

APPENDIX C

Stockton Source Apportionment

Stockton CERP

San Joaquin Valley Air Pollution Control District

STATIONARY SOURCE EMISSIONS INVENTORY

A community emissions inventory is the compilation of criteria pollutant and air toxics emissions data from air pollution sources that are within the community. The stationary source community emissions inventory includes emissions of volatile organic compounds & reactive organic gases (VOC/ROG), oxides of nitrogen (NO_x), particulate matter of 2.5 microns (PM_{2.5}), and toxic air contaminants (e.g. diesel PM).

The District has longstanding experience working with regulated facilities and collecting emissions inventory data on an annual basis from these facilities. The District's current criteria emissions inventory reporting processes provides an annual assessment of emissions from permitted facilities in the Valley. The inventory collection process begins early in the calendar year by requesting emissions-related information from stationary sources of pollution for the prior calendar year, using streamlined processes and forms developed over years of experience working with industry. The District then verifies or calculates emissions based on the inventory data received by the regulated facilities in the Valley.

Methodology

The emissions inventory represents actual emissions from stationary sources. The actual emissions are typically based one of the following general quantification methods:

$$\text{Emissions (ton-pollutant/yr)} = \text{Process Rate (ton-throughput/yr)} \\ \times \text{Emission Factor (ton-pollutant/ton-throughput)}$$

$$\text{Emissions (ton-pollutant/yr)} = \text{Fuel Use (gal combusted/yr)} \\ \times \text{Emission Factor (ton-pollutant/gal combusted)}$$

$$\text{Emissions (ton-pollutant/yr)} = \text{Fuel Use (SCF combusted/yr)} \\ \times \text{Emission Factor (SCF combusted)}$$

The District relies on the regulated facility owners and operators to submit accurate process rate and/or fuel use data, and identify the approved emission factors as well identify necessary updates to those emission factors. Emission factors are established based on the best available information, and according to the following overarching data quality hierarchy:

1. Continuous Emissions Monitoring (CEM) on the equipment
2. Periodic source test on the equipment
3. Manufacturer's guarantee on the equipment
4. Continuous measurement for similarly configured emission sources
5. Source testing data for similar emission sources
6. Permitted emission limits and emission factors established during permitting actions and listed on the permit.
7. AP-42 or other state-approved industry derived emission factors.

Stationary Source Facility-Level Emissions Inventories

Based on the emissions inventory gathering process described above, the table below summarizes the emissions inventory for each District permitted facility in the Stockton Community for year 2018.

Table Notes:

- The facilities listed below are identified in alphabetical order.
- Not all facilities emit all pollutants
- Facilities first operating in 2018 have no reported inventory for 2018
- Values have been rounded to two decimal places

