10_FUG _fc2**	**PM10_FUG _fc3**	**PM10_FUG _fc4**	**PM10_FUG _fc5**	**PM10_FUG _fc6**	**PM10_FUG _fc7**	**PM10_FUG _fc8**	**PM10_FUG _fc9**
2050	75	BUS	Gasoline	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	BUS	Diesel	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	BUS	Electricity	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	BUS	Plug-in Hybrid	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	5	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	10	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	15	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	20	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	25	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	30	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	35	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	40	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	45	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	50	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	55	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	60	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	65	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	70	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02
2050	75	BUS	Natural Gas	5.14E-02	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	8.33E-01	5.14E-02	5.14E-02

SANDAG Air Quality Modeling Inputs

Final EMFAC Table

Criteria Pollutants (g/mi)

				0.015	0.032	0.032	0.032	0.032	0.032	0.32	0.015	0.015
				1	2	3	4	5	6	7	8	9
				Fugitive $PM_{2.5}$								
Year	**Speed**	**SANDAG Veh class**	**Fuel (name)**	**PM2.5_FUG _fc1**	**PM2.5_FUG _fc2**	**PM2.5_FUG _fc3**	**PM2.5_FUG _fc4**	**PM2.5_FUG _fc5**	**PM2.5_FUG _fc6**	**PM2.5_FUG _fc7**	**PM2.5_FUG _fc8**	**PM2.5_FUG _fc9**
2050	75	BUS	Gasoline	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	BUS	Diesel	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	BUS	Electricity	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	BUS	Plug-in Hybrid	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	5	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	10	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	15	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	20	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	25	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	30	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	35	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	40	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	45	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	50	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	55	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	60	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	65	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	70	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03
2050	75	BUS	Natural Gas	7.71E-03	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.25E-01	7.71E-03	7.71E-03

SANDAG Air Quality Modeling Inputs
Acute Risk Parameters and Target Organs

CAS	POLABBREV	AcuteREL	MolWtCorrection	Acute CV_	Acute CNS_	AcuteIMMUN_	Acute KIDNEY_	Acute GILV_	AcuteREPRO_DEVEL_	Acute RESP_	Acute SKIN_	Acute EYE_	Acute BONE_TEETH_	Acute ENDO_	Acute BLOOD_	Acute ODOR_	Acute GENERAL_
9901	DieselExhPM	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50000	Formaldehyde	55	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--
50328	B[a]P	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
53703	D[a,h]anthracen	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
56553	B[a]anthracene	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
67561	Methanol	28000	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
71432	Benzene	27	1	--	--	1	--	--	1	--	--	--	--	--	1	--	--
75070	Acetaldehyde	470	1	--	--	--	--	--	--	1	--	1	--	--	--	--	--
78933	MEK	13000	1	--	--	--	--	--	--	1	--	1	--	--	--	--	--
91203	Naphthalene	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
95476	o-Xylene	22000	1	--	1	--	--	--	--	1	--	1	--	--	--	--	--
95636	1,2,4TriMeBenze	2400	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
100414	Ethyl Benzene	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
100425	Styrene	21000	1	--	--	--	--	--	1	1	--	1	--	--	--	--	--
106990	1,3-Butadiene	660	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--
107028	Acrolein	2.5	1	--	--	--	--	--	--	1	--	1	--	--	--	--	--
108383	m-Xylene	22000	1	--	1	--	--	--	--	1	--	1	--	--	--	--	--
108678	1,3,5TriMeBenze	2400	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
108883	Toluene	5000	1	--	1	--	--	--	--	1	--	1	--	--	--	--	--
108952	Phenol	5800	1	--	--	--	--	--	--	1	--	1	--	--	--	--	--
110543	Hexane	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
115071	Propylene	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
193395	In[1,2,3-cd]pyr	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
205992	B[b]fluoranthen	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
218019	Chrysene	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
526738	1,2,3TriMeBenze	2400	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
1634044	Me t-ButylEther	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3697243	5-MeChrysene	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7439921	Lead	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7439965	Manganese	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7439976	Mercury	0.6	1	--	1	--	--	--	1	--	--	--	--	--	--	--	--
7440020	Nickel	0.2	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--
7440382	Arsenic	0.2	1	1	1	--	--	--	1	--	--	--	--	--	--	--	--
7440439	Cadmium	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7440484	Cobalt	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7440508	Copper	100	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
7440622	Vanadium	30	1	--	--	--	--	--	--	1	--	1	--	--	--	--	--
7782492	Selenium	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SANDAG Air Quality Modeling Inputs
Chronic Risk Parameters and Target Organs

CAS	POLABBREV	Inhalation ChronicREL	ChrR	MolWtCorrection	Inhalation ChronicCV_	Inhalation ChronicCNS_	Inhalation ChronicIMMUN_	Inhalation ChronicKIDNEY_	Inhalation ChronicGILV_	InhalationChronicREPRO_DEVEL_	Inhalation ChronicRESP_	Inhalation ChronicSKIN_	Inhalation ChronicEYE_	Inhalation ChronicBONE_TEETH_	Inhalation ChronicENDO_	Inhalation ChronicBLOOD_	Inhalation ChronicODOR_	Inhalation ChronicGENERAL_
9901	DieselExhPM	5	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
50000	Formaldehyde	9	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
50328	B[a]P	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
53703	D[a,h]anthracen	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
56553	B[a]anthracene	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
67561	Methanol	4000	1	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--
71432	Benzene	3	1	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--
75070	Acetaldehyde	140	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
78933	MEK	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
91203	Naphthalene	9	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
95476	o-Xylene	700	1	1	--	1	--	--	--	--	1	--	1	--	--	--	--	--
95636	1,2,4TriMeBenze	4	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
100414	Ethyl Benzene	2000	1	1	--	--	--	1	1	1	--	--	--	--	1	--	--	--
100425	Styrene	900	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
106990	1,3-Butadiene	2	1	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--
107028	Acrolein	0.35	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
108383	m-Xylene	700	1	1	--	1	--	--	--	--	1	--	1	--	--	--	--	--
108678	1,3,5TriMeBenze	4	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
108883	Toluene	420	1	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--
108952	Phenol	200	1	1	1	1	--	1	1	--	--	--	--	--	--	--	--	--
110543	Hexane	7000	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
115071	Propylene	3000	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
193395	In[1,2,3-cd]pyr	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
205992	B[b]fluoranthen	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
218019	Chrysene	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
526738	1,2,3TriMeBenze	4	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
1634044	Me t-ButylEther	8000	1	1	--	--	--	1	1	--	--	--	1	--	--	--	--	--
3697243	5-MeChrysene	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7439921	Lead	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7439965	Manganese	0.09	1	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
7439976	Mercury	0.03	4.09	1	--	1	--	1	--	1	--	--	--	--	--	--	--	--
7440020	Nickel	0.014	1	1	--	--	--	--	--	--	1	--	--	--	--	1	--	--
7440382	Arsenic	0.015	97.5	1	1	1	--	--	--	1	1	1	--	--	--	--	--	--
7440439	Cadmium	0.02	2.09	1	--	--	--	1	--	--	1	--	--	--	--	--	--	--
7440484	Cobalt	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7440508	Copper	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7440622	Vanadium	0	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7782492	Selenium	20	225	1	1	1	--	--	1	--	--	--	--	--	--	--	--	--

ChrR is the Chronic Multi-Pathway Factor for Residential Receptors

SANDAG Air Quality Modeling Inputs
Cancer Risk Parameters

CAS	POLABBREV	InhalationCancerSlopeFactor	MolWtCorrection	30R	Resident CEF
9901	DieselExhPM	1.1	1	1	676.63
50000	Formaldehyde	0.021	1	1	676.63
50328	B[a]P	3.9	1	27.5	676.63
53703	D[a,h]anthracen	4.1	1	9.41	676.63
56553	B[a]anthracene	0.39	1	27.5	676.63
67561	Methanol	0	1	1	676.63
71432	Benzene	0.1	1	1	676.63
75070	Acetaldehyde	0.01	1	1	676.63
78933	MEK	0	1	1	676.63
91203	Naphthalene	0.12	1	1	676.63
95476	o-Xylene	0	1	1	676.63
95636	1,2,4TriMeBenze	0	1	1	676.63
100414	Ethyl Benzene	0.0087	1	1	676.63
100425	Styrene	0	1	1	676.63
106990	1,3-Butadiene	0.6	1	1	676.63
107028	Acrolein	0	1	1	676.63
108383	m-Xylene	0	1	1	676.63
108678	1,3,5TriMeBenze	0	1	1	676.63
108883	Toluene	0	1	1	676.63
108952	Phenol	0	1	1	676.63
110543	Hexane	0	1	1	676.63
115071	Propylene	0	1	1	676.63
193395	In[1,2,3-cd]pyr	0.39	1	27.5	676.63
205992	B[b]fluoranthen	0.39	1	27.5	676.63
218019	Chrysene	0.039	1	27.5	676.63
526738	1,2,3TriMeBenze	0	1	1	676.63
1634044	Me t-ButylEther	0.0018	1	1	676.63
3697243	5-MeChrysene	3.9	1	27.5	676.63
7439921	Lead	0.042	1	11.8	676.63
7439965	Manganese	0	1	1	676.63
7439976	Mercury	0	1	1	676.63
7440020	Nickel	0.91	1	1	676.63
7440382	Arsenic	12	1	10.7	676.63
7440439	Cadmium	15	1	1	676.63
7440484	Cobalt	27	1	1	676.63
7440508	Copper	0	1	1	676.63
7440622	Vanadium	0	1	1	676.63
7782492	Selenium	0	1	1	676.63

30R is the Cancer Multi-Pathway Factor for Residential Receptors

SANDAG Air Quality Modeling Inputs
Vehicle Quantities from EMFAC for Proportioning in Glinda

		Glinda fuel # -->	1	2	3	4	5	
SANDAG VEH type (name)	**SANDAG VEH type (Glinda number)**	**Scenario Year**	**Gasoline**	**Diesel**	**Electricity**	**Plug-in Hybrid**	**Natural Gas**	**Total**
AUTO	1	2022	73,661,033	330,080	2,150,391	1,372,522	0	77,514,026
LHDT	2	2022	14,765,449	1,841,779	46,899	79,487	0	16,733,616
MHDT	3	2022	192,778	736,028	0	0	12,125	940,932
HHDT	4	2022	578	1,811,813	0	0	61,457	1,873,849
BUS	5	2022	89,074	92,742	0	0	111,125	292,942
AUTO	1	2035	73,570,677	167,543	6,736,350	2,768,049	0	83,242,620
LHDT	2	2035	15,064,173	1,676,465	1,415,973	337,827	0	18,494,437
MHDT	3	2035	154,954	653,261	287,880	0	11,019	1,107,113
HHDT	4	2035	480	2,148,488	263,759	0	81,625	2,494,352
BUS	5	2035	65,773	86,399	116,248	0	71,607	340,028
AUTO	1	2050	75,179,249	148,026	7,824,649	3,025,302	0	86,177,227
LHDT	2	2050	14,931,398	1,219,288	2,752,042	425,727	0	19,328,455
MHDT	3	2050	98,058	539,005	729,155	0	7,551	1,373,769
HHDT	4	2050	342	3,194,533	660,726	0	68,433	3,924,034
BUS	5	2050	55,094	75,609	276,111	0	5,760	412,574

SANDAG Air Quality Modeling Inputs
Toxic Air Contaminants - Constituents Present

CAS	Compound	Particle (PM as Master Pollutant)	Gas (TOG as Master Pollutant)	Gasoline Exhaust	Diesel Exhaust	Paved Road Dust	Tire Wear	Brake Wear	Rail	Acute Non-Cancer	Chronic Non-Cancer	Cancer
9901	Diesel engine exhaust, particulate matter (Diesel PM)	X			X				X		X	X
50000	Formaldehyde		X	X	X				X	X	X	X
50328	Benzo[a]pyrene	X		X	X				X			X
53703	Dibenz[a,h]anthracene	X		X	X				X			X
56553	Benz[a]anthracene	X		X	X	X			X			X
67561	Methanol		X	X						X	X	
71432	Benzene		X	X	X				X	X	X	X
75070	Acetaldehyde		X	X	X				X	X	X	X
78933	thyl ethyl ketone {2-Butano		X	X						X		
91203	Naphthalene	X	X	X	X				X		X	X
95476	o-Xylene		X	X	X				X	X	X	
95636	1,2,4-Trimethylbenzene		X	X	X				X	X	X	
100414	Ethyl benzene		X	X	X				X		X	X
100425	Styrene		X	X	X				X	X	X	
106990	1,3-Butadiene		X	X	X				X	X	X	X
107028	Acrolein		X	X	X				X	X	X	
108383	m-Xylene		X	X	X				X	X	X	
108678	1,3,5-Trimethylbenzene		X	X	X				X	X	X	
108883	Toluene		X	X	X				X	X	X	
108952	Phenol		X		X				X	X	X	
110543	Hexane		X	X	X				X		X	
115071	Propylene		X	X	X				X		X	
193395	Indeno[1,2,3-cd]pyrene	X		X	X				X			X
205992	Benzo[b]fluoranthene	X		X								X
218019	Chrysene	X		X	X				X			X
526738	1,2,3-Trimethylbenzene		X	X	X				X	X	X	
1634044	Methyl tert-butyl ether		X	X							X	X
3697243	5-Methylchrysene	X		X	X				X			X
7439921	Lead	X		X	X	X	X	X	X			X
7439965	Manganese	X		X	X	X	X	X	X		X	
7439976	Mercury	X		X	X	X			X	X	X	
7440020	Nickel	X		X	X	X	X	X	X	X	X	X
7440382	Arsenic	X		X	X	X	X	X	X	X	X	X
7440439	Cadmium	X		X	X	X		X	X		X	X
7440484	Cobalt	X		X	X	X		X	X			X
7440508	Copper	X		X	X	X	X	X	X	X		
7440622	Vanadium (fume or dust)	X		X	X	X	X	X	X	X		
7782492	Selenium	X		X	X	X	X	X	X		X	

SANDAG Air Quality Modeling Inputs
Toxic Air Contaminants - Health Risk Parameters and Proportions