Table 1: Year 2018 Emissions Inventory for District Permitted Facilities

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	4	ACE ARMATURE & MOTOR SHOP (JOSHUA IRIS)	0.10	0.01	0.01
N	86	MCM14 CORP	0.00	1.39	0.00
N	103	ABDO THABIT NASHIR	0.00	0.09	0.00
N	150	DURAFLAME WEST	0.04	0.03	1.41
N	151	CALIFORNIA WATER SERVICE	0.01	0.02	0.00
N	153	LEHIGH SOUTHWEST CEMENT COMPANY	0.00	0.00	0.68
N	157	CALIFORNIA AMMONIA CO	0.04	0.02	0.03
N	172	CANNON DRY CLEANING COMPANY	0.00	0.00	0.00
N	175	MOBIL STOCKTON #1/ABDO NASHIR	0.00	0.11	0.00
N	227	PENNY NEWMAN GRAIN COMPANY	0.00	0.00	0.91
N	228	CONTRACT COATINGS	0.00	4.07	2.71
N	258	SRH FOOD & GAS MARKET	0.00	0.45	0.00
N	270	METROPOLITAN STEVEDORE COMPANY	0.00	0.00	0.00
N	285	DIAMOND FOODS, LLC	0.29	0.12	0.63
N	298	BEST EXPRESS FOODS INC	0.00	0.00	0.00
N	389	HOGAN MFG INC	0.01	1.06	0.22
N	400	HI-GRADE CLEANERS	0.00	0.06	0.00
N	454	GSG GAS AND MART	0.00	0.10	0.00
N	524	N.J. MCCUTCHEN, INC.	0.00	0.35	0.21
N	549	MIRACLE MILE MARKET	0.00	0.14	0.00
N	553	CONCRETE, INC.	0.00	0.00	2.54
N	577	NEWARK SIERRA PAPERBOARD CORP.	0.01	0.00	0.00
N	629	SCHUFF STEEL COMPANY	0.00	0.00	0.05
N	645	DTE STOCKTON, LLC	95.68	1.98	13.84
N	655	WESTWAY FEED PRODUCTS LLC	0.00	0.00	0.00
N	690	RITE WAY CLEANERS	0.00	0.03	0.00
N	691	CALPORTLAND COMPANY (STOCKTON WEST)	0.00	0.00	0.47
N	722	SAN JOAQUIN COUNTY	0.05	0.06	0.00
N	742	SEPULVEDA'S TRUCK PAINTING	0.00	0.10	0.05
N	788	STATE OF CA. 2ND DIST. AG ASSO	0.00	0.00	0.00
N	800	CITY OF STOCKTON	0.01	0.07	0.00
N	805	STOCKTON, CITY OF	0.00	0.07	0.00
N	810	STOCKTON TRI-INDUSTRIES, INC	0.00	4.64	1.39
N	811	STOCKTON RWCF	3.90	1.07	0.32
N	818	CAL STATE UNIV C/O GRUPE COMMERCIAL CO	0.00	0.00	0.00
N	819	LMG STOCKTON, INC DBA THE RECORD	0.00	0.10	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	823	STOCKTON EAST WATER DISTRICT	0.16	0.03	0.00
N	828	CITY OF STOCKTON - VAN BUSKIRK GOLF	0.00	0.00	0.00
N	829	NUSTAR TERMINALS OPS PARTNERSHIP LP	3.06	8.44	0.23
N	845	TESORO LOGISTICS OPERATIONS LLC	0.00	8.81	0.00
N	898	HDM AMERICA LLC	0.00	0.00	0.08
N	921	VANCO TRUCK & AUTO PLAZA	0.00	0.53	0.00
N	954	MCCOY TRUCK TIRE SVC CNTR	0.00	0.16	0.08
N	983	RANDHAWA PETROLEUM LLC DBA EL DORADO GAS	0.00	0.19	0.00
N	993	620 WEST CHARTER WAY LLC	0.00	0.66	0.00
N	997	EAST BAY MUNICIPAL UTILITY DISTRICT	0.02	0.01	0.00
N	1000	SFPP, L.P.	0.00	0.54	0.00
N	1004	CORT COMPANIES	0.00	0.00	0.00
N	1006	KLEIN BROS LTD	0.00	0.00	0.00
N	1013	PORT OF STOCKTON	0.01	0.06	0.03
N	1084	AMERICAN BUILDING SUPPLY	0.00	2.58	0.62
N	1096	CENTRAL VALLEY HARDWARE	0.00	0.01	0.00
N	1130	CITY OF STOCKTON MUN. UTILITY	0.05	0.05	0.00
N	1153	MARTIN OPERATING PARTNERSHIP L P	0.22	0.01	0.07
N	2369	ARROW INFRASTRUCTURE HOLDING IA LLC	1.93	7.34	0.10
N	2371	BAGLIETTO SEEDS	0.00	0.00	0.01
N	2382	STEVEN STEIN ENTERPRISES, INC	0.00	0.51	0.11
N	2392	DAMERON HOSPITAL	0.74	0.05	0.07
N	2403	HAMAMOTO'S BODY SHOP	0.00	0.00	0.00
N	2412	PACIFIC BELL TELEPHONE CO (DBA AT&T CA)	0.96	0.04	0.06
N	2413	WESTWAY FEED PRODUCTS LLC	0.06	0.05	0.15
N	2456	CITY OF STOCKTON/CB RICHARD ELLIS INC	0.00	0.00	0.00
N	2500	CALIFORNIA STOP	0.00	0.13	0.00
N	2518	CHEMICAL TRANSFER CO., INC.	0.06	0.07	0.02
N	2523	CHARTER WAY PETRO INC.	0.00	1.52	0.00
N	2561	STOCKTON MUNICIPAL UTILITY	1.79	0.22	0.01
N	2642	INDEPENDENT TRUCKING INC	0.00	0.04	0.00
N	2906	SAN JOAQUIN COUNTY MOTOR POOL	0.00	0.03	0.00
N	2943	MAIN BODY SHOP	0.00	0.00	0.00
N	2986	209 EXPRESS AUTO BODY	0.00	0.02	0.01
N	3021	ANH AUTO BODY & PAINT	0.00	0.03	0.01
N	3071	MASONITE INTERNATIONAL INC	0.00	1.22	6.20
N	3076	SNOW CLEANERS INC	0.00	3.60	0.00
N	3183	501 W WEBER, LLC	0.00	0.00	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	3204	DENTONI'S WELDING WORKS, INC.	0.00	0.73	0.56
N	3317	SAN FRANCISCO AUTOBODY FRAME	0.00	0.07	0.01
N	3353	CITY OF STOCKTON; FIRE STAT.#2	0.00	0.01	0.00
N	3367	WRENCHER'S	0.00	2.38	0.00
N	3451	EL DORADO GAS AND MART	0.00	0.11	0.00
N	3765	DURAFLAME, INC.	0.05	0.00	0.00
N	3791	MARBLE PALACE INC	0.00	0.75	0.38
N	3841	AZTLAN ORNAMENTAL IRON FAB	0.00	0.03	0.03
N	3845	COUNTRY MARKETPLACE	0.00	0.83	0.00
N	3870	BIG W SALES	0.00	1.31	0.29
N	3905	MARINE SERVICES	0.00	1.22	0.02
N	3932	PLYMOUTH SQUARE	0.04	0.00	0.00
N	4017	COMCAST CABLE COMMUNICATIONS INC	0.01	0.00	0.00
N	4022	LEHIGH SOUTHWEST CEMENT COMPANY	0.00	0.00	0.00
N	4064	H.J.BAKER & BRO. LLC	0.00	0.00	0.37
N	4158	VALLEY PACIFIC PETROLEUM SERVICES INC	0.00	0.16	0.00
N	4212	UNIFIRST CORP	0.13	0.06	0.11
N	4283	DELTA CHARTER INC	0.00	0.16	0.00
N	4347	QWEST COMMUNICATIONS CORPORATION	0.02	0.00	0.00
N	4375	DPI2 CA 18 ARMY COURT, LLC	0.33	0.01	0.01
N	4399	ALL FOREIGN & DOMESTIC BODY SHOP	0.00	0.84	0.26
N	4419	APRO LLC	0.00	0.52	0.00
N	4425	CALIFORNIA PORTLAND CEMENT COMPANY	0.00	0.00	0.19
N	4453	CALTRANS STOCKTON MAINTENANCE STATION	0.02	0.04	0.00
N	4489	HEADWATERS RESOURCES INC	0.00	0.00	0.17
N	4560	VERIZON WIRELESS - STOCKTON MSC	0.03	0.00	0.00
N	4571	BANK OF AGRICULTURE & COMMERCE	0.02	0.00	0.00
N	4677	SAN JOAQUIN COUNTY PUBLIC HEALTH SERVICE	0.04	0.00	0.00
N	4774	QUIKSERVE ENT INC DBA BURGER KING #2268	0.05	0.04	0.14
N	4899	CITY OF STOCKTON	0.00	0.00	0.00
N	4986	STATE OF CALIFORNIA, DEPT OF TRANS	0.00	0.03	0.00
N	4997	CLEAN PLANET, INC.	0.00	0.00	0.17
N	5133	STOCKDALE PREMIER FINISHES	0.00	0.00	0.00
N	5278	JOE DANGTRAN	0.00	0.53	0.00
N	6059	HOLT OF CALIFORNIA	0.00	0.00	0.00