				Emission Type --	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Rail	Rail	Rail
				Species --->	PM10	PM10	PM10	PM2.5	PM2.5	PM2.5	PM2.5	TOG	TOG	TOG	PM2.5	PM2.5	TOG
				Fuel Type -->	all	all	all	Diesel	Diesel	Gas	Hybrid	Diesel	Gas	Hybrid	Diesel	Diesel	Diesel
				Use for analysis ->	All vehicles - Cancer, Chronic, Acute	All vehicles - Cancer, Chronic, Acute	All vehicles - Cancer, Chronic, Acute	Diesel - Acute only	Diesel Cancer and Chronic	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Diesel - Acute only	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Diesel Cancer and Chronic	Diesel - Acute only	Diesel - Acute only
				Glinda Species #--->	1	1	1	2	2	2	2	3	3	3	2	2	3
				Glinda Fuel Type #-->	all	all	all	2	2	1	4	2	1	4	2	2	2
CAS	**POLABBREV**	**AcuteREL**	**InhalationChronicREL**	**InhalationCancerSlopeFactor**	**frac_of_PM10_FUGEF**	**frac_of_PM10_PMTW**	**frac_of_PM10_PMBW**	**frac_of_diesel PM2.5_RUNIDL**	**frac_of_diesel PM2.5_RUNIDL**	**frac_of_gas PM2.5_RUNIDL**	**frac_of_hybrid PM2.5_RUNIDL**	**frac_of_diesel TOG_RUNIDLLOSS**	**frac_of_gas TOG_RUNIDLLOSS**	**frac_of_hybrid TOG_RUNIDLLOSS**	**frac_of_rail_DPM**	**frac_of_rail_DPM (PM2.5)**	**frac_of_rail_TOG**
9901	DieselExhPM	0	5	1.1	0	0	0	0	1	0	0	0	0	0	1	0	0
50000	Formaldehyde	55	9	0.021	0	0	0	0	0	0	0	9.66E-02	1.90E-02	1.90E-02	0	0	9.66E-02
50328	B[a]P	0	0	3.9	0	0	0	5.88E-05	0	2.05E-04	2.05E-04	0	0	0	0	5.88E-05	0
53703	D[a,h]anthracen	0	0	4.1	0	0	0	3.88E-06	0	3.04E-05	3.04E-05	0	0	0	0	3.88E-06	0
56553	B[a]anthracene	0	0	0.39	9.80E-07	0	0	1.65E-04	0	8.68E-05	8.68E-05	0	0	0	0	1.65E-04	0
67561	Methanol	28000	4000	0	0	0	0	0	0	0	0	0	7.95E-03	7.95E-03	0	0	0
71432	Benzene	27	3	0.1	0	0	0	0	0	0	0	1.04E-02	2.83E-02	2.83E-02	0	0	1.04E-02
75070	Acetaldehyde	470	140	0.01	0	0	0	0	0	0	0	3.37E-02	4.38E-03	4.38E-03	0	0	3.37E-02
78933	MEK	13000	0	0	0	0	0	0	0	0	0	0	6.00E-04	6.00E-04	0	0	0
91203	Naphthalene	0	9	0.12	0	0	0	1.72E-02	0	1.71E-01	1.71E-01	1.25E-03	6.75E-04	6.75E-04	0	1.72E-02	1.25E-03
95476	o-Xylene	22000	700	0	0	0	0	0	0	0	0	9.77E-04	1.56E-02	1.56E-02	0	0	9.77E-04
95636	1,2,4TriMeBenze	2400	4	0	0	0	0	0	0	0	0	3.31E-03	1.22E-02	1.22E-02	0	0	3.31E-03
100414	Ethyl Benzene	0	2000	0.0087	0	0	0	0	0	0	0	1.10E-03	1.38E-02	1.38E-02	0	0	1.10E-03
100425	Styrene	21000	900	0	0	0	0	0	0	0	0	1.79E-03	1.60E-03	1.60E-03	0	0	1.79E-03
106990	1,3-Butadiene	660	2	0.6	0	0	0	0	0	0	0	3.41E-03	7.15E-03	7.15E-03	0	0	3.41E-03
107028	Acrolein	2.5	0.35	0	0	0	0	0	0	0	0	4.15E-03	1.40E-03	1.40E-03	0	0	4.15E-03
108383	m-Xylene	22000	700	0	0	0	0	0	0	0	0	2.23E-03	4.52E-02	4.52E-02	0	0	2.23E-03
108678	1,3,5TriMeBenze	2400	4	0	0	0	0	0	0	0	0	3.34E-04	4.98E-03	4.98E-03	0	0	3.34E-04
108883	Toluene	5000	420	0	0	0	0	0	0	0	0	3.23E-03	6.84E-02	6.84E-02	0	0	3.23E-03
108952	Phenol	5800	200	0	0	0	0	0	0	0	0	1.28E-03	0	0	0	0	1.28E-03
110543	Hexane	0	7000	0	0	0	0	0	0	0	0	2.73E-03	1.59E-02	1.59E-02	0	0	2.73E-03
115071	Propylene	0	3000	0	0	0	0	0	0	0	0	1.61E-02	3.61E-02	3.61E-02	0	0	1.61E-02
193395	In[1,2,3-cd]pyr	0	0	0.39	0	0	0	1.01E-05	0	2.94E-04	2.94E-04	0	0	0	0	1.01E-05	0
205992	B[b]fluoranthen	0	0	0.39	0	0	0	0	0	2.52E-04	2.52E-04	0	0	0	0	0	0
218019	Chrysene	0	0	0.039	0	0	0	6.91E-05	0	7.14E-05	7.14E-05	0	0	0	0	6.91E-05	0
526738	1,2,3TriMeBenze	2400	4	0	0	0	0	0	0	0	0	1.72E-05	2.30E-03	2.30E-03	0	0	1.72E-05
1634044	Me t-ButylEther	0	8000	0.0018	0	0	0	0	0	0	0	0	2.66E-02	2.66E-02	0	0	0
3697243	5-MeChrysene	0	0	3.9	0	0	0	1.47E-05	0	1.06E-05	1.06E-05	0	0	0	0	1.47E-05	0
7439921	Lead	0	0	0.042	6.57E-04	1.75E-06	1.13E-05	5.77E-05	0	1.91E-04	1.91E-04	0	0	0	0	5.77E-05	0
7439965	Manganese	0	0.09	0	7.68E-04	2.86E-05	1.99E-03	2.55E-05	0	3.62E-05	3.62E-05	0	0	0	0	2.55E-05	0
7439976	Mercury	0.6	0.03	0	8.00E-06	0	0	2.85E-05	0	3.66E-05	3.66E-05	0	0	0	0	2.85E-05	0
7440020	Nickel	0.2	0.014	0.91	8.23E-05	5.00E-05	6.60E-04	1.36E-05	0	6.13E-05	6.13E-05	0	0	0	0	1.36E-05	0
7440382	Arsenic	0.2	0.015	12	2.62E-06	2.11E-05	8.45E-05	1.50E-05	0	7.07E-06	7.07E-06	0	0	0	0	1.50E-05	0
7440439	Cadmium	0	0.02	15	8.31E-06	0	8.15E-07	1.74E-04	0	1.03E-04	1.03E-04	0	0	0	0	1.74E-04	0
7440484	Cobalt	0	0	27	6.22E-05	0	7.00E-05	2.18E-05	0	2.13E-05	2.13E-05	0	0	0	0	2.18E-05	0
7440508	Copper	100	0	0	1.30E-04	1.29E-04	2.51E-02	6.84E-05	0	3.71E-04	3.71E-04	0	0	0	0	6.84E-05	0
7440622	Vanadium	30	0	0	2.24E-04	5.45E-06	3.75E-04	3.18E-05	0	3.34E-05	3.34E-05	0	0	0	0	3.18E-05	0
7782492	Selenium	0	20	0	2.08E-06	2.00E-05	2.00E-05	1.77E-05	0	1.12E-05	1.12E-05	0	0	0	0	1.77E-05	0

Note: Fractions are divided by 100 in this table, as the speciate db expresses these differently (e.g. 50.1% is listed as 50.1, and not .501)
Only those species with a judgement rating of 5 were included.
https://www.epa.gov/sites/default/files/2019-07/documents/speciate_5.0.pdf

SANDAG Air Quality Modeling Inputs
Combined Exposure Factors

Resident CEF Equation:
CEF = Daily BR x ASF x ED x FAH x EF/AT

Resident

Equation Inputs	Abbreviation	Units	Values			
Age Bin	--	--	Third Trimester	0 - 2	2 - 16	16 - 30
Resident Daily Breathing Rate, Normalized to Body Weight	DBR	L/kg-day	361	1,090	572	261
Age Sensitivity Factor	ASF	unitless	10	10	3	1
Exposure Duration	ED	years	0.25	2	14	14
Fraction of Time at Home	FAH	%	1	1	1	0.73
Days/yr:			350	350	350	350
Exposure Frequency	EF	unitless	0.96	0.96	0.96	0.96
Averaging Time	AT	years	70	70	70	70
Combined Exposure Factor	**CEF**	**unitless**	**676.63**			

Student

Equation Inputs	Abbreviation	Units	Values
Age Bin	--	--	2 - 16
8-hour Breathing Rate	8hr BR/BW	L/kg-8hr	520
Age Sensitivity Factor	ASF	unitless	3
Exposure Duration	ED	years	13
Hours/day at location			8
Days/yr at location			180
Exposure Frequency	EF	unitless	0.493
Averaging Time	AT	years	70
Combined Exposure Factor	**CEF**	**unitless**	**142.87**
Student Adjustment Factor*	**0.2112**		

*Includes adjustment of CEF assumed from residential exposure calculations

Chronic Adjustment Factor	**0.1644**

Chronic Adjustment Factor assumes 8 hours/day, 180 days/yr

SANDAG Air Quality Modeling Inputs
Combined Exposure Factors

Park

Equation Inputs	Abbreviation	Units	Values		
Age Bin	--	--	0 - 2	2 - 16	16-30
8-hour Breathing Rate	8hr BR/BW	L/kg-8hr	1,200	520	240
Age Sensitivity Factor	ASF	unitless	10	3	1
Exposure Duration	ED	years	2	14	14
Hours/day at location			2	2	2
days/yr at location			180	180	180
Exposure Frequency	EF	unitless	0.493	0.493	0.493
Averaging Time	AT	years	70	70	70
Combined Exposure Factor	**CEF**	**unitless**	**86.65**		
Park Adjustment Factor*	**0.1281**				

*Includes adjustment of CEF assumed from residential exposure calculations

Chronic Adjustment Factor	**0.0411**

Chronic Adjustment Factor assumes 2 hours/day, 180 days/yr

http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf
Breathing rates from https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

SANDAG Air Quality Modeling Inputs

HRA Calculation Example - Acute Max Hourly Concentrations

	Emission Type -->	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles
	Species --->	PM10	PM10	PM10	PM2.5	PM2.5	PM2.5	TOG	TOG	TOG
	Fuel Type -->	all	all	all	Diesel	Gas	Hybrid	Gas	Hybrid	Diesel
	Use for analysis ->	All vehicles - Cancer, Chronic, Acute	All vehicles - Cancer, Chronic, Acute	All vehicles - Cancer, Chronic, Acute	Diesel - Acute only	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Diesel - Acute only
	Glinda Species #--->	1	1	1	2	2	2	3	3	3
	Glinda Fuel Type #-->				2	1	4	1	4	2
CAS	**POLABBREV**	**frac_of_PM10_FUGEF**	**frac_of_PM10_PMTW**	**frac_of_PM10_PMBW**	**ACUTE_frac_of_diesel PM2.5_RUNIDL**	**frac_of_gas PM2.5_RUNIDL**	**frac_of_hybrid PM2.5_RUNIDL**	**frac_of_gas TOG_RUNIDLLOSS**	**frac_of_hybrid TOG_RUNIDLLOSS**	**frac_of_diesel TOG_RUNIDLLOSS**
9901	DieselExhPM	0	0	0	0	0	0	0	0	0
50000	Formaldehyde	0	0	0	0	0	0	1.90E-02	1.90E-02	9.66E-02
50328	B[a]P	0	0	0	5.88E-05	2.05E-04	2.05E-04	0	0	0
53703	D[a,h]anthracen	0	0	0	3.88E-06	3.04E-05	3.04E-05	0	0	0
56553	B[a]anthracene	0	0	0	1.65E-04	8.68E-05	8.68E-05	0	0	0
67561	Methanol	0	0	0	0	0	0	7.95E-03	7.95E-03	0.00E+00
71432	Benzene	0	0	0	0	0	0	2.83E-02	2.83E-02	1.04E-02
75070	Acetaldehyde	0	0	0	0	0	0	4.38E-03	4.38E-03	3.37E-02
78933	MEK	0	0	0	0	0	0	6.00E-04	6.00E-04	0.00E+00
91203	Naphthalene	0	0	0	1.72E-02	1.71E-01	1.71E-01	6.75E-04	6.75E-04	1.25E-03
95476	o-Xylene	0	0	0	0	0	0	1.56E-02	1.56E-02	9.77E-04
95636	1,2,4TriMeBenze	0	0	0	0	0	0	1.22E-02	1.22E-02	3.31E-03
100414	Ethyl Benzene	0	0	0	0	0	0	1.38E-02	1.38E-02	1.10E-03
100425	Styrene	0	0	0	0	0	0	1.60E-03	1.60E-03	1.79E-03
106990	1,3-Butadiene	0	0	0	0	0	0	7.15E-03	7.15E-03	3.41E-03
107028	Acrolein	0	0	0	0	0	0	1.40E-03	1.40E-03	4.15E-03
108383	m-Xylene	0	0	0	0	0	0	4.52E-02	4.52E-02	2.23E-03
108678	1,3,5TriMeBenze	0	0	0	0	0	0	4.98E-03	4.98E-03	3.34E-04
108883	Toluene	0	0	0	0	0	0	6.84E-02	6.84E-02	3.23E-03
108952	Phenol	0	0	0	0	0	0	0	0	1.28E-03
110543	Hexane	0	0	0	0	0	0	1.59E-02	1.59E-02	2.73E-03
115071	Propylene	0	0	0	0	0	0	3.61E-02	3.61E-02	1.61E-02
193395	In[1,2,3-cd]pyr	0	0	0	1.01E-05	2.94E-04	2.94E-04	0	0	0
205992	B[b]fluoranthen	0	0	0	0	2.52E-04	2.52E-04	0	0	0
218019	Chrysene	0	0	0	6.91E-05	7.14E-05	7.14E-05	0	0	0
526738	1,2,3TriMeBenze	0	0	0	0	0	0	2.30E-03	2.30E-03	1.72E-05
1634044	Me t-ButylEther	0	0	0	0	0	0	2.66E-02	2.66E-02	0
3697243	5-MeChrysene	0	0	0	1.47E-05	1.06E-05	1.06E-05	0	0	0
7439921	Lead	6.57E-04	1.75E-06	1.13E-05	5.77E-05	1.91E-04	1.91E-04	0	0	0
7439965	Manganese	7.68E-04	2.86E-05	1.99E-03	2.55E-05	3.62E-05	3.62E-05	0	0	0
7439976	Mercury	8.00E-06	0	0	2.85E-05	3.66E-05	3.66E-05	0	0	0
7440020	Nickel	8.23E-05	5.00E-05	6.60E-04	1.36E-05	6.13E-05	6.13E-05	0	0	0
7440382	Arsenic	2.62E-06	2.11E-05	8.45E-05	1.50E-05	7.07E-06	7.07E-06	0	0	0
7440439	Cadmium	8.31E-06	0	8.15E-07	1.74E-04	1.03E-04	1.03E-04	0	0	0
7440484	Cobalt	6.22E-05	0	7.00E-05	2.18E-05	2.13E-05	2.13E-05	0	0	0
7440508	Copper	1.30E-04	1.29E-04	2.51E-02	6.84E-05	3.71E-04	3.71E-04	0	0	0
7440622	Vanadium	2.24E-04	5.45E-06	3.75E-04	3.18E-05	3.34E-05	3.34E-05	0	0	0
7782492	Selenium	2.08E-06	2.00E-05	2.00E-05	1.77E-05	1.12E-05	1.12E-05	0	0	0

Max Hourly

Results from Glinda

Statistic	16801			16801			16801		
Max-1Hr	10.08	10.08	10.08	1.98	1.98	1.98	8.04	8.04	8.04
Fuel Fraction	PM10			PM2.5			TOG		
ft_gasoline	8.50E-01	8.50E-01	8.50E-01	8.07E-01	8.07E-01	8.07E-01	7.53E-01	7.53E-01	7.53E-01
ft_diesel	9.83E-02	9.83E-02	9.83E-02	1.49E-01	1.49E-01	1.49E-01	7.57E-02	7.57E-02	7.57E-02
ft_electric	1.92E-02	1.92E-02	1.92E-02	1.41E-02	1.41E-02	1.41E-02	0	0	0
ft_hybrid	1.24E-02	1.24E-02	1.24E-02	9.07E-03	9.07E-03	9.07E-03	1.65E-05	1.65E-05	1.65E-05
ft_ngas	1.99E-02	1.99E-02	1.99E-02	2.03E-02	2.03E-02	2.03E-02	1.71E-01	1.71E-01	1.71E-01
Emiss Type Fraction									
ec_brake	1.13E-01	1.13E-01	1.13E-01	1.93E-01	1.93E-01	1.93E-01	0	0	0
ec_tire	6.04E-02	6.04E-02	6.04E-02	7.36E-02	7.36E-02	7.36E-02	0	0	0
ec_runidle	3.39E-02	3.39E-02	3.39E-02	1.54E-01	1.54E-01	1.54E-01	0	0	0
ec_loss	0	0	0	0	0	0	1	1	1
ec_fc	7.93E-01	7.93E-01	7.93E-01	5.80E-01	5.80E-01	5.80E-01	0	0	0

Concentrations

16801

Concentration from AERMOD --->	10.08	10.08	10.08	1.98	1.98	1.98	8.04	8.04	8.04
Fuel Fraction--->	1	1	1	0.149	0.807	0.009	0.753	1.65E-05	0.076
Emiss Type Fraction--->	0.793	0.060	0.113	0.154	0.154	0.154	1	1	1
	Conc PM10_FUGEF	**Conc PM10_PMTW**	**ConcPM10_PMBW**	**ACUTE_Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**	**Conc_diesel TOG_RUNIDLLOSS**
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1.15E-01	2.52E-06	5.88E-02
	0	0	0	2.68E-06	5.06E-05	5.68E-07	0	0	0
	0	0	0	1.76E-07	7.48E-06	8.40E-08	0	0	0
	0	0	0	7.50E-06	2.14E-05	2.40E-07	0	0	0
	0	0	0	0	0	0	4.81E-02	1.05E-06	0
	0	0	0	0	0	0	1.71E-01	3.76E-06	6.35E-03
	0	0	0	0	0	0	2.65E-02	5.80E-07	2.05E-02
	0	0	0	0	0	0	3.63E-03	7.96E-08	0
	0	0	0	7.83E-04	4.22E-02	4.74E-04	4.08E-03	8.95E-08	7.60E-04
	0	0	0	0	0	0	9.42E-02	2.07E-06	5.94E-04
	0	0	0	0	0	0	7.38E-02	1.62E-06	2.01E-03
	0	0	0	0	0	0	8.35E-02	1.83E-06	6.70E-04
	0	0	0	0	0	0	9.68E-03	2.12E-07	1.09E-03
	0	0	0	0	0	0	4.33E-02	9.48E-07	2.07E-03
	0	0	0	0	0	0	8.47E-03	1.86E-07	2.52E-03
	0	0	0	0	0	0	2.73E-01	5.99E-06	1.36E-03
	0	0	0	0	0	0	3.01E-02	6.60E-07	2.03E-04
	0	0	0	0	0	0	4.14E-01	9.07E-06	1.96E-03
	0	0	0	0	0	0	0	0	7.80E-04
	0	0	0	0	0	0	9.59E-02	2.10E-06	1.66E-03
	0	0	0	0	0	0	2.18E-01	4.78E-06	9.78E-03
	0	0	0	4.61E-07	7.25E-05	8.14E-07	0	0	0
	0	0	0	0	6.20E-05	6.96E-07	0	0	0
	0	0	0	3.14E-06	1.76E-05	1.98E-07	0	0	0
	0	0	0	0	0	0	1.39E-02	3.05E-07	1.05E-05
	0	0	0	0	0	0	1.61E-01	3.53E-06	0
	0	0	0	6.68E-07	2.61E-06	2.93E-08	0	0	0
	5.25E-03	1.07E-06	1.29E-05	2.62E-06	4.70E-05	5.28E-07	0	0	0
	6.14E-03	1.75E-05	2.26E-03	1.16E-06	8.92E-06	1.00E-07	0	0	0
	6.39E-05	0	0	1.30E-06	9.02E-06	1.01E-07	0	0	0
	6.58E-04	3.05E-05	7.53E-04	6.19E-07	1.51E-05	1.69E-07	0	0	0
	2.09E-05	1.29E-05	9.63E-05	6.81E-07	1.74E-06	1.96E-08	0	0	0
	6.64E-05	0	9.29E-07	7.92E-06	2.55E-05	2.86E-07	0	0	0
	4.97E-04	0	7.98E-05	9.91E-07	5.24E-06	5.89E-08	0	0	0
	1.04E-03	7.84E-05	2.86E-02	3.11E-06	9.14E-05	1.03E-06	0	0	0
	1.79E-03	3.32E-06	4.27E-04	1.45E-06	8.22E-06	9.23E-08	0	0	0
	1.66E-05	1.22E-05	2.28E-05	8.06E-07	2.75E-06	3.09E-08	0	0	0

Max Hourly

Results from Glinda

Statistic	27821			27821			27821		
Max-1Hr	8.03	8.03	8.03	1.74	1.74	1.74	6.99	6.99	6.99
Fuel Fraction	PM10			PM2.5			TOG		
ft_gasoline	8.50E-01	8.50E-01	8.50E-01	8.08E-01	8.08E-01	8.08E-01	9.41E-01	9.41E-01	9.41E-01
ft_diesel	1.22E-01	1.22E-01	1.22E-01	1.73E-01	1.73E-01	1.73E-01	5.73E-02	5.73E-02	5.73E-02
ft_electric	1.62E-02	1.62E-02	1.62E-02	1.12E-02	1.12E-02	1.12E-02	0	0	0
ft_hybrid	1.05E-02	1.05E-02	1.05E-02	7.21E-03	7.21E-03	7.21E-03	2.33E-05	2.33E-05	2.33E-05
ft_ngas	1.03E-03	1.03E-03	1.03E-03	7.87E-04	7.87E-04	7.87E-04	1.39E-03	1.39E-03	1.39E-03
Emiss Type Fraction									
ec_brake	1.98E-01	1.98E-01	1.98E-01	3.16E-01	3.16E-01	3.16E-01	0	0	0
ec_tire	1.03E-01	1.03E-01	1.03E-01	1.18E-01	1.18E-01	1.18E-01	0	0	0
ec_runidle	2.52E-02	2.52E-02	2.52E-02	1.07E-01	1.07E-01	1.07E-01	0	0	0
ec_loss	0	0	0	0	0	0	1	1	1
ec_fc	6.73E-01	6.73E-01	6.73E-01	4.59E-01	4.59E-01	4.59E-01	0	0	0

Concentrations

	27821								
Concentration from AERMOD --->	8.03	8.03	8.03	1.74	1.74	1.74	6.99	6.99	6.99
Fuel Fraction--->	1	1	1	0.173	0.808	0.007	0.941	0.000	0.057
Emiss Type Fraction--->	0.673	0.103	0.198	0.107	0.107	0.107	1	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**ACUTE_Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**	**Conc_diesel TOG_RUNIDLLOSS**
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1.25E-01	3.10E-06	3.87E-02
	0	0	0	1.90E-06	3.09E-05	2.76E-07	0	0	0
	0	0	0	1.25E-07	4.57E-06	4.08E-08	0	0	0
	0	0	0	5.32E-06	1.31E-05	1.17E-07	0	0	0
	0	0	0	0	0	0	5.23E-02	1.30E-06	0.00E+00
	0	0	0	0	0	0	1.86E-01	4.62E-06	4.18E-03
	0	0	0	0	0	0	2.88E-02	7.14E-07	1.35E-02
	0	0	0	0	0	0	3.95E-03	9.79E-08	0
	0	0	0	5.55E-04	2.58E-02	2.30E-04	4.44E-03	1.10E-07	5.01E-04
	0	0	0	0	0	0	1.02E-01	2.54E-06	3.91E-04
	0	0	0	0	0	0	8.02E-02	1.99E-06	1.33E-03
	0	0	0	0	0	0	9.07E-02	2.25E-06	4.42E-04
	0	0	0	0	0	0	1.05E-02	2.61E-07	7.18E-04
	0	0	0	0	0	0	4.70E-02	1.17E-06	1.36E-03
	0	0	0	0	0	0	9.21E-03	2.28E-07	1.66E-03
	0	0	0	0	0	0	2.97E-01	7.36E-06	8.95E-04
	0	0	0	0	0	0	3.27E-02	8.11E-07	1.34E-04
	0	0	0	0	0	0	4.50E-01	1.12E-05	1.29E-03
	0	0	0	0	0	0	0	0	5.14E-04
	0	0	0	0	0	0	1.04E-01	2.58E-06	1.09E-03
	0	0	0	0	0	0	2.37E-01	5.88E-06	6.44E-03
	0	0	0	3.27E-07	4.42E-05	3.95E-07	0	0	0
	0	0	0	0	3.78E-05	3.38E-07	0	0	0
	0	0	0	2.23E-06	1.07E-05	9.59E-08	0	0	0
	0	0	0	0	0	0	1.51E-02	3.75E-07	6.88E-06
	0	0	0	0	0	0	1.75E-01	4.34E-06	0
	0	0	0	4.74E-07	1.59E-06	1.42E-08	0	0	0
	3.55E-03	1.45E-06	1.81E-05	1.86E-06	2.87E-05	2.56E-07	0	0	0
	4.15E-03	2.38E-05	3.17E-03	8.23E-07	5.45E-06	4.86E-08	0	0	0
	4.32E-05	0	0	9.21E-07	5.51E-06	4.92E-08	0	0	0
	4.45E-04	4.15E-05	1.05E-03	4.39E-07	9.21E-06	8.22E-08	0	0	0
	1.41E-05	1.76E-05	1.35E-04	4.83E-07	1.06E-06	9.49E-09	0	0	0
	4.49E-05	0	1.30E-06	5.62E-06	1.56E-05	1.39E-07	0	0	0
	3.36E-04	0	1.12E-04	7.02E-07	3.20E-06	2.86E-08	0	0	0
	7.00E-04	1.07E-04	4.00E-02	2.21E-06	5.58E-05	4.98E-07	0	0	0
	1.21E-03	4.53E-06	5.98E-04	1.03E-06	5.02E-06	4.48E-08	0	0	0
	1.12E-05	1.66E-05	3.19E-05	5.71E-07	1.68E-06	1.50E-08	0	0	0

Max Hourly

Results from Glinda

Statistic	27824			27824			27824		
Max-1Hr	51.73	51.73	51.73	10.65	10.65	10.65	41.95	41.95	41.95
Fuel Fraction	PM10			PM2.5			TOG		
ft_gasoline	8.22E-01	8.22E-01	8.22E-01	7.36E-01	7.36E-01	7.36E-01	9.41E-01	9.41E-01	9.41E-01
ft_diesel	1.47E-01	1.47E-01	1.47E-01	2.42E-01	2.42E-01	2.42E-01	5.78E-02	5.78E-02	5.78E-02
ft_electric	1.82E-02	1.82E-02	1.82E-02	1.31E-02	1.31E-02	1.31E-02	0	0	0
ft_hybrid	1.17E-02	1.17E-02	1.17E-02	8.46E-03	8.46E-03	8.46E-03	2.83E-05	2.83E-05	2.83E-05
ft_ngas	1.36E-03	1.36E-03	1.36E-03	1.08E-03	1.08E-03	1.08E-03	1.34E-03	1.34E-03	1.34E-03
Emiss Type Fraction									
ec_brake	9.94E-02	9.94E-02	9.94E-02	1.66E-01	1.66E-01	1.66E-01	0	0	0
ec_tire	1.18E-01	1.18E-01	1.18E-01	1.41E-01	1.41E-01	1.41E-01	0	0	0
ec_runidle	3.44E-02	3.44E-02	3.44E-02	1.55E-01	1.55E-01	1.55E-01	0	0	0
ec_loss	0	0	0	0	0	0	1	1	1
ec_fc	7.48E-01	7.48E-01	7.48E-01	5.37E-01	5.37E-01	5.37E-01	0	0	0

Concentrations

27824

	51.73	51.73	51.73	10.65	10.65	10.65	41.95	41.95	41.95
Concentration from AERMOD --->									
Fuel Fraction--->	1	1	1	0.242	0.736	0.008	0.941	2.83E-05	0.058
Emiss Type Fraction--->	0.748	0.118	0.099	0.155	0.155	0.155	1	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**ACUTE_Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**	**Conc_diesel TOG_RUNIDLLOSS**
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	7.51E-01	2.26E-05	2.34E-01
	0	0	0	2.35E-05	2.50E-04	2.87E-06	0	0	0
	0	0	0	1.55E-06	3.69E-05	4.24E-07	0	0	0
	0	0	0	6.58E-05	1.06E-04	1.21E-06	0	0	0
	0	0	0	0	0	0	3.14E-01	9.45E-06	0
	0	0	0	0	0	0	1.12E+00	3.37E-05	2.53E-02
	0	0	0	0	0	0	1.73E-01	5.20E-06	8.18E-02
	0	0	0	0	0	0	2.37E-02	7.13E-07	0
	0	0	0	6.87E-03	2.08E-01	2.39E-03	2.66E-02	8.02E-07	3.03E-03
	0	0	0	0	0	0	6.15E-01	1.85E-05	2.37E-03
	0	0	0	0	0	0	4.81E-01	1.45E-05	8.02E-03
	0	0	0	0	0	0	5.45E-01	1.64E-05	2.67E-03
	0	0	0	0	0	0	6.31E-02	1.90E-06	4.35E-03
	0	0	0	0	0	0	2.82E-01	8.50E-06	8.26E-03
	0	0	0	0	0	0	5.53E-02	1.66E-06	1.01E-02
	0	0	0	0	0	0	1.78E+00	5.37E-05	5.42E-03
	0	0	0	0	0	0	1.96E-01	5.91E-06	8.10E-04
	0	0	0	0	0	0	2.70E+00	8.13E-05	7.84E-03
	0	0	0	0	0	0	0	0	3.11E-03
	0	0	0	0	0	0	6.26E-01	1.88E-05	6.62E-03
	0	0	0	0	0	0	1.42E+00	4.29E-05	3.90E-02
	0	0	0	4.05E-06	3.57E-04	4.11E-06	0	0	0
	0	0	0	0	3.06E-04	3.51E-06	0	0	0
	0	0	0	2.76E-05	8.68E-05	9.98E-07	0	0	0
	0	0	0	0	0	0	9.08E-02	2.73E-06	4.17E-05
	0	0	0	0	0	0	1.05E+00	3.16E-05	0
	0	0	0	5.86E-06	1.29E-05	1.48E-07	0	0	0
	2.54E-02	1.07E-05	5.83E-05	2.30E-05	2.32E-04	2.66E-06	0	0	0
	2.97E-02	1.75E-04	1.02E-02	1.02E-05	4.40E-05	5.06E-07	0	0	0
	3.10E-04	0	0	1.14E-05	4.45E-05	5.12E-07	0	0	0
	3.19E-03	3.06E-04	3.39E-03	5.43E-06	7.44E-05	8.56E-07	0	0	0
	1.01E-04	1.29E-04	4.34E-04	5.97E-06	8.59E-06	9.88E-08	0	0	0
	3.22E-04	0	4.19E-06	6.95E-05	1.26E-04	1.44E-06	0	0	0
	2.41E-03	0	3.60E-04	8.69E-06	2.58E-05	2.97E-07	0	0	0
	5.01E-03	7.86E-04	1.29E-01	2.73E-05	4.51E-04	5.18E-06	0	0	0
	8.68E-03	3.33E-05	1.93E-03	1.27E-05	4.05E-05	4.66E-07	0	0	0
	8.04E-05	1.22E-04	1.03E-04	7.07E-06	1.36E-05	1.56E-07	0	0	0

Max Hourly

Results from Glinda

Statistic	30896			30896			30896		
Max-1Hr	15.92	15.92	15.92	3.34	3.34	3.34	12.32	12.32	12.32
Fuel Fraction	PM10			PM2.5			TOG		
ft_gasoline	8.38E-01	8.38E-01	8.38E-01	7.83E-01	7.83E-01	7.83E-01	9.38E-01	9.38E-01	9.38E-01
ft_diesel	1.32E-01	1.32E-01	1.32E-01	1.96E-01	1.96E-01	1.96E-01	6.02E-02	6.02E-02	6.02E-02
ft_electric	1.72E-02	1.72E-02	1.72E-02	1.21E-02	1.21E-02	1.21E-02	0	0	0
ft_hybrid	1.11E-02	1.11E-02	1.11E-02	7.81E-03	7.81E-03	7.81E-03	2.78E-05	2.78E-05	2.78E-05
ft_ngas	1.21E-03	1.21E-03	1.21E-03	9.55E-04	9.55E-04	9.55E-04	1.51E-03	1.51E-03	1.51E-03
Emiss Type Fraction									
ec_brake	1.64E-01	1.64E-01	1.64E-01	2.68E-01	2.68E-01	2.68E-01	0	0	0
ec_tire	1.10E-01	1.10E-01	1.10E-01	1.29E-01	1.29E-01	1.29E-01	0	0	0
ec_runidle	2.51E-02	2.51E-02	2.51E-02	1.10E-01	1.10E-01	1.10E-01	0	0	0
ec_loss	0	0	0	0	0	0	1	1	1
ec_fc	7.01E-01	7.01E-01	7.01E-01	4.93E-01	4.93E-01	4.93E-01	0	0	0