N	6591	UNION PACIFIC RAILROAD	0.00	0.00	0.00
N	7082	CALAMCO COGEN LLC	0.17	0.06	0.46
N	7177	CITY OF STOCKTON	0.21	0.02	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	7186	WEYERHAEUSER NR COMPANY	0.00	0.00	0.00
N	7232	M & L MOULDING AND MACHINE INC	0.00	0.00	0.34
N	7249	O H I COMPANY	0.00	0.01	0.05
N	7329	PACIFIC GAS & ELECTRIC	0.00	0.00	0.00
N	7365	PACIFIC ETHANOL STOCKTON LLC	3.78	9.34	5.52
N	7489	M&L COMMODITIES, INC	0.00	0.00	0.00
N	7592	ADVANCED GEOENVIRONMENTAL INC	0.00	0.00	0.00
N	7612	PENNY-NEWMAN GRAIN CO	0.00	0.00	0.38
N	7643	VERIZON WIRELESS - PORT OF STOCKTON	0.00	0.00	0.00
N	7777	PACIFIC BELL ENVIRONMENTAL MANAGEMENT	0.00	0.00	0.00
N	7811	LKQ	0.00	0.00	0.00
N	7900	MCI	0.04	0.00	0.00
N	7933	SAN JOAQUIN COUNTY	0.07	0.00	0.00
N	7986	COVE CONTRACTORS, INC.	0.05	0.01	0.00
N	8081	BNSF RAILWAY COMPANY - MORMAN YARD	0.02	0.00	0.00
N	8141	WILLIAMS TANK LINES	0.00	0.00	0.00
N	8179	ARANDAS TORTILLA CO INC	0.38	0.02	0.03
N	8237	HERNANDEZ AUTO BODY AND PAINT	0.00	0.02	0.01
N	8273	CARRY TRANSIT	0.00	0.00	0.00
N	8332	DENTONI'S WELDING WORKS INC	0.00	0.37	0.00
N	8529	DEPARTMENT OF TRANSPORTATION	0.01	0.00	0.00
N	8540	ABDO THABIT NASHIR	0.00	0.48	0.00
N	8622	WILMAR OILS & FATS STOCKTON LLC	0.06	0.06	0.08
N	8634	CASTLE METALS	0.00	0.00	0.00
N	8662	PSC INDUSTRIAL OUTSOURCING LP	0.00	0.00	0.00
N	8703	GPT PROP TRUST/REIT MNGMT & RESEARCH LLC	0.00	0.00	0.00
N	8727	TRAIL COFFEE	0.01	0.00	0.00
N	8790	BIMBO BAKERIES USA C/O STANTEC	0.00	0.00	0.00
N	8830	ELEANOR SADE	0.01	0.00	0.00
N	8925	AC PAINTING	0.00	0.00	0.00
N	8932	RAMIREZ AUTO BODY & REPAIR	0.00	0.00	0.00
N	9031	CITY OF STOCKTON - SMG STOCKTON	0.00	0.00	0.00
N	9129	JUDICIAL COUNCIL OF CALIFORNIA	0.10	0.01	0.00
N	9153	VERIZON WIRELESS	0.00	0.00	0.00
N	9186	ABC RADIATORS	0.00	0.00	0.00
N	9209	SAN JOAQUIN COUNTY	0.07	0.01	0.00
N	9211	SAN JOAQUIN COUNTY	0.10	0.01	0.01
N	9212	SAN JOAQUIN COUNTY	0.00	0.00	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	9238	GMA GARNET USA CORPORATION	0.00	0.00	0.00
N	9331	TIGER-SUL PRODUCTS LLC	0.00	0.00	0.64
N	9404	TRANSLOAD SOLUTIONS LLC	0.00	0.00	0.00
N	9424	ARANDAS TORTILLA COMPANY	0.00	0.00	0.00
N	9487	AURORA COLLISION CENTER	0.00	0.01	0.00
N	9510	CALIFORNIA WATER SERVICE COMPANY	0.00	0.00	0.00
N	9529	FAM AUTOBODY	0.00	0.00	0.00
N	9532	SAN JOAQUIN REGIONAL TRANSIT DISTRICT	0.00	0.00	0.00
N	9550	OHI COMPANY, INC.	0.00	0.00	0.00
N	9572	SUNSHINE HAWAIIAN BBQ	0.00	0.00	0.00
N	9582	MISAKI SUSHI & BAR	0.00	0.00	0.00
N	9633	DIAMOND AUTO BODY & SERVICES INC	0.00	0.00	0.00
N	9634	DURAFLAME INC.	0.00	0.00	0.00
N	9759	7-ELEVEN #38877	0.00	0.00	0.00
N	9767	JUVA STOCKTON, INC	0.00	0.00	0.00
P	7720	CITY OF STOCKTON	0.00	0.00	0.00