Concentrations

	30896								
Concentration from AERMOD --->	15.92	15.92	15.92	3.34	3.34	3.34	12.32	12.32	12.32
Fuel Fraction--->	1	1	1	0.196	0.783	0.008	0.938	2.78E-05	0.060
Emiss Type Fraction--->	0.701	0.110	0.164	0.110	0.110	0.110	1	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**ACUTE_Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**	**Conc_diesel TOG_RUNIDLLOSS**
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	2.20E-01	6.52E-06	7.17E-02
	0	0	0	4.24E-06	5.91E-05	5.89E-07	0	0	0
	0	0	0	2.79E-07	8.73E-06	8.71E-08	0	0	0
	0	0	0	1.19E-05	2.50E-05	2.49E-07	0	0	0
	0	0	0	0	0	0	9.19E-02	2.73E-06	0
	0	0	0	0	0	0	3.28E-01	9.71E-06	7.75E-03
	0	0	0	0	0	0	5.06E-02	1.50E-06	2.50E-02
	0	0	0	0	0	0	6.94E-03	2.06E-07	0
	0	0	0	1.24E-03	4.93E-02	4.91E-04	7.80E-03	2.31E-07	9.27E-04
	0	0	0	0	0	0	1.80E-01	5.34E-06	7.25E-04
	0	0	0	0	0	0	1.41E-01	4.18E-06	2.45E-03
	0	0	0	0	0	0	1.60E-01	4.73E-06	8.18E-04
	0	0	0	0	0	0	1.85E-02	5.48E-07	1.33E-03
	0	0	0	0	0	0	8.27E-02	2.45E-06	2.53E-03
	0	0	0	0	0	0	1.62E-02	4.80E-07	3.08E-03
	0	0	0	0	0	0	5.22E-01	1.55E-05	1.66E-03
	0	0	0	0	0	0	5.75E-02	1.71E-06	2.48E-04
	0	0	0	0	0	0	7.91E-01	2.34E-05	2.40E-03
	0	0	0	0	0	0	0	0	9.51E-04
	0	0	0	0	0	0	1.83E-01	5.43E-06	2.03E-03
	0	0	0	0	0	0	4.17E-01	1.24E-05	1.19E-02
	0	0	0	7.30E-07	8.46E-05	8.43E-07	0	0	0
	0	0	0	0	7.23E-05	7.21E-07	0	0	0
	0	0	0	4.98E-06	2.05E-05	2.05E-07	0	0	0
	0	0	0	0	0	0	2.66E-02	7.88E-07	1.28E-05
	0	0	0	0	0	0	3.08E-01	9.12E-06	0
	0	0	0	1.06E-06	3.04E-06	3.03E-08	0	0	0
	7.33E-03	3.06E-06	2.96E-05	4.15E-06	5.48E-05	5.47E-07	0	0	0
	8.57E-03	5.01E-05	5.18E-03	1.84E-06	1.04E-05	1.04E-07	0	0	0
	8.93E-05	0	0	2.05E-06	1.05E-05	1.05E-07	0	0	0
	9.19E-04	8.75E-05	1.72E-03	9.80E-07	1.76E-05	1.76E-07	0	0	0
	2.92E-05	3.70E-05	2.20E-04	1.08E-06	2.03E-06	2.03E-08	0	0	0
	9.27E-05	0	2.12E-06	1.25E-05	2.97E-05	2.96E-07	0	0	0
	6.94E-04	0	1.82E-04	1.57E-06	6.12E-06	6.10E-08	0	0	0
	1.45E-03	2.25E-04	6.54E-02	4.93E-06	1.07E-04	1.06E-06	0	0	0
	2.50E-03	9.54E-06	9.77E-04	2.29E-06	9.60E-06	9.57E-08	0	0	0
	2.32E-05	3.50E-05	5.21E-05	1.28E-06	3.21E-06	3.20E-08	0	0	0

Max Hourly

Results from Glinda
Statistic
Max-1Hr

Fuel Fraction
ft_gasoline
ft_diesel
ft_electric
ft_hybrid
ft_ngas

Emiss Type Fraction
ec_brake
ec_tire
ec_runidle
ec_loss
ec_fc

Sum of links											

Concentration from AERMOD --->
Fuel Fraction--->
Emiss Type Fraction--->

CAS	POLABBREV	Sum	Conc_PM10_FUGEF	Conc_PM10_PMTW	Conc_PM10_PMBW	ACUTE_Conc_diesel PM2.5_RUNIDL	Conc_gas PM2.5_RUNIDL	Conc_hybrid PM2.5_RUNIDL	Conc_gas TOG_RUNIDLLOSS	Conc_hybrid TOG_RUNIDLLOSS	Conc_diesel TOG_RUNIDLLOSS
9901	DieselExhPM	0	0	0	0	0	0	0	0	0	0
50000	Formaldehyde	1.61E+00	0	0	0	0	0	0	1.21E+00	3.48E-05	4.04E-01
50328	B[a]P	4.27E-04	0	0	0	3.23E-05	3.90E-04	4.30E-06	0	0	0
53703	D[a,h]anthracen	6.05E-05	0	0	0	2.13E-06	5.77E-05	6.36E-07	0	0	0
56553	B[a]anthracene	2.57E-04	0	0	0	9.05E-05	1.65E-04	1.82E-06	0	0	0
67561	Methanol	5.06E-01	0	0	0	0	0	0	5.06E-01	1.45E-05	0.00E+00
71432	Benzene	1.85E+00	0	0	0	0	0	0	1.80E+00	5.18E-05	4.36E-02
75070	Acetaldehyde	4.19E-01	0	0	0	0	0	0	2.78E-01	7.99E-06	1.41E-01
78933	MEK	3.82E-02	0	0	0	0	0	0	3.82E-02	1.10E-06	0
91203	Naphthalene	3.87E-01	0	0	0	9.44E-03	3.25E-01	3.59E-03	4.30E-02	1.23E-06	5.22E-03
95476	o-Xylene	9.96E-01	0	0	0	0	0	0	9.91E-01	2.85E-05	4.08E-03
95636	1,2,4TriMeBenze	7.90E-01	0	0	0	0	0	0	7.77E-01	2.23E-05	1.38E-02
100414	Ethyl Benzene	8.83E-01	0	0	0	0	0	0	8.78E-01	2.52E-05	4.60E-03
100425	Styrene	1.09E-01	0	0	0	0	0	0	1.02E-01	2.92E-06	7.49E-03
106990	1,3-Butadiene	4.69E-01	0	0	0	0	0	0	4.55E-01	1.31E-05	1.42E-02
107028	Acrolein	1.06E-01	0	0	0	0	0	0	8.91E-02	2.56E-06	1.73E-02
108383	m-Xylene	2.88E+00	0	0	0	0	0	0	2.87E+00	8.25E-05	9.33E-03
108678	1,3,5TriMeBenze	3.18E-01	0	0	0	0	0	0	3.17E-01	9.09E-06	1.39E-03
108883	Toluene	4.37E+00	0	0	0	0	0	0	4.35E+00	1.25E-04	1.35E-02
108952	Phenol	5.35E-03	0	0	0	0	0	0	0	0	5.35E-03
110543	Hexane	1.02E+00	0	0	0	0	0	0	1.01E+00	2.90E-05	1.14E-02
115071	Propylene	2.36E+00	0	0	0	0	0	0	2.29E+00	6.59E-05	6.71E-02
193395	In[1,2,3-cd]pyr	5.70E-04	0	0	0	5.56E-06	5.59E-04	6.16E-06	0	0	0
205992	B[b]fluoranthen	4.83E-04	0	0	0	0	4.78E-04	5.27E-06	0	0	0
218019	Chrysene	1.75E-04	0	0	0	3.79E-05	1.36E-04	1.50E-06	0	0	0
526738	1,2,3TriMeBenze	1.46E-01	0	0	0	0	0	0	1.46E-01	4.20E-06	7.18E-05
1634044	Me t-ButylEther	1.69E+00	0	0	0	0	0	0	1.69E+00	4.86E-05	0
3697243	5-MeChrysene	2.84E-05	0	0	0	8.06E-06	2.01E-05	2.22E-07	0	0	0
7439921	Lead	4.21E-02	4.16E-02	1.63E-05	1.19E-04	3.17E-05	3.62E-04	3.99E-06	0	0	0
7439965	Manganese	6.98E-02	4.86E-02	2.66E-04	2.08E-02	1.40E-05	6.88E-05	7.59E-07	0	0	0
7439976	Mercury	5.92E-04	5.06E-04	0.00E+00	0.00E+00	1.57E-05	6.96E-05	7.67E-07	0	0	0
7440020	Nickel	1.27E-02	5.21E-03	4.65E-04	6.92E-03	7.47E-06	1.16E-04	1.28E-06	0	0	0
7440382	Arsenic	1.27E-03	1.65E-04	1.97E-04	8.86E-04	8.22E-06	1.34E-05	1.48E-07	0	0	0
7440439	Cadmium	8.28E-04	5.26E-04	0.00E+00	8.54E-06	9.56E-05	1.96E-04	2.17E-06	0	0	0
7440484	Cobalt	4.72E-03	3.93E-03	0.00E+00	7.34E-04	1.20E-05	4.04E-05	4.46E-07	0	0	0
7440508	Copper	2.73E-01	8.19E-03	1.20E-03	2.63E-01	3.76E-05	7.05E-04	7.77E-06	0	0	0
7440622	Vanadium	1.82E-02	1.42E-02	5.07E-05	3.93E-03	1.75E-05	6.34E-05	6.99E-07	0	0	0
7782492	Selenium	5.58E-04	1.31E-04	1.86E-04	2.10E-04	9.72E-06	2.12E-05	2.34E-07	0	0	0

SANDAG Air Quality Modeling Inputs

HRA Calculation Example - Chronic and Cancer Annual Concentrations

	Emission Type -->	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles	Vehicles
	Species --->	PM10	PM10	PM10	PM2.5	PM2.5	PM2.5	TOG	TOG
	Fuel Type -->	all	all	all	Diesel	Gas	Hybrid	Gas	Hybrid
	Use for analysis ->	All vehicles - Cancer, Chronic, Acute	All vehicles - Cancer, Chronic, Acute	All vehicles - Cancer, Chronic, Acute	Diesel Cancer and Chronic	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute	Gasoline - Cancer, Chronic, Acute
	Glinda Species #--->	1	1	1	2	2	2	3	3
	Glinda Fuel Type #-->				2	1	4	1	4
CAS	**POLABBREV**	**frac_of_PM10_FUGEF**	**frac_of_PM10_PMTW**	**frac_of_PM10_PMBW**	**frac_of_diesel PM2.5_RUNIDL**	**frac_of_gas PM2.5_RUNIDL**	**frac_of_hybrid PM2.5_RUNIDL**	**frac_of_gas TOG_RUNIDLLOSS**	**frac_of_hybrid TOG_RUNIDLLOSS**
9901	DieselExhPM	0	0	0	1	0	0	0	0
50000	Formaldehyde	0	0	0	0	0	0	1.90E-02	1.90E-02
50328	B[a]P	0	0	0	0	2.05E-04	2.05E-04	0	0
53703	D[a,h]anthracen	0	0	0	0	3.04E-05	3.04E-05	0	0
56553	B[a]anthracene	9.80E-07	0	0	0	8.68E-05	8.68E-05	0	0
67561	Methanol	0	0	0	0	0	0	7.95E-03	7.95E-03
71432	Benzene	0	0	0	0	0	0	2.83E-02	2.83E-02
75070	Acetaldehyde	0	0	0	0	0	0	4.38E-03	4.38E-03
78933	MEK	0	0	0	0	0	0	6.00E-04	6.00E-04
91203	Naphthalene	0	0	0	0	1.71E-01	1.71E-01	6.75E-04	6.75E-04
95476	o-Xylene	0	0	0	0	0	0	1.56E-02	1.56E-02
95636	1,2,4TriMeBenze	0	0	0	0	0	0	1.22E-02	1.22E-02
100414	Ethyl Benzene	0	0	0	0	0	0	1.38E-02	1.38E-02
100425	Styrene	0	0	0	0	0	0	1.60E-03	1.60E-03
106990	1,3-Butadiene	0	0	0	0	0	0	7.15E-03	7.15E-03
107028	Acrolein	0	0	0	0	0	0	1.40E-03	1.40E-03
108383	m-Xylene	0	0	0	0	0	0	4.52E-02	4.52E-02
108678	1,3,5TriMeBenze	0	0	0	0	0	0	4.98E-03	4.98E-03
108883	Toluene	0	0	0	0	0	0	6.84E-02	6.84E-02
108952	Phenol	0	0	0	0	0	0	0	0
110543	Hexane	0	0	0	0	0	0	1.59E-02	1.59E-02
115071	Propylene	0	0	0	0	0	0	3.61E-02	3.61E-02
193395	In[1,2,3-cd]pyr	0	0	0	0	2.94E-04	2.94E-04	0	0
205992	B[b]fluoranthen	0	0	0	0	2.52E-04	2.52E-04	0	0
218019	Chrysene	0	0	0	0	7.14E-05	7.14E-05	0	0
526738	1,2,3TriMeBenze	0	0	0	0	0	0	2.30E-03	2.30E-03
1634044	Me t-ButylEther	0	0	0	0	0	0	2.66E-02	2.66E-02
3697243	5-MeChrysene	0	0	0	0	1.06E-05	1.06E-05	0	0
7439921	Lead	6.57E-04	1.75E-06	1.13E-05	0	1.91E-04	1.91E-04	0	0
7439965	Manganese	7.68E-04	2.86E-05	1.99E-03	0	3.62E-05	3.62E-05	0	0
7439976	Mercury	8.00E-06	0	0	0	3.66E-05	3.66E-05	0	0
7440020	Nickel	8.23E-05	5.00E-05	6.60E-04	0	6.13E-05	6.13E-05	0	0
7440382	Arsenic	2.62E-06	2.11E-05	8.45E-05	0	7.07E-06	7.07E-06	0	0
7440439	Cadmium	8.31E-06	0	8.15E-07	0	1.03E-04	1.03E-04	0	0
7440484	Cobalt	6.22E-05	0	7.00E-05	0	2.13E-05	2.13E-05	0	0
7440508	Copper	1.30E-04	1.29E-04	2.51E-02	0	3.71E-04	3.71E-04	0	0
7440622	Vanadium	2.24E-04	5.45E-06	3.75E-04	0	3.34E-05	3.34E-05	0	0
7782492	Selenium	2.08E-06	2.00E-05	2.00E-05	0	1.12E-05	1.12E-05	0	0

Annual

Results from Glinda

Statistic	16801			16801			16801	
Annual Avg	3.14E-02	3.14E-02	3.14E-02	6.47E-03	6.47E-03	6.47E-03	3.30E-02	3.30E-02
Fuel Fraction	PM10			PM2.5			TOG	
ft_gasoline	8.50E-01	8.50E-01	8.50E-01	8.07E-01	8.07E-01	8.07E-01	7.53E-01	7.53E-01
ft_diesel	9.83E-02	9.83E-02	9.83E-02	1.49E-01	1.49E-01	1.49E-01	7.57E-02	7.57E-02
ft_electric	1.92E-02	1.92E-02	1.92E-02	1.41E-02	1.41E-02	1.41E-02	0	0
ft_hybrid	1.24E-02	1.24E-02	1.24E-02	9.07E-03	9.07E-03	9.07E-03	1.65E-05	1.65E-05
ft_ngas	1.99E-02	1.99E-02	1.99E-02	2.03E-02	2.03E-02	2.03E-02	1.71E-01	1.71E-01
Emiss Type Fraction								
ec_brake	1.13E-01	1.13E-01	1.13E-01	1.93E-01	1.93E-01	1.93E-01	0	0
ec_tire	6.04E-02	6.04E-02	6.04E-02	7.36E-02	7.36E-02	7.36E-02	0	0
ec_runidle	3.39E-02	3.39E-02	3.39E-02	1.54E-01	1.54E-01	1.54E-01	0	0
ec_loss	0	0	0	0	0	0	1	1
ec_fc	7.93E-01	7.93E-01	7.93E-01	5.80E-01	5.80E-01	5.80E-01	0	0