Forecasting Emissions - Stationary Sources:

For assessing future growth for the years 2025 and 2030, the District used growth and control factors) supplied by the Air Resources Board (ARB). The District assigned growth and control factors to each permitted process type in the community using the most appropriate Emissions Inventory Code (EIC). The EIC is determined using the following method:

- For each facility located in Stockton and corresponding process, compare the County EIC, Source Classification Code (SCC) and Standard industrial Classification (SIC) from ARB's table (Growth and control factors table) with the EIC, SCC, and SIC from the District database information related to facilities within the selected community.
- If the facility and process EIC, SCC, and SIC from ARB's table and District database all match, then the District uses the applicable growth factor.
- If the facility and process EIC, SCC, and SIC from ARB's table and District database do NOT ALL match, then identify facilities and corresponding process for which EIC, SIC, and area-wide EIC match.
- If the facility and process EIC, SCC, and area-wide EIC from ARB's table and District database match, then the District uses the applicable growth factor.

- e) If the facility and process EIC, SCC, and area-wide EIC from ARB's table and District database do NOT ALL match, then for each corresponding facility, the District is only using the EIC between ARB's table and the District database.
- f) If the EIC between ARB's table and the District database do not match for specific facilities, then the District assumes no growth or change in emission control for the affected facility.

Projected emissions were calculated using the 2018 emissions inventory as the base year to project emissions for 2025 and 2030. The 2018 emissions inventory values were used to project emissions by multiplying these emissions by the ratio of the growth factors and control factors for each process. The emissions are projected for each permitted unit and then totaled to grow the facility emissions. The following equation represents the formula for forecasting emissions in a future year from a specific emissions unit (i.e. equipment type):

$$2024 \text{ NOx (ton/yr)} = 2017 \text{ NOx emissions} \times [(2024 \text{ NOx GF} \div 2017 \text{ NOx GF}) \times (2024 \text{ NOx CF} \div 2017 \text{ NOx CF})]$$

Where,

GF= Growth factor

CF = Control factor

Forecasted Stationary Source Emissions Inventories

Based on the forecasting process described above, Tables 2 and 3 below summarize the emissions inventory for each District permitted facility in the South Central Community for years 2025 and 2030.

Table 2: Year 2025 Projected Emissions Inventory for District Permitted Facilities

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	4	ACE ARMATURE & MOTOR SHOP (JOSHUA IRIS)	0.10	0.01	0.01
N	86	MCM14 CORP	0.00	1.44	0.00
N	103	ABDO THABIT NASHIR	0.00	0.10	0.00
N	150	DURAFLAME WEST	0.03	0.03	1.41
N	151	CALIFORNIA WATER SERVICE	0.01	0.02	0.00
N	153	LEHIGH SOUTHWEST CEMENT COMPANY	0.00	0.00	0.68
N	157	CALIFORNIA AMMONIA CO	0.04	0.02	0.03
N	172	CANNON DRY CLEANING COMPANY	0.00	0.00	0.00
N	175	MOBIL STOCKTON #1/ABDO NASHIR	0.00	0.12	0.00
N	227	PENNY NEWMAN GRAIN COMPANY	0.00	0.00	0.91
N	228	CONTRACT COATINGS	0.00	4.07	2.71
N	258	SRH FOOD & GAS MARKET	0.00	0.47	0.00
N	270	METROPOLITAN STEVEDORE COMPANY	0.00	0.00	0.00
N	285	DIAMOND FOODS, LLC	0.27	0.12	0.63
N	298	BEST EXPRESS FOODS INC	0.00	0.00	0.00
N	389	HOGAN MFG INC	0.01	1.06	0.22
N	400	HI-GRADE CLEANERS	0.00	0.06	0.00
N	454	GSG GAS AND MART	0.00	0.11	0.00
N	524	N.J. MCCUTCHEN, INC.	0.00	0.36	0.21
N	549	MIRACLE MILE MARKET	0.00	0.15	0.00
N	553	CONCRETE, INC.	0.00	0.00	2.54
N	577	NEWARK SIERRA PAPERBOARD CORP.	0.01	0.00	0.00
N	629	SCHUFF STEEL COMPANY	0.00	0.00	0.05
N	645	DTE STOCKTON, LLC	97.56	2.02	14.05
N	655	WESTWAY FEED PRODUCTS LLC	0.00	0.00	0.00
N	690	RITE WAY CLEANERS	0.00	0.04	0.00
N	691	CALPORTLAND COMPANY (STOCKTON WEST)	0.00	0.00	0.47
N	722	SAN JOAQUIN COUNTY	0.05	0.06	0.00
N	742	SEPULVEDA'S TRUCK PAINTING	0.00	0.10	0.05
N	788	STATE OF CA. 2ND DIST. AG ASSO	0.00	0.00	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	800	CITY OF STOCKTON	0.01	0.07	0.00
N	805	STOCKTON, CITY OF	0.00	0.08	0.00
N	810	STOCKTON TRI-INDUSTRIES, INC	0.00	4.63	1.39
N	811	STOCKTON RWCF	3.87	1.07	0.32
N	818	CAL STATE UNIV C/O GRUPE COMMERCIAL CO	0.00	0.00	0.00
N	819	LMG STOCKTON, INC DBA THE RECORD	0.00	0.10	0.00
N	823	STOCKTON EAST WATER DISTRICT	0.14	0.02	0.00
N	828	CITY OF STOCKTON - VAN BUSKIRK GOLF	0.00	0.00	0.00
N	829	NUSTAR TERMINALS OPS PARTNERSHIP LP	3.06	7.53	0.23
N	845	TESORO LOGISTICS OPERATIONS LLC	0.00	7.98	0.00
N	898	HDM AMERICA LLC	0.00	0.00	0.08
N	921	VANCO TRUCK & AUTO PLAZA	0.00	0.56	0.00
N	954	MCCOY TRUCK TIRE SVC CNTR	0.00	0.16	0.08
N	983	RANDHAWA PETROLEUM LLC DBA EL DORADO GAS	0.00	0.20	0.00
N	993	620 WEST CHARTER WAY LLC	0.00	0.69	0.00
N	997	EAST BAY MUNICIPAL UTILITY DISTRICT	0.02	0.01	0.00
N	1000	SFPP, L.P.	0.00	0.54	0.00
N	1004	CORT COMPANIES	0.00	0.00	0.00
N	1006	KLEIN BROS LTD	0.00	0.00	0.00
N	1013	PORT OF STOCKTON	0.01	0.06	0.03
N	1084	AMERICAN BUILDING SUPPLY	0.00	2.78	0.62