Link --->	**16801**							
Concentration from AERMOD --->	0.03144858	0.03144858	0.03144858	0.006470376	0.00647038	0.006470376	0.032993	0.032993071
Fuel Fraction--->	1	1	1	0.149	0.807	0.009	0.753	1.65E-05
Emiss Type Fraction--->	0.793	0.060	0.113	0.154	0.154	0.154	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**
	0	0	0	1.48E-04	0	0	0	0
	0	0	0	0	0	0	4.73E-04	1.04E-08
	0	0	0	0	1.65E-07	1.85E-09	0	0
	0	0	0	0	2.44E-08	2.74E-10	0	0
	2.44E-08	0	0	0	6.97E-08	7.83E-10	0	0
	0	0	0	0	0	0	1.98E-04	4.33E-09
	0	0	0	0	0	0	7.04E-04	1.54E-08
	0	0	0	0	0	0	1.09E-04	2.38E-09
	0	0	0	0	0	0	1.49E-05	3.27E-10
	0	0	0	0	1.38E-04	1.55E-06	1.68E-05	3.68E-10
	0	0	0	0	0	0	3.87E-04	8.48E-09
	0	0	0	0	0	0	3.03E-04	6.64E-09
	0	0	0	0	0	0	3.43E-04	7.51E-09
	0	0	0	0	0	0	3.97E-05	8.71E-10
	0	0	0	0	0	0	1.78E-04	3.89E-09
	0	0	0	0	0	0	3.48E-05	7.62E-10
	0	0	0	0	0	0	1.12E-03	2.46E-08
	0	0	0	0	0	0	1.24E-04	2.71E-09
	0	0	0	0	0	0	1.70E-03	3.72E-08
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	3.94E-04	8.63E-09
	0	0	0	0	0	0	8.96E-04	1.96E-08
	0	0	0	0	2.36E-07	2.65E-09	0	0
	0	0	0	0	2.02E-07	2.27E-09	0	0
	0	0	0	0	5.74E-08	6.44E-10	0	0
	0	0	0	0	0	0	5.71E-05	1.25E-09
	0	0	0	0	0	0	6.61E-04	1.45E-08
	0	0	0	0	8.50E-09	9.55E-11	0	0
	1.64E-05	3.33E-09	4.03E-08	0	1.53E-07	1.72E-09	0	0
	1.92E-05	5.44E-08	7.06E-06	0	2.91E-08	3.27E-10	0	0
	1.99E-07	0	0	0	2.94E-08	3.30E-10	0	0
	2.05E-06	9.50E-08	2.35E-06	0	4.92E-08	5.53E-10	0	0
	6.52E-08	4.02E-08	3.00E-07	0	5.68E-09	6.38E-11	0	0
	2.07E-07	0	2.90E-09	0	8.31E-08	9.33E-10	0	0
	1.55E-06	0	2.49E-07	0	1.71E-08	1.92E-10	0	0
	3.23E-06	2.45E-07	8.92E-05	0	2.98E-07	3.35E-09	0	0
	5.59E-06	1.04E-08	1.33E-06	0	2.68E-08	3.01E-10	0	0
	5.18E-06	3.80E-08	7.11E-08	0	8.98E-09	1.01E-10	0	0

Annual

Results from Glinda

Statistic	27821			27821			27821	
Annual Avg	1.63E-01	1.63E-01	1.63E-01	3.50E-02	3.50E-02	3.50E-02	1.29E-01	1.29E-01
Fuel Fraction	PM10			PM2.5			TOG	
ft_gasoline	8.50E-01	8.50E-01	8.50E-01	8.08E-01	8.08E-01	8.08E-01	9.41E-01	9.41E-01
ft_diesel	1.22E-01	1.22E-01	1.22E-01	1.73E-01	1.73E-01	1.73E-01	5.73E-02	5.73E-02
ft_electric	1.62E-02	1.62E-02	1.62E-02	1.12E-02	1.12E-02	1.12E-02	0	0
ft_hybrid	1.05E-02	1.05E-02	1.05E-02	7.21E-03	7.21E-03	7.21E-03	2.33E-05	2.33E-05
ft_ngas	1.03E-03	1.03E-03	1.03E-03	7.87E-04	7.87E-04	7.87E-04	1.39E-03	1.39E-03
Emiss Type Fraction								
ec_brake	1.98E-01	1.98E-01	1.98E-01	3.16E-01	3.16E-01	3.16E-01	0	0
ec_tire	1.03E-01	1.03E-01	1.03E-01	1.18E-01	1.18E-01	1.18E-01	0	0
ec_runidle	2.52E-02	2.52E-02	2.52E-02	1.07E-01	1.07E-01	1.07E-01	0	0
ec_loss	0	0	0	0	0	0	1	1
ec_fc	6.73E-01	6.73E-01	6.73E-01	4.59E-01	4.59E-01	4.59E-01	0	0

Conc

Link --->	**27821**							
Concentration from AERMOD --->	0.1628595	0.16286	0.16286	0.03502176	0.03502176	0.03502176	0.128798	0.128797973
Fuel Fraction--->	1	1	1	0.1732	0.8076	0.0072	0.9412	0.0000
Emiss Type Fraction--->	0.673	0.103	0.198	0.107	0.107	0.107	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**
	0	0	0	6.49E-04	0	0	0	0
	0	0	0	0	0	0	2.31E-03	5.72E-08
	0	0	0	0	6.22E-07	5.55E-09	0	0
	0	0	0	0	9.19E-08	8.21E-10	0	0
	1.074E-07	0	0	0	2.63E-07	2.35E-09	0	0
	0	0	0	0	0	0	9.64E-04	2.39E-08
	0	0	0	0	0	0	3.43E-03	8.52E-08
	0	0	0	0	0	0	5.30E-04	1.32E-08
	0	0	0	0	0	0	7.27E-05	1.80E-09
	0	0	0	0	5.19E-04	4.63E-06	8.18E-05	2.03E-09
	0	0	0	0	0	0	1.89E-03	4.68E-08
	0	0	0	0	0	0	1.48E-03	3.67E-08
	0	0	0	0	0	0	1.67E-03	4.15E-08
	0	0	0	0	0	0	1.94E-04	4.81E-09
	0	0	0	0	0	0	8.67E-04	2.15E-08
	0	0	0	0	0	0	1.70E-04	4.21E-09
	0	0	0	0	0	0	5.47E-03	1.36E-07
	0	0	0	0	0	0	6.03E-04	1.50E-08
	0	0	0	0	0	0	8.29E-03	2.06E-07
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1.92E-03	4.77E-08
	0	0	0	0	0	0	4.37E-03	1.08E-07
	0	0	0	0	8.90E-07	7.95E-09	0	0
	0	0	0	0	7.61E-07	6.80E-09	0	0
	0	0	0	0	2.16E-07	1.93E-09	0	0
	0	0	0	0	0	0	2.79E-04	6.92E-09
	0	0	0	0	0	0	3.22E-03	8.00E-08
	0	0	0	0	3.20E-08	2.86E-10	0	0
	7.20E-05	2.95E-08	3.67E-07	0	5.77E-07	5.15E-09	0	0
	8.42E-05	4.83E-07	6.42E-05	0	1.10E-07	9.79E-10	0	0
	8.77E-07	0	0	0	1.11E-07	9.90E-10	0	0
	9.02E-06	8.42E-07	2.13E-05	0	1.85E-07	1.66E-09	0	0
	2.87E-07	3.56E-07	2.73E-06	0	2.14E-08	1.91E-10	0	0
	9.10E-07	0	2.63E-08	0	3.13E-07	2.79E-09	0	0
	6.81E-06	0	2.26E-06	0	6.44E-08	5.75E-10	0	0
	1.42E-05	2.17E-06	8.11E-04	0	1.12E-06	1.00E-08	0	0
	2.46E-05	9.18E-08	1.21E-05	0	1.01E-07	9.02E-10	0	0
	2.28E-07	3.37E-07	6.46E-07	0	3.38E-08	3.02E-10	0	0

Annual

Results from Glinda

Statistic	27824			27824			27824	
Annual Avg	8.16E-01	8.16E-01	8.16E-01	1.68E-01	1.68E-01	1.68E-01	6.80E-01	6.80E-01
Fuel Fraction	PM10			PM2.5			TOG	
ft_gasoline	8.22E-01	8.22E-01	8.22E-01	7.36E-01	7.36E-01	7.36E-01	9.41E-01	9.41E-01
ft_diesel	1.47E-01	1.47E-01	1.47E-01	2.42E-01	2.42E-01	2.42E-01	5.78E-02	5.78E-02
ft_electric	1.82E-02	1.82E-02	1.82E-02	1.31E-02	1.31E-02	1.31E-02	0	0
ft_hybrid	1.17E-02	1.17E-02	1.17E-02	8.46E-03	8.46E-03	8.46E-03	2.83E-05	2.83E-05
ft_ngas	1.36E-03	1.36E-03	1.36E-03	1.08E-03	1.08E-03	1.08E-03	1.34E-03	1.34E-03
Emiss Type Fraction								
ec_brake	9.94E-02	9.94E-02	9.94E-02	1.66E-01	1.66E-01	1.66E-01	0	0
ec_tire	1.18E-01	1.18E-01	1.18E-01	1.41E-01	1.41E-01	1.41E-01	0	0
ec_runidle	3.44E-02	3.44E-02	3.44E-02	1.55E-01	1.55E-01	1.55E-01	0	0
ec_loss	0	0	0	0	0	0	1	1
ec_fc	7.48E-01	7.48E-01	7.48E-01	5.37E-01	5.37E-01	5.37E-01	0	0

ntrations

Link --->	**27824**							
Concentration from AERMOD --->	0.81618182	0.81618182	0.81618182	0.168120575	0.16812058	0.168120575	0.679544	0.679543718
Fuel Fraction--->	1	1	1	0.242	0.736	0.008	0.941	2.83E-05
Emiss Type Fraction--->	0.748	0.118	0.099	0.155	0.155	0.155	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**
	0	0	0	6.30E-03	0	0	0	0
	0	0	0	0	0	0	1.22E-02	3.66E-07
	0	0	0	0	3.94E-06	4.53E-08	0	0
	0	0	0	0	5.83E-07	6.70E-09	0	0
	5.98E-07	0	0	0	1.67E-06	1.92E-08	0	0
	0	0	0	0	0	0	5.08E-03	1.53E-07
	0	0	0	0	0	0	1.81E-02	5.45E-07
	0	0	0	0	0	0	2.80E-03	8.43E-08
	0	0	0	0	0	0	3.84E-04	1.16E-08
	0	0	0	0	3.29E-03	3.78E-05	4.32E-04	1.30E-08
	0	0	0	0	0	0	9.96E-03	3.00E-07
	0	0	0	0	0	0	7.80E-03	2.35E-07
	0	0	0	0	0	0	8.82E-03	2.66E-07
	0	0	0	0	0	0	1.02E-03	3.08E-08
	0	0	0	0	0	0	4.57E-03	1.38E-07
	0	0	0	0	0	0	8.95E-04	2.70E-08
	0	0	0	0	0	0	2.89E-02	8.69E-07
	0	0	0	0	0	0	3.18E-03	9.58E-08
	0	0	0	0	0	0	4.37E-02	1.32E-06
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1.01E-02	3.05E-07
	0	0	0	0	0	0	2.30E-02	6.94E-07
	0	0	0	0	5.64E-06	6.49E-08	0	0
	0	0	0	0	4.83E-06	5.55E-08	0	0
	0	0	0	0	1.37E-06	1.58E-08	0	0
	0	0	0	0	0	0	1.47E-03	4.43E-08
	0	0	0	0	0	0	1.70E-02	5.12E-07
	0	0	0	0	2.03E-07	2.34E-09	0	0
	4.01E-04	1.69E-07	9.20E-07	0	3.66E-06	4.21E-08	0	0
	4.69E-04	2.76E-06	1.61E-04	0	6.95E-07	7.99E-09	0	0
	4.88E-06	0	0	0	7.03E-07	8.08E-09	0	0
	5.03E-05	4.82E-06	5.35E-05	0	1.18E-06	1.35E-08	0	0
	1.60E-06	2.04E-06	6.85E-06	0	1.36E-07	1.56E-09	0	0
	5.07E-06	0	6.61E-08	0	1.98E-06	2.28E-08	0	0
	3.79E-05	0	5.68E-06	0	4.08E-07	4.69E-09	0	0
	7.91E-05	1.24E-05	2.04E-03	0	7.12E-06	8.19E-08	0	0
	1.37E-04	5.25E-07	3.04E-05	0	6.40E-07	7.36E-09	0	0
	1.27E-06	1.93E-06	1.62E-06	0	2.14E-07	2.47E-09	0	0

Annual

Results from Glinda

Statistic	30896			30896			30896	
Annual Avg	4.01E-01	4.01E-01	4.01E-01	8.47E-02	8.47E-02	8.47E-02	3.08E-01	3.08E-01
Fuel Fraction	PM10			PM2.5			TOG	
ft_gasoline	8.38E-01	8.38E-01	8.38E-01	7.83E-01	7.83E-01	7.83E-01	9.38E-01	9.38E-01
ft_diesel	1.32E-01	1.32E-01	1.32E-01	1.96E-01	1.96E-01	1.96E-01	6.02E-02	6.02E-02
ft_electric	1.72E-02	1.72E-02	1.72E-02	1.21E-02	1.21E-02	1.21E-02	0	0
ft_hybrid	1.11E-02	1.11E-02	1.11E-02	7.81E-03	7.81E-03	7.81E-03	2.78E-05	2.78E-05
ft_ngas	1.21E-03	1.21E-03	1.21E-03	9.55E-04	9.55E-04	9.55E-04	1.51E-03	1.51E-03
Emiss Type Fraction								
ec_brake	1.64E-01	1.64E-01	1.64E-01	2.68E-01	2.68E-01	2.68E-01	0	0
ec_tire	1.10E-01	1.10E-01	1.10E-01	1.29E-01	1.29E-01	1.29E-01	0	0
ec_runidle	2.51E-02	2.51E-02	2.51E-02	1.10E-01	1.10E-01	1.10E-01	0	0
ec_loss	0	0	0	0	0	0	1	1
ec_fc	7.01E-01	7.01E-01	7.01E-01	4.93E-01	4.93E-01	4.93E-01	0	0