N	1096	CENTRAL VALLEY HARDWARE	0.00	0.01	0.00
N	1130	CITY OF STOCKTON MUN. UTILITY	0.05	0.05	0.00
N	1153	MARTIN OPERATING PARTNERSHIP L P	0.22	0.01	0.07
N	2369	ARROW INFRASTRUCTURE HOLDING IA LLC	1.72	6.55	0.09
N	2371	BAGLIETTO SEEDS	0.00	0.00	0.01
N	2382	STEVEN STEIN ENTERPRISES, INC	0.00	0.51	0.11
N	2392	DAMERON HOSPITAL	0.66	0.05	0.07
N	2403	HAMAMOTO'S BODY SHOP	0.00	0.00	0.00
N	2412	PACIFIC BELL TELEPHONE CO (DBA AT&T CA)	0.84	0.04	0.05
N	2413	WESTWAY FEED PRODUCTS LLC	0.06	0.05	0.15
N	2456	CITY OF STOCKTON/CB RICHARD ELLIS INC	0.00	0.00	0.00
N	2500	CALIFORNIA STOP	0.00	0.14	0.00
N	2518	CHEMICAL TRANSFER CO., INC.	0.06	0.07	0.02
N	2523	CHARTER WAY PETRO INC.	0.00	1.58	0.00
N	2561	STOCKTON MUNICIPAL UTILITY	1.85	0.23	0.01
N	2642	INDEPENDENT TRUCKING INC	0.00	0.04	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	2906	SAN JOAQUIN COUNTY MOTOR POOL	0.00	0.03	0.00
N	2943	MAIN BODY SHOP	0.00	0.00	0.00
N	2986	209 EXPRESS AUTO BODY	0.00	0.02	0.01
N	3021	ANH AUTO BODY & PAINT	0.00	0.03	0.01
N	3071	MASONITE INTERNATIONAL INC	0.00	1.37	6.83
N	3076	SNOW CLEANERS INC	0.00	3.94	0.00
N	3183	501 W WEBER, LLC	0.00	0.00	0.00
N	3204	DENTONI'S WELDING WORKS, INC.	0.00	0.73	0.56
N	3317	SAN FRANCISCO AUTOBODY FRAME	0.00	0.07	0.01
N	3353	CITY OF STOCKTON; FIRE STAT.#2	0.00	0.01	0.00
N	3367	WRENCHER'S	0.00	2.38	0.00
N	3451	EL DORADO GAS AND MART	0.00	0.11	0.00
N	3765	DURAFLAME, INC.	0.04	0.00	0.00
N	3791	MARBLE PALACE INC	0.00	0.81	0.41
N	3841	AZTLAN ORNAMENTAL IRON FAB	0.00	0.03	0.03
N	3845	COUNTRY MARKETPLACE	0.00	0.86	0.00
N	3870	BIG W SALES	0.00	1.31	0.29
N	3905	MARINE SERVICES	0.00	1.23	0.02
N	3932	PLYMOUTH SQUARE	0.03	0.00	0.00
N	4017	COMCAST CABLE COMMUNICATIONS INC	0.01	0.00	0.00
N	4022	LEHIGH SOUTHWEST CEMENT COMPANY	0.00	0.00	0.00
N	4064	H.J.BAKER & BRO. LLC	0.00	0.00	0.37
N	4158	VALLEY PACIFIC PETROLEUM SERVICES INC	0.00	0.16	0.00
N	4212	UNIFIRST CORP	0.13	0.06	0.12
N	4283	DELTA CHARTER INC	0.00	0.17	0.00
N	4347	QWEST COMMUNICATIONS CORPORATION	0.02	0.00	0.00
N	4375	DPI2 CA 18 ARMY COURT, LLC	0.33	0.01	0.01
N	4399	ALL FOREIGN & DOMESTIC BODY SHOP	0.00	0.84	0.26
N	4419	APRO LLC	0.00	0.54	0.00
N	4425	CALIFORNIA PORTLAND CEMENT COMPANY	0.00	0.00	0.19
N	4453	CALTRANS STOCKTON MAINTENANCE STATION	0.02	0.04	0.00
N	4489	HEADWATERS RESOURCES INC	0.00	0.00	0.17
N	4560	VERIZON WIRELESS - STOCKTON MSC	0.02	0.00	0.00
N	4571	BANK OF AGRICULTURE & COMMERCE	0.02	0.00	0.00