Link --->	**30896**							
Concentration from AERMOD --->	0.40102461	0.40102461	0.40102461	0.08471487	0.08471487	0.084714874	0.307683	0.30768304
Fuel Fraction--->	1	1	1	0.196	0.783	0.008	0.938	2.78E-05
Emiss Type Fraction--->	0.701	0.110	0.164	0.110	0.110	0.110	1	1
	Conc_PM10_FUGEF	**Conc_PM10_PMTW**	**Conc_PM10_PMBW**	**Conc_diesel PM2.5_RUNIDL**	**Conc_gas PM2.5_RUNIDL**	**Conc_hybrid PM2.5_RUNIDL**	**Conc_gas TOG_RUNIDLLOSS**	**Conc_hybrid TOG_RUNIDLLOSS**
	0	0	0	1.83E-03	0	0	0	0
	0	0	0	0	0	0	5.49E-03	1.63E-07
	0	0	0	0	1.50E-06	1.49E-08	0	0
	0	0	0	0	2.22E-07	2.21E-09	0	0
	2.76E-07	0	0	0	6.34E-07	6.32E-09	0	0
	0	0	0	0	0	0	2.30E-03	6.80E-08
	0	0	0	0	0	0	8.18E-03	2.42E-07
	0	0	0	0	0	0	1.26E-03	3.74E-08
	0	0	0	0	0	0	1.73E-04	5.13E-09
	0	0	0	0	1.25E-03	1.25E-05	1.95E-04	5.78E-09
	0	0	0	0	0	0	4.50E-03	1.33E-07
	0	0	0	0	0	0	3.52E-03	1.04E-07
	0	0	0	0	0	0	3.98E-03	1.18E-07
	0	0	0	0	0	0	4.62E-04	1.37E-08
	0	0	0	0	0	0	2.06E-03	6.12E-08
	0	0	0	0	0	0	4.04E-04	1.20E-08
	0	0	0	0	0	0	1.30E-02	3.86E-07
	0	0	0	0	0	0	1.44E-03	4.26E-08
	0	0	0	0	0	0	1.97E-02	5.85E-07
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	4.58E-03	1.36E-07
	0	0	0	0	0	0	1.04E-02	3.09E-07
	0	0	0	0	2.15E-06	2.14E-08	0	0
	0	0	0	0	1.84E-06	1.83E-08	0	0
	0	0	0	0	5.21E-07	5.20E-09	0	0
	0	0	0	0	0	0	6.64E-04	1.97E-08
	0	0	0	0	0	0	7.68E-03	2.28E-07
	0	0	0	0	7.73E-08	7.70E-10	0	0
	1.85E-04	7.72E-08	7.45E-07	0	1.39E-06	1.39E-08	0	0
	2.16E-04	1.26E-06	1.30E-04	0	2.64E-07	2.64E-09	0	0
	2.25E-06	0	0	0	2.67E-07	2.66E-09	0	0
	2.31E-05	2.20E-06	4.33E-05	0	4.47E-07	4.46E-09	0	0
	7.35E-07	9.32E-07	5.55E-06	0	5.16E-08	5.14E-10	0	0
	2.34E-06	0	5.35E-08	0	7.55E-07	7.52E-09	0	0
	1.75E-05	0	4.60E-06	0	1.55E-07	1.55E-09	0	0
	3.64E-05	5.67E-06	1.65E-03	0	2.71E-06	2.70E-08	0	0
	6.31E-05	2.40E-07	2.46E-05	0	2.44E-07	2.43E-09	0	0
	5.84E-07	8.82E-07	1.31E-06	0	8.16E-08	8.13E-10	0	0

Annual

Results from Glinda

Statistic

Annual Avg

Fuel Fraction

ft_gasoline

ft_diesel

ft_electric

ft_hybrid

ft_ngas

Emiss Type Fraction

ec_brake

ec_tire

ec_runidle

ec_loss

ec_fc

Sum of links

Link --->

Concentration from AERMOD --->

Fuel Fraction--->

Emiss Type Fraction--->

CAS	POLABBREV	Sum	Conc_PM10_FUGEF	Conc_PM10_PMTW	Conc_PM10_PMBW	Conc_diesel PM2.5_RUNIDL	Conc_gas PM2.5_RUNIDL	Conc_hybrid PM2.5_RUNIDL	Conc_gas TOG_RUNIDLLOSS	Conc_hybrid TOG_RUNIDLLOSS
9901	DieselExhPM	8.93E-03	0	0	0	8.93E-03	0	0	0	0
50000	Formaldehyde	2.04E-02	0	0	0	0	0	0	2.04E-02	5.97E-07
50328	B[a]P	6.30E-06	0	0	0	0	6.23E-06	6.77E-08	0	0
53703	D[a,h]anthracen	9.31E-07	0	0	0	0	9.21E-07	1.00E-08	0	0
56553	B[a]anthracene	3.67E-06	1.01E-06	0	0	0	2.63E-06	2.86E-08	0	0
67561	Methanol	8.54E-03	0	0	0	0	0	0	8.54E-03	2.49E-07
71432	Benzene	3.04E-02	0	0	0	0	0	0	3.04E-02	8.88E-07
75070	Acetaldehyde	4.70E-03	0	0	0	0	0	0	4.70E-03	1.37E-07
78933	MEK	6.44E-04	0	0	0	0	0	0	6.44E-04	1.88E-08
91203	Naphthalene	5.97E-03	0	0	0	0	5.19E-03	5.64E-05	7.25E-04	2.12E-08
95476	o-Xylene	1.67E-02	0	0	0	0	0	0	1.67E-02	4.89E-07
95636	1,2,4TriMeBenze	1.31E-02	0	0	0	0	0	0	1.31E-02	3.83E-07
100414	Ethyl Benzene	1.48E-02	0	0	0	0	0	0	1.48E-02	4.33E-07
100425	Styrene	1.72E-03	0	0	0	0	0	0	1.72E-03	5.02E-08
106990	1,3-Butadiene	7.68E-03	0	0	0	0	0	0	7.68E-03	2.24E-07
107028	Acrolein	1.50E-03	0	0	0	0	0	0	1.50E-03	4.39E-08
108383	m-Xylene	4.85E-02	0	0	0	0	0	0	4.85E-02	1.42E-06
108678	1,3,5TriMeBenze	5.34E-03	0	0	0	0	0	0	5.34E-03	1.56E-07
108883	Toluene	7.35E-02	0	0	0	0	0	0	7.35E-02	2.15E-06
108952	Phenol	0	0	0	0	0	0	0	0	0
110543	Hexane	1.70E-02	0	0	0	0	0	0	1.70E-02	4.97E-07
115071	Propylene	3.87E-02	0	0	0	0	0	0	3.87E-02	1.13E-06
193395	In[1,2,3-cd]pyr	9.01E-06	0	0	0	0	8.92E-06	9.69E-08	0	0
205992	B[b]fluoranthen	7.71E-06	0	0	0	0	7.63E-06	8.29E-08	0	0
218019	Chrysene	2.19E-06	0	0	0	0	2.17E-06	2.35E-08	0	0
526738	1,2,3TriMeBenze	2.47E-03	0	0	0	0	0	0	2.47E-03	7.21E-08
1634044	Me t-ButylEther	2.86E-02	0	0	0	0	0	0	2.86E-02	8.34E-07
3697243	5-MeChrysene	3.24E-07	0	0	0	0	3.21E-07	3.49E-09	0	0
7439921	Lead	6.82E-04	6.74E-04	2.79E-07	2.07E-06	0	5.78E-06	6.28E-08	0	0
7439965	Manganese	1.16E-03	7.88E-04	4.56E-06	3.63E-04	0	1.10E-06	1.19E-08	0	0
7439976	Mercury	9.33E-06	8.21E-06	0	0	0	1.11E-06	1.21E-08	0	0
7440020	Nickel	2.15E-04	8.45E-05	7.96E-06	1.21E-04	0	1.86E-06	2.02E-08	0	0
7440382	Arsenic	2.17E-05	2.68E-06	3.37E-06	1.54E-05	0	2.14E-07	2.33E-09	0	0
7440439	Cadmium	1.18E-05	8.53E-06	0	1.49E-07	0	3.14E-06	3.41E-08	0	0
7440484	Cobalt	7.72E-05	6.38E-05	0	1.28E-05	0	6.45E-07	7.01E-09	0	0
7440508	Copper	4.75E-03	1.33E-04	2.05E-05	4.58E-03	0	1.13E-05	1.22E-07	0	0
7440622	Vanadium	3.00E-04	2.30E-04	8.68E-07	6.85E-05	0	1.01E-06	1.10E-08	0	0
7782492	Selenium	9.31E-06	2.13E-06	3.19E-06	3.65E-06	0	3.39E-07	3.68E-09	0	0
			2.00E-03	4.07E-05	5.17E-03	8.93E-03	5.25E-03	5.70E-05	3.35E-01	9.79E-06

SANDAG Air Quality Modeling Inputs
HRA Calculation Example - Resulting Cancer Risk

Cancer

CAS	POLABBREV	InhalationCancerSlopeFactor	MolWtCorrection	30R	Resident CEF	Concentration	Cancer Risk
9901	DieselExhPM	1.1	1	1	676.63	8.93E-03	6.65E-06
50000	Formaldehyde	0.021	1	1	676.63	2.04E-02	2.90E-07
50328	B[a]P	3.9	1	27.5	676.63	6.30E-06	4.57E-07
53703	D[a,h]anthracen	4.1	1	9.41	676.63	9.31E-07	2.43E-08
56553	B[a]anthracene	0.39	1	27.5	676.63	3.67E-06	2.66E-08
67561	Methanol	0	1	1	676.63	8.54E-03	0
71432	Benzene	0.1	1	1	676.63	3.04E-02	2.06E-06
75070	Acetaldehyde	0.01	1	1	676.63	4.70E-03	3.18E-08
78933	MEK	0	1	1	676.63	6.44E-04	0
91203	Naphthalene	0.12	1	1	676.63	5.97E-03	4.85E-07
95476	o-Xylene	0	1	1	676.63	1.67E-02	0
95636	1,2,4TriMeBenze	0	1	1	676.63	1.31E-02	0
100414	Ethyl Benzene	0.0087	1	1	676.63	1.48E-02	8.73E-08
100425	Styrene	0	1	1	676.63	1.72E-03	0
106990	1,3-Butadiene	0.6	1	1	676.63	7.68E-03	3.12E-06
107028	Acrolein	0	1	1	676.63	1.50E-03	0
108383	m-Xylene	0	1	1	676.63	4.85E-02	0
108678	1,3,5TriMeBenze	0	1	1	676.63	5.34E-03	0
108883	Toluene	0	1	1	676.63	7.35E-02	0
108952	Phenol	0	1	1	676.63	0	0
110543	Hexane	0	1	1	676.63	1.70E-02	0
115071	Propylene	0	1	1	676.63	3.87E-02	0
193395	In[1,2,3-cd]pyr	0.39	1	27.5	676.63	9.01E-06	6.54E-08
205992	B[b]fluoranthen	0.39	1	27.5	676.63	7.71E-06	5.59E-08
218019	Chrysene	0.039	1	27.5	676.63	2.19E-06	1.59E-09
526738	1,2,3TriMeBenze	0	1	1	676.63	2.47E-03	0
1634044	Me t-ButylEther	0.0018	1	1	676.63	2.86E-02	3.48E-08
3697243	5-MeChrysene	3.9	1	27.5	676.63	3.24E-07	2.35E-08
7439921	Lead	0.042	1	11.8	676.63	6.82E-04	2.30E-07
7439965	Manganese	0	1	1	676.63	1.16E-03	0
7439976	Mercury	0	1	1	676.63	9.33E-06	0
7440020	Nickel	0.91	1	1	676.63	2.15E-04	1.32E-07
7440382	Arsenic	12	1	10.7	676.63	2.17E-05	1.88E-06
7440439	Cadmium	15	1	1	676.63	1.18E-05	1.20E-07
7440484	Cobalt	27	1	1	676.63	7.72E-05	1.41E-06
7440508	Copper	0	1	1	676.63	4.75E-03	0
7440622	Vanadium	0	1	1	676.63	3.00E-04	0
7782492	Selenium	0	1	1	676.63	9.31E-06	0
Sum							**1.72E-05**

SANDAG Air Quality Modeling Inputs

HRA Calculation Example - Resulting Chronic Risk

Chronic

CAS	POLABBREV	InhalationChronicREL	ChrR	MolWtCorrection	InhalationChroniccCV_	InhalationChroniccCNS_	InhalationChroniccIMMUN_	InhalationChroniccKIDNEY_	InhalationChroniccGILV_	InhalationChroniccREPRO_DEVEL_	InhalationChroniccRESP_	InhalationChroniccSKIN_	InhalationChroniccEYE_	InhalationChroniccBONE_TEETH_	InhalationChroniccENDO_	InhalationChroniccBLOOD_	InhalationChroniccODOR_	InhalationChronicGENERAL_	Concentration	HQ	InhalationChroniccCV_	InhalationChroniccCNS_	InhalationChroniccIMMUN_	InhalationChroniccKIDNEY_	InhalationChroniccGILV_	InhalationChroniccREPRO_DEVEL_	InhalationChroniccRESP_	InhalationChroniccSKIN_	InhalationChroniccEYE_	InhalationChroniccBONE_TEETH_	InhalationChroniccENDO_	InhalationChroniccBLOOD_	InhalationChroniccODOR_	InhalationChroniccGENERAL_
9901	DieselExhPM	5	1.00E+00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	8.93E-03	1.79E-03	0	0	0	0	0	0	1.79E-03	0	0	0	0	0	0	0
50000	Formaldehyde	9	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2.04E-02	2.27E-03	0	0	0	0	0	0	2.27E-03	0	0	0	0	0	0	0
50328	B[a]P	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.30E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53703	D[a,h]anthracen	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.31E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56553	B[a]anthracene	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.67E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67561	Methanol	4000	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8.54E-03	2.13E-06	0	0	0	0	0	2.13E-06	0	0	0	0	0	0	0	0
71432	Benzene	3	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3.04E-02	1.01E-02	0	0	0	0	0	0	0	0	0	0	0	1.01E-02	0	0
75070	Acetaldehyde	140	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4.70E-03	3.36E-05	0	0	0	0	0	0	3.36E-05	0	0	0	0	0	0	0
78933	MEK	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.44E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91203	Naphthalene	9	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5.97E-03	6.64E-04	0	0	0	0	0	0	6.64E-04	0	0	0	0	0	0	0
95476	o-Xylene	700	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	1.67E-02	2.39E-05	0	2.39E-05	0	0	0	0	2.39E-05	0	2.4E-05	0	0	0	0	0
95636	1,2,4TriMeBenze	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1.31E-02	3.28E-03	0	3.28E-03	0	0	0	0	0	0	0	0	0	0	0	0
100414	Ethyl Benzene	2000	1	1	0	0	0	1	1	1	0	0	0	0	1	0	0	0	1.48E-02	7.41E-06	0	0	0	7.41E-06	7.41E-06	7.41E-06	0	0	0	0	7.41E-06	0	0	0
100425	Styrene	900	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1.72E-03	1.91E-06	0	1.9E-06	0	0	0	0	0	0	0	0	0	0	0	0
106990	1,3-Butadiene	2	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	7.68E-03	3.84E-03	0	0	0	0	0	3.84E-03	0	0	0	0	0	0	0	0
107028	Acrolein	0.35	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1.50E-03	4.30E-03	0	0	0	0	0	0	4.30E-03	0	0	0	0	0	0	0
108383	m-Xylene	700	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	4.85E-02	6.93E-05	0	6.93E-05	0	0	0	0	6.93E-05	0	6.93E-05	0	0	0	0	0
108678	1,3,5TriMeBenze	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5.34E-03	1.34E-03	0	1.34E-03	0	0	0	0	0	0	0	0	0	0	0	0
108883	Toluene	420	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7.35E-02	1.75E-04	0	0	0	0	0	0	0	0	1.75E-04	0	0	0	0	0
108952	Phenol	200	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110543	Hexane	7000	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1.70E-02	2.43E-06	0	2.43E-06	0	0	0	0	0	0	0	0	0	0	0	0
115071	Propylene	3000	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3.87E-02	1.29E-05	0	0	0	0	0	0	1.29E-05	0	0	0	0	0	0	0
193395	In[1,2,3-cd]pyr	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.01E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205992	B[b]fluoranthen	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.71E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218019	Chrysene	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.19E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
526738	1,2,3TriMeBenze	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2.47E-03	6.18E-04	0	6.18E-04	0	0	0	0	0	0	0	0	0	0	0	0
1634044	Me t-ButylEther	8000	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2.86E-02	3.57E-06	0	0	0	3.57E-06	3.57E-06	0	0	0	3.57E-06	0	0	0	0	0
3697243	5-MeChrysene	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.24E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7439921	Lead	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.82E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7439965	Manganese	0.09	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1.16E-03	1.29E-02	0	1.29E-02	0	0	0	0	0	0	0	0	0	0	0	0
7439976	Mercury	0.03	4.089	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	9.33E-06	1.27E-03	0	1.27E-03	0	1.27E-03	0	1.27E-03	0	0	0	0	0	0	0	0
7440020	Nickel	0.014	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2.15E-04	1.53E-02	0	0	0	0	0	0	1.53E-02	0	0	0	0	1.53E-02	0	0
7440382	Arsenic	0.015	97.5	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	2.17E-05	1.41E-01	1.41E-01	1.41E-01	0	0	0	1.41E-01	1.41E-01	1.41E-01	0	0	0	0	0	0
7440439	Cadmium	0.02	2.09	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1.18E-05	1.24E-03	0	0	0	1.24E-03	0	0	1.24E-03	0	0	0	0	0	0	0
7440484	Cobalt	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.72E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7440508	Copper	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.75E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7440622	Vanadium	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.00E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7782492	Selenium	20	225	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	9.31E-06	1.05E-04	1.05E-04	1.05E-04	0	0	1.05E-04	0	0	0	0	0	0	0	0	0
																				Sum	0.14	0.16	0	0.003	0.0001	0.15	0.17	0.14	0.0003	0	7.41E-06	0.03	0	0
																				MAX	0.17													

SANDAG Air Quality Modeling Inputs

HRA Calculation Example - Resulting Acute Risk

Acute

CAS	POLABBREV	AcuteREL	MolWtCorrection	AcuteCV_	AcuteCNS_	AcuteIMMUN_	AcuteKIDNEY_	AcuteGILV_	AcuteREPRO_DEVEL	AcuteRESP_	AcuteSKIN_	AcuteEYE_	AcuteBONE_TEETH_	AcuteENDO_	AcuteBLOOD_	AcuteODOR_	AcuteGENERAL_	Concentration
9901	DieselExhPM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50000	Formaldehyde	55	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1.61E+00
50328	B[a]P	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.27E-04
53703	D[a,h]anthracen	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.05E-05
56553	B[a]anthracene	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.57E-04
67561	Methanol	28000	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5.06E-01
71432	Benzene	27	1	0	0	1	0	0	1	0	0	0	0	0	1	0	0	1.85E+00
75070	Acetaldehyde	470	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4.19E-01
78933	MEK	13000	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3.82E-02
91203	Naphthalene	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.87E-01
95476	o-Xylene	22000	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	9.96E-01
95636	1,2,4TriMeBenze	2400	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7.90E-01
100414	Ethyl Benzene	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.83E-01
100425	Styrene	21000	1	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1.09E-01
106990	1,3-Butadiene	660	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4.69E-01
107028	Acrolein	2.5	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1.06E-01
108383	m-Xylene	22000	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	2.88E+00
108678	1,3,5TriMeBenze	2400	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3.18E-01
108883	Toluene	5000	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	4.37E+00
108952	Phenol	5800	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	5.35E-03
110543	Hexane	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.02E+00
115071	Propylene	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.36E+00
193395	In[1,2,3-cd]pyr	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.70E-04
205992	B[b]fluoranthen	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.83E-04
218019	Chrysene	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.75E-04
526738	1,2,3TriMeBenze	2400	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1.46E-01
1634044	Me t-ButylEther	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.69E+00
3697243	5-MeChrysene	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.84E-05
7439921	Lead	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.21E-02
7439965	Manganese	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.98E-02
7439976	Mercury	0.6	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	5.92E-04
7440020	Nickel	0.2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1.27E-02
7440382	Arsenic	0.2	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1.27E-03
7440439	Cadmium	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.28E-04
7440484	Cobalt	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.72E-03
7440508	Copper	100	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2.73E-01
7440622	Vanadium	30	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1.82E-02
7782492	Selenium	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.58E-04

CAS	POLABBREV	HQ	AcuteCV_	AcuteCNS_	AcuteIMMUN_	AcuteKIDNEY_	AcuteGILV_	AcuteREPRO_DEVEL	AcuteRESP_	AcuteSKIN_	AcuteEYE_	AcuteBONE_TEETH	AcuteENDO_	AcuteBLOOD_	AcuteODOR_	AcuteGENERAL_
9901	DieselExhPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50000	Formaldehyde	2.94E-02	0	0	0	0	0	0	0	0	2.94E-02	0	0	0	0	0
50328	B[a]P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53703	D[a,h]anthracen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56553	B[a]anthracene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67561	Methanol	1.81E-05	0	1.81E-05	0	0	0	0	0	0	0	0	0	0	0	0
71432	Benzene	6.84E-02	0	0	6.84E-02	0	0	6.84E-02	0	0	0	0	0	6.84E-02	0	0
75070	Acetaldehyde	8.92E-04	0	0	0	0	0	0	8.92E-04	0	8.92E-04	0	0	0	0	0
78933	MEK	2.94E-06	0	0	0	0	0	0	2.94E-06	0	2.94E-06	0	0	0	0	0
91203	Naphthalene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95476	o-Xylene	4.53E-05	0	4.53E-05	0	0	0	0	4.53E-05	0	4.5E-05	0	0	0	0	0
95636	1,2,4TriMeBenze	3.29E-04	0	3.29E-04	0	0	0	0	0	0	0	0	0	0	0	0
100414	Ethyl Benzene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100425	Styrene	5.21E-06	0	0	0	0	0	5.21E-06	5.21E-06	0	5.2E-06	0	0	0	0	0
106990	1,3-Butadiene	7.11E-04	0	0	0	0	0	7.11E-04	0	0	0	0	0	0	0	0
107028	Acrolein	4.26E-02	0	0	0	0	0	0	4.26E-02	0	4.26E-02	0	0	0	0	0
108383	m-Xylene	1.31E-04	0	1.31E-04	0	0	0	0	1.31E-04	0	1.31E-04	0	0	0	0	0
108678	1,3,5TriMeBenze	1.33E-04	0	1.33E-04	0	0	0	0	0	0	0	0	0	0	0	0
108883	Toluene	8.73E-04	0	8.73E-04	0	0	0	0	8.73E-04	0	8.73E-04	0	0	0	0	0
108952	Phenol	9.23E-07	0	0	0	0	0	0	9.23E-07	0	9.23E-07	0	0	0	0	0
110543	Hexane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115071	Propylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193395	In[1,2,3-cd]pyr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205992	B[b]fluoranthen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218019	Chrysene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
526738	1,2,3TriMeBenze	6.10E-05	0	6.10E-05	0	0	0	0	0	0	0	0	0	0	0	0
1634044	Me t-ButylEther	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3697243	5-MeChrysene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7439921	Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7439965	Manganese	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7439976	Mercury	9.87E-04	0	9.87E-04	0	0	0	9.87E-04	0	0	0	0	0	0	0	0
7440020	Nickel	6.36E-02	0	0	6.36E-02	0	0	0	0	0	0	0	0	0	0	0
7440382	Arsenic	6.35E-03	6.35E-03	6.35E-03	0	0	0	6.35E-03	0	0	0	0	0	0	0	0
7440439	Cadmium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7440484	Cobalt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7440508	Copper	2.73E-03	0	0	0	0	0	0	2.73E-03	0	0	0	0	0	0	0
7440622	Vanadium	6.08E-04	0	0	0	0	0	0	6.08E-04	0	6.08E-04	0	0	0	0	0
7782492	Selenium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sum	0.006	0.009	0.13	0	0	0.08	0.05	0	0.07	0	0	0.07	0	0
		MAX	0.13													

Link 27826

2022 PM_{10}

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID PM_10
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         8.3726791E-007 1.459 8  1.357
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.44441557 0.44441557 0.44441557
0.27936717 0.27936717 0.27936717
   EMISFACT GLNK         HROFDY  1.15269723 1.15269723 1.15269723
1.69018388 1.69018388 1.69018388
   EMISFACT GLNK         HROFDY  1.69018388 1.69018388 1.69018388
1.50184473 1.50184473 1.50184473
   EMISFACT GLNK         HROFDY  1.50184473 0.44441557 0.44441557
0.44441557 0.44441557 0.44441557
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

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   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826

2022 $PM_{2.5}$

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID PM_25
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         1.8004706E-007 1.459 8  1.357
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.42030246 0.42030246 0.42030246
0.30750564 0.30750564 0.30750564
   EMISFACT GLNK         HROFDY  1.17778570 1.17778570 1.17778570
1.74187711 1.74187711 1.74187711
   EMISFACT GLNK         HROFDY  1.74187711 1.74187711 1.74187711
1.43261091 1.43261091 1.43261091
   EMISFACT GLNK         HROFDY  1.43261091 0.42030246 0.42030246
0.42030246 0.42030246 0.42030246
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826
2022 TOG

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID TOG
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         6.3229272E-007 1.459 8  1.357
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.46696829 0.46696829 0.46696829
0.25108574 0.25108574 0.25108574
   EMISFACT GLNK         HROFDY  1.12960170 1.12960170 1.12960170
1.64131782 1.64131782 1.64131782
   EMISFACT GLNK         HROFDY  1.64131782 1.64131782 1.64131782
1.56857112 1.56857112 1.56857112
   EMISFACT GLNK         HROFDY  1.56857112 0.46696829 0.46696829
0.46696829 0.46696829 0.46696829
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826
2035 PM_{10}

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID PM_10
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK          AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK          7.2723824E-007 1.473 8  1.370
   AREAVERT GLNK           485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK           485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK           485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK           485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK          HROFDY  0.42034774 0.42034774 0.42034774
0.30579149 0.30579149 0.30579149
   EMISFACT GLNK          HROFDY  1.23038835 1.23038835 1.23038835
1.72116326 1.72116326 1.72116326
   EMISFACT GLNK          HROFDY  1.72116326 1.72116326 1.72116326
1.42542476 1.42542476 1.42542476
   EMISFACT GLNK          HROFDY  1.42542476 0.42034774 0.42034774
0.42034774 0.42034774 0.42034774
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826
2035 $PM_{2.5}$

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID PM_25
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         1.4481153E-007 1.473 8  1.370
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.40402561 0.40402561 0.40402561
0.32791038 0.32791038 0.32791038
   EMISFACT GLNK         HROFDY  1.24306567 1.24306567 1.24306567
1.75731383 1.75731383 1.75731383
   EMISFACT GLNK         HROFDY  1.75731383 1.75731383 1.75731383
1.37774600 1.37774600 1.37774600
   EMISFACT GLNK         HROFDY  1.37774600 0.40402561 0.40402561
0.40402561 0.40402561 0.40402561
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**    RECTABLE ALLAVE FIRST
**    PLOTFILE 1 ALL FIRST plot.1.txt
**    PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826
2035 TOG

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID TOG
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         3.1315474E-007 1.473 8  1.370
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.44247058 0.44247058 0.44247058
0.28314658 0.28314658 0.28314658
   EMISFACT GLNK         HROFDY  1.23377704 1.23377704 1.23377704
1.65709526 1.65709526 1.65709526
   EMISFACT GLNK         HROFDY  1.65709526 1.65709526 1.65709526
1.49172324 1.49172324 1.49172324
   EMISFACT GLNK         HROFDY  1.49172324 0.44247058 0.44247058
0.44247058 0.44247058 0.44247058
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826

2050 PM_{10}

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID PM_10
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         6.8699406E-007 1.490 8  1.386
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.41409900 0.41409900 0.41409900
0.34356181 0.34356181 0.34356181
   EMISFACT GLNK         HROFDY  1.21552594 1.21552594 1.21552594
1.73926736 1.73926736 1.73926736
   EMISFACT GLNK         HROFDY  1.73926736 1.73926736 1.73926736
1.39358515 1.39358515 1.39358515
   EMISFACT GLNK         HROFDY  1.39358515 0.41409900 0.41409900
0.41409900 0.41409900 0.41409900
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826

2050 $PM_{2.5}$

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID PM_25
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         1.3459654E-007 1.490 8  1.386
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.39937392 0.39937392 0.39937392
0.37058055 0.37058055 0.37058055
   EMISFACT GLNK         HROFDY  1.22265612 1.22265612 1.22265612
1.76934753 1.76934753 1.76934753
   EMISFACT GLNK         HROFDY  1.76934753 1.76934753 1.76934753
1.35230337 1.35230337 1.35230337
   EMISFACT GLNK         HROFDY  1.35230337 0.39937392 0.39937392
0.39937392 0.39937392 0.39937392
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
   DISCCART   471500.00   3634200.00    0.00
   DISCCART   472000.00   3629700.00    0.00
   DISCCART   472000.00   3630200.00    0.00
   DISCCART   472000.00   3630700.00    0.00
   DISCCART   472000.00   3631200.00    0.00
   DISCCART   472000.00   3631700.00    0.00
   DISCCART   472000.00   3632200.00    0.00
   DISCCART   472000.00   3632700.00    0.00
   DISCCART   472000.00   3633200.00    0.00
   DISCCART   472000.00   3633700.00    0.00
   DISCCART   472000.00   3634200.00    0.00
   DISCCART   472000.00   3634700.00    0.00
```

```
   DISCCART   472500.00   3627700.00    0.00
   DISCCART   472500.00   3628200.00    0.00
   DISCCART   472500.00   3628700.00    0.00
   DISCCART   472500.00   3629200.00    0.00
   DISCCART   472500.00   3629700.00    0.00
   DISCCART   472500.00   3630200.00    0.00
   DISCCART   472500.00   3630700.00    0.00
   DISCCART   472500.00   3631200.00    0.00
   DISCCART   472500.00   3631700.00    0.00
   DISCCART   472500.00   3632200.00    0.00
   DISCCART   472500.00   3632700.00    0.00
   DISCCART   472500.00   3633200.00    0.00
   DISCCART   472500.00   3633700.00    0.00
   DISCCART   472500.00   3634200.00    0.00
   DISCCART   472500.00   3634700.00    0.00
   DISCCART   472500.00   3635200.00    0.00
   DISCCART   473000.00   3625700.00    0.00
   DISCCART   473000.00   3626200.00    0.00
   DISCCART   473000.00   3626700.00    0.00
   DISCCART   473000.00   3627200.00    0.00
   DISCCART   473000.00   3627700.00    0.00
   DISCCART   473000.00   3628200.00    0.00
   DISCCART   473000.00   3628700.00    0.00
   DISCCART   473000.00   3629200.00    0.00
   DISCCART   473000.00   3629700.00    0.00
   DISCCART   473000.00   3630200.00    0.00
   DISCCART   473000.00   3630700.00    0.00
   DISCCART   473000.00   3631200.00    0.00
   DISCCART   473000.00   3631700.00    0.00
   DISCCART   473000.00   3632200.00    0.00
   DISCCART   473000.00   3632450.00    0.00
   DISCCART   473000.00   3632700.00    0.00
   DISCCART   473000.00   3632950.00    0.00
   DISCCART   473000.00   3633200.00    0.00
   DISCCART   473000.00   3633450.00    0.00
   DISCCART   473000.00   3633700.00    0.00
   DISCCART   473000.00   3633950.00    0.00
   DISCCART   473000.00   3634200.00    0.00
   DISCCART   473000.00   3634450.00    0.00
   DISCCART   473000.00   3634700.00    0.00
   DISCCART   473000.00   3635200.00    0.00
   DISCCART   473000.00   3635700.00    0.00
   DISCCART   473250.00   3630700.00    0.00
   DISCCART   473250.00   3630950.00    0.00
   DISCCART   473250.00   3631200.00    0.00
   DISCCART   473250.00   3631450.00    0.00
   DISCCART   473250.00   3631700.00    0.00
   DISCCART   473250.00   3631950.00    0.00
   DISCCART   473250.00   3632200.00    0.00
**
** Additional 50000+ receptors go here
**
RE FINISHED
**
```

```
ME STARTING
   SURFFILE met.sfc
   PROFFILE met.pfl
   SURFDATA 23188 2020
   UAIRDATA 3190 2020
   PROFBASE 205.0 METERS
ME FINISHED
**
OU STARTING
**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
OU FINISHED
```

Link 27826
2050 TOG

```
** GLINDA Modeling Platform
CO STARTING
   TITLEONE GLINDA Single Link Run
   TITLETWO Link hwycov_id 27826
   MODELOPT CONC FLAT FASTALL
   AVERTIME 1
   URBANOPT 628534
   POLLUTID TOG
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "linkrun.err"
CO FINISHED
**
SO STARTING
   LOCATION GLNK         AREAPOLY   485540.071  3620668.391          0.0
   SRCPARAM GLNK         2.2709044E-007 1.490 8  1.386
   AREAVERT GLNK          485540.071 3620668.391 485566.949 3620667.143
   AREAVERT GLNK          485592.442 3620667.360 485696.869 3620678.504
   AREAVERT GLNK          485695.447 3620691.828 485591.683 3620680.722
   AREAVERT GLNK          485567.214 3620680.536 485540.698 3620681.776
   EMISFACT GLNK         HROFDY  0.43619518 0.43619518 0.43619518
0.31988371 0.31988371 0.31988371
   EMISFACT GLNK         HROFDY  1.22248720 1.22248720 1.22248720
1.68140994 1.68140994 1.68140994
   EMISFACT GLNK         HROFDY  1.68140994 1.68140994 1.68140994
1.44871655 1.44871655 1.44871655
   EMISFACT GLNK         HROFDY  1.44871655 0.43619518 0.43619518
0.43619518 0.43619518 0.43619518
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
RE STARTING
** Receptor Count : 169192
   DISCCART   471000.00   3633200.00    0.00
   DISCCART   471000.00   3633700.00    0.00
   DISCCART   471500.00   3631200.00    0.00
   DISCCART   471500.00   3631700.00    0.00
   DISCCART   471500.00   3632200.00    0.00
   DISCCART   471500.00   3632700.00    0.00
   DISCCART   471500.00   3633200.00    0.00
   DISCCART   471500.00   3633700.00    0.00
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   PROFFILE met.pfl
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ME FINISHED
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**   RECTABLE ALLAVE FIRST
**   PLOTFILE 1 ALL FIRST plot.1.txt
**   PLOTFILE ANNUAL ALL plot.ann.txt
   POSTFILE 1 ALL UNFORM post.bin
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Attachment 4

COBRA Health Effects Memorandum

Memorandum

To: Poonam Boparai, Kathie Washington, and Matthew McFalls, Ascent

From: James Westbrook, BlueScape Environmental

Date: August 18, 2025

Subject: SANDAG 2025 Regional Plan Environmental Impact Report: Health Impact Analysis Using the Co-Benefits Risk Assessment (COBRA) Screening Tool

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This memorandum describes a health impact analysis (HIA) that was prepared for the SANDAG 2025 Regional Plan Environmental Impact Report (EIR) to evaluate impacts from regional particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers ($PM_{2.5}$) emissions. The HIA was completed using the United States Environmental Protection Agency's (USEPA's) Co-Benefits Risk Assessment (COBRA) screening tool as an accompanying report to the Air Quality Technical Report (AQTR) appendix to the EIR.

The potential change in $PM_{2.5}$ emissions within San Diego County was reviewed from the 2022 baseline year (using 2022 mass emissions estimates from the AQTR) to horizon years 2035 and 2050. Only $PM_{2.5}$ was reviewed because, although overall emissions will decrease across categories, $PM_{2.5}$ emissions associated with both vehicle exhaust and paved road dust are expected to increase in locations where vehicle traffic is anticipated to substantially increase. In addition, the AQTR concluded that localized significant $PM_{2.5}$ impacts may occur at locations near high-ADT roadways in urban center areas and new development areas. PM_{10} impacts were not assessed in the COBRA HIA because health impact functions built into COBRA only consider health outcomes associated with $PM_{2.5}$ and ozone emissions. $PM_{2.5}$ and ozone are well established pollutants in terms of peer-reviewed epidemiological evidence and the concentration-response function, making them the most suitable for modeling.[1]

Ozone impacts were not assessed because overall emissions of oxides of nitrogen (NO_X) and Volatile Organic Compounds (VOC), i.e., ozone precursors, decreased in the 2035 and 2050 horizon years. Additionally, since ozone impacts are generated from atmospheric reactions of NO_X and VOC on a regional scale, it is not expected that there would be significant localized ozone impacts, as with $PM_{2.5}$. The HIA study concludes that implementation of the SANDAG 2025 Regional Plan would result in a net health benefit due to county-wide reductions in $PM_{2.5}$ emissions in horizon years 2035 and 2050.

SANDAG 2025 Regional Plan HIA Approach

This technical study describes the work completed to satisfy the Supreme Court's EIR evidentiary requirements as applied to the SANDAG AQTR for the proposed Plan. BlueScape completed health impacts screening work to support the HIA as described in this memo. The USEPA's COBRA health impacts screening tool was used to assess the impact of air pollutant emission changes on $PM_{2.5}$ air pollution concentrations and translate this change in $PM_{2.5}$ concentrations into health effect outcomes.[2] BlueScape completed this analysis using annual $PM_{2.5}$ emissions totals by category, including on-road vehicles, rail, and paved road dust, for the change in emissions from baseline year 2022 to future years 2035 and 2050. The emissions are presented in Table 14 of the AQTR and are shown in Table 1.

Table 1
Net Change in Annual $PM_{2.5}$ Emissions from Baseline Year (2022) to 2035 and 2050 (Tons/Year)[1]

Emissions Category in COBRA	2035	2050
Highway Vehicles (on-road exhaust)	-48.18	-58.41
Paved roads (on road dust)	20.55	32.53
Railroads (Passenger and Freight Rail)	1.30	-9.02
Total Net Change, All Categories	**-26.34**	**-34.90**

[1] Emissions are presented as pounds per day in Table 14 of the AQTR. These emissions were converted to tons per year by dividing the pounds per day values from the AQTR by 2,000 to convert to tons and by multiplying by 365 to convert to tons per year.

The USEPA's COBRA health impacts screening tool can explore how changes in air pollution, specifically $PM_{2.5}$ and ozone, from a policy, program, or other action can affect human health at the county, state, regional, or national levels.

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[1] Estimating PM2.5- and Ozone-Attributable Health Benefits: 2024 Update, USEPA, June 2024. https://www.epa.gov/system/files/documents/2024-06/estimating-pm2.5-and-ozone-attributable-health-benefits-tsd-2024.pdf
[2] COBRA Health Impacts Screening Tool, USEPA, Revised March 2025. https://www.epa.gov/cobra

COBRA generates tabulated outcomes showing air quality and human health impacts from emissions of $PM_{2.5}$, sulfur dioxide (SO_2), NO_X, ammonia (NH_3), and VOCs that result from an action. Built into COBRA are emissions inventories, a simplified air quality model, and health impact equations ready for use, based on assumptions that the USEPA currently uses as reasonable best estimates.

COBRA uses a series of health impact functions, taken from the peer-reviewed epidemiological literature, to estimate how changes in outdoor air quality result in changes in the incidence of a variety of health outcomes (e.g., premature mortality, heart attacks, asthma exacerbation, lost workdays). Incidence refers to the number of new cases of a health outcome over a specified time period. In addition, COBRA multiplies the change in incidence for each health outcome by a monetary value specific to that outcome. COBRA outputs the Health Effects and Valuation Results, which includes a table of nationwide results due to the transport of outdoor air pollutants between counties and states. COBRA also provides health benefits and health outcomes in all individual counties and states in the contiguous United States. For the purposes of this HIA, only the results for San Diego County are presented. The output results table provides county-level changes in air quality (e.g., total annual average $PM_{2.5}$ concentration in micrograms per cubic meter [$\mu g/m^3$]), and incidence of each health endpoint. COBRA provides estimates on changes in mortality, infant mortality, nonfatal heart attacks, respiratory hospital admissions, cardiovascular hospital admissions, acute bronchitis, emergency room visits, work loss days, cardiac arrests, strokes, Parkinson’s disease, Alzheimer’s disease, lung cancer, hay fever/rhinitis, and asthma exacerbation.

The change in incidence is not necessarily a whole number because COBRA calculates small statistical risk reductions or increases that are then aggregated over the entire population. Estimates of health outcomes have a direct relationship with population density; areas with higher population density tend to see higher health benefits of reduced emissions than less dense areas. This is because there are more people breathing cleaner air in the areas with higher population density. The reverse would also be true where areas with higher population density tend to see higher adverse health consequences of increased emissions compared to less dense areas.

COBRA contains detailed emission estimates by county of $PM_{2.5}$, SO_2, NO_X, and VOCs for the year 2016, and detailed emission projections for 2023 and 2028, as developed by the USEPA. If the user wishes to evaluate emissions from any years other than 2016, 2023, or 2028, custom baseline and scenario year emissions data can be input into COBRA. In this study, BlueScape used 2022 $PM_{2.5}$ mass emissions as a custom baseline emissions input. BlueScape then created two emissions scenarios, one for 2035 and one for 2050. In each scenario, the net increase or decrease in $PM_{2.5}$ emissions from the baseline year was input into the model, by category. These scenarios account for traffic and rail (both passenger and freight) emissions increases or decreases associated with the SANDAG 2025 Regional Plan throughout San Diego County. Table 1 shows the net change from 2022 baseline $PM_{2.5}$ emissions in 2035 and 2050 that were input into the model.

Additionally, COBRA requires input of population, health incidence, and valuation data sets, corresponding to the scenario analysis year. Population data by age was provided by SANDAG for 2035 and 2050 and input into the model as custom population data sets. The SANDAG population data sets were used instead of the default COBRA population data sets because they are considered to be more current and representative population projections for San Diego County. Health incidence and valuation data sets for 2035 and 2050 were downloaded from USEPA's database of COBRA Future Input Files,[3] and imported into COBRA. The COBRA default health effect function dataset was retained for this study. The default health dataset relies on an up-to-date assessment of the published scientific literature to ascertain the relationship between particulate matter and adverse human health effects.

A summary of data inputs into the COBRA model is shown below in Table 2.

Table 2
COBRA Data Inputs

Data Input	Source of Data
Baseline Emissions Data	2022 SANDAG Regional Plan Mass Emissions
Scenario Year Emissions Data	2035 and 2050 SANDAG Regional Plan Mass Emissions
Scenario Year Population Data Sets	2035 and 2050 Population Data Sets, by Age, from SANDAG
Health Incidence and Valuation Data Sets	COBRA Future Year Input Files for 2035 and 2050 from USEPA
Health Effect Functions	COBRA Default Health Functions, Based Upon Published Scientific Literature

Evaluation of the Project's Health Effects

COBRA-generated health outcomes from the two scenario years are shown in Table 3 below. For San Diego County, reductions in $PM_{2.5}$-related health outcomes attributed to Project-related decreases in ambient air concentrations in 2035 and 2050 included mortality, incidence of outcomes such as asthma, lung cancer, and strokes, work loss days, and number of hospital / emergency room visits. As shown in Table 3, estimated mortalities avoided due to emission reductions in Plan years is 0.88 (the negative in the value -0.88 means an outcome reduction) in 2035 and 1.27 in 2050. For context, between 2021-

[3] COBRA Future Input Files, USEPA, updated May 2025.
https://www.epa.gov/cobra/cobra-future-input-files

2023, the California Department of Public Health (CDPH) reported that San Diego County had an average of 25,033 deaths per year and a crude death rate of 746 mortalities per 100,000 population.[4] Mortalities avoided due to Plan emissions reductions in 2035 and 2050 are less than 0.01% of the total county-wide annual mortalities, based upon CDPH statistics.

Table 3
COBRA Health Outcome Results

Health Outcome	**Change in Health Outcomes by Scenario Year Due to $PM_{2.5}$ Emissions Reductions* 2035**	**Change in Health Outcomes by Scenario Year Due to $PM_{2.5}$ Emissions Reductions* 2050**
Mortality, High estimate	-0.88	-1.27
Infant Mortality	-0.00046	-0.0005
Incidence of Asthma	-0.96	-1.21
Incidence of Hay Fever	-6.39	-8.20
ER Visits, Respiratory	-0.20	-0.27
Hospital Admissions, Respiratory	-0.03	-0.05
Nonfatal Heart Attacks	-0.31	-0.46
Minor Restricted Activity Days	-339	-441
Work Loss Days	-57.5	-74.6
Incidence of Lung Cancer	-0.04	-0.05
Hospital Admissions, Various Diseases**	-0.37	-0.57
Incidence of Stroke	-0.03	-0.04
Incidence of Out of Hospital Cardiac Arrest	-0.01	-0.01
ER Visits, Cardiac Outcomes	-0.13	-0.18

* Negative numbers indicate a decrease in incidence or reduction in outcome
**Cardio-, cerebro- and peripheral vascular disease, Alzheimer's disease, and Parkinson's disease

Applicability of COBRA as a Modeling Tool and Uncertainties

Conclusions derived from COBRA as a modeling tool should be made with consideration of the applicability of the tool and uncertainties related to the model's functionality to assess the impact of air pollutant emission changes on $PM_{2.5}$ air pollution concentrations and translate this into health effect outcomes.

The USEPA states that COBRA is a valid modeling tool for state and local governments to (1) better understand the potential for clean energy to enhance air quality, health, and well-being, (2) design or select program

[4] CDPH 2025. County Health Status Profiles 2025, California Department of Public Health. Accessed July 25, 2025. https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx

options that maximize benefits, (3) build support for clean energy investments based on the air quality and health benefits, (4) narrow a list of policy options to those that should be evaluated using more sophisticated air quality models, (5) present information about localized health benefits in easy–to–interpret tables, and (6) support a balanced decision-making process that considers both the potential costs and benefits of policy options.[5] The USEPA has published a list of projects that have used COBRA, which supports that the tool is a better fit for broad analyses, such as policies and programs undertaken by state governments, rather than an analysis for an individual site-level project.

The COBRA model's underlying infrastructure to evaluate clean energy projects by estimating health outcomes from air pollution changes is also well-suited for assessing the SANDAG 2025 Regional Plan. Given the Plan's county-wide scope alteration to regional emissions, COBRA offers a relevant framework for analyzing associated health effects. In this study, COBRA is used specifically to quantify the health benefits resulting from these emissions changes, rather than to compare policy alternatives. COBRA's ability to process large-scale emissions data, estimate resulting pollution levels, and link those to health outcomes makes it a valuable tool for understanding the public health implications of implementing the Plan. However, there is uncertainty surrounding the values of key components of COBRA. For example, baseline incidence values are best estimates of county-wide health outcome incidences and prevalences for the baseline year input into the model, but in some cases county-level data is not available and national-level estimates are used instead. Sources of baseline incidence data built into COBRA include the Centers for Disease Control (CDC), the U.S Census Bureau, the Agency for Healthcare Research and Quality (AHRQ), the National Health Interview Survey (NHIS), and peer-reviewed epidemiological literature. Health impact functions are based on data from epidemiological literature on the impacts of $PM_{2.5}$ and ozone on public health; however, this relationship between air quality and public health may differ in different locations or contexts. In general, epidemiological studies may be subject to limitations or uncertainties, including selection bias and confounding factors like underlying health conditions.

COBRA estimates particulate matter and ozone levels using a Source-Receptor (S-R) Matrix developed by the USEPA. The S-R matrix is a simplified approach for air quality modeling derived from the outputs of a more complex model: the Comprehensive Air Quality Model with Extensions (CAMx), which tracks the contribution of air pollutant emissions at sources to concentrations at receptors. Though COBRA's use of the S-R matrix is a reduced complexity methodology as compared to photochemical grid models, it has been shown to perform well at estimating the magnitude and spatial features of changes predicted by photochemical transport models for emissions scenarios on a

[5] USEPA 2025. Why Use COBRA?. United States Environmental Protection Agency. Accessed July 28, 2025. Available at: https://www.epa.gov/cobra/why-use-cobra-0

regional scale.[6] However, COBRA is unable to generate localized health impact results beyond county-level resolution. Therefore, the county-wide COBRA results may underestimate or overestimate outcomes at more localized areas, depending on the spatial variation of $PM_{2.5}$ emissions impacts due to the Plan.

Due to these limitations and uncertainties associated with use of the COBRA model, results should not be misinterpreted as an exact calculation of something as complex as criteria air pollutant dispersion or photochemical modeling, or as correlating a given level of emissions with specific health effects.

Conclusions

The HIA results presented in this memo estimated from the COBRA model show that there are no expected increases in adverse health outcomes due to the $PM_{2.5}$ emissions associated with implementation of the SANDAG 2025 Regional Plan. With consideration of the uncertainties described in this memo, adverse health outcomes are expected to be avoided due to the overall decrease in $PM_{2.5}$ emissions to 2035 and 2050, even with the increase in paved road $PM_{2.5}$ emissions.

[6] Baker et al. Source-Receptor Relationship Between Precursor Emissions of O_3 and $PM_{2.5}$ Air Pollution Impacts. *Environmental Science & Technology* **2023** *57* (39), 14626-14637 DOI: 10.1021/acs.est.3c03317