N	4677	SAN JOAQUIN COUNTY PUBLIC HEALTH SERVICE	0.04	0.00	0.00
N	4774	QUIKSERVE ENT INC DBA BURGER KING #2268	0.05	0.04	0.16
N	4899	CITY OF STOCKTON	0.00	0.00	0.00
N	4986	STATE OF CALIFORNIA, DEPT OF TRANS	0.00	0.03	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	4997	CLEAN PLANET, INC.	0.00	0.00	0.17
N	5133	STOCKDALE PREMIER FINISHES	0.00	0.00	0.00
N	5278	JOE DANGTRAN	0.00	0.55	0.00
N	6059	HOLT OF CALIFORNIA	0.00	0.00	0.00
N	6591	UNION PACIFIC RAILROAD	0.00	0.00	0.00
N	7082	CALAMCO COGEN LLC	0.18	0.06	0.48
N	7177	CITY OF STOCKTON	0.18	0.01	0.00
N	7186	WEYERHAEUSER NR COMPANY	0.00	0.00	0.00
N	7232	M & L MOULDING AND MACHINE INC	0.00	0.00	0.34
N	7249	O H I COMPANY	0.00	0.01	0.05
N	7329	PACIFIC GAS & ELECTRIC	0.00	0.00	0.00
N	7365	PACIFIC ETHANOL STOCKTON LLC	3.38	9.26	5.04
N	7489	M&L COMMODITIES, INC	0.00	0.00	0.00
N	7592	ADVANCED GEOENVIRONMENTAL INC	0.00	0.00	0.00
N	7612	PENNY-NEWMAN GRAIN CO	0.00	0.00	0.38
N	7643	VERIZON WIRELESS - PORT OF STOCKTON	0.00	0.00	0.00
N	7777	PACIFIC BELL ENVIRONMENTAL MANAGEMENT	0.00	0.00	0.00
N	7811	LKQ	0.00	0.00	0.00
N	7900	MCI	0.03	0.00	0.00
N	7933	SAN JOAQUIN COUNTY	0.07	0.00	0.00
N	7986	COVE CONTRACTORS, INC.	0.05	0.01	0.00
N	8081	BNSF RAILWAY COMPANY - MORMAN YARD	0.02	0.00	0.00
N	8141	WILLIAMS TANK LINES	0.00	0.00	0.00
N	8179	ARANDAS TORTILLA CO INC	0.35	0.02	0.03
N	8237	HERNANDEZ AUTO BODY AND PAINT	0.00	0.02	0.01
N	8273	CARRY TRANSIT	0.00	0.00	0.00
N	8332	DENTONI'S WELDING WORKS INC	0.00	0.37	0.00
N	8529	DEPARTMENT OF TRANSPORTATION	0.01	0.00	0.00
N	8540	ABDO THABIT NASHIR	0.00	0.49	0.00
N	8622	WILMAR OILS & FATS STOCKTON LLC	0.06	0.05	0.07
N	8634	CASTLE METALS	0.00	0.00	0.00
N	8662	PSC INDUSTRIAL OUTSOURCING LP	0.00	0.00	0.00
N	8703	GPT PROP TRUST/REIT MNGMT & RESEARCH LLC	0.00	0.00	0.00
N	8727	TRAIL COFFEE	0.01	0.00	0.00
N	8790	BIMBO BAKERIES USA C/O STANTEC	0.00	0.00	0.00
N	8830	ELEANOR SADE	0.01	0.00	0.00
N	8925	AC PAINTING	0.00	0.00	0.00
N	8932	RAMIREZ AUTO BODY & REPAIR	0.00	0.00	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	9031	CITY OF STOCKTON - SMG STOCKTON	0.00	0.00	0.00
N	9129	JUDICIAL COUNCIL OF CALIFORNIA	0.10	0.01	0.00
N	9153	VERIZON WIRELESS	0.00	0.00	0.00
N	9186	ABC RADIATORS	0.00	0.00	0.00
N	9209	SAN JOAQUIN COUNTY	0.06	0.00	0.00
N	9211	SAN JOAQUIN COUNTY	0.09	0.01	0.01
N	9212	SAN JOAQUIN COUNTY	0.00	0.00	0.00
N	9238	GMA GARNET USA CORPORATION	0.00	0.00	0.00
N	9331	TIGER-SUL PRODUCTS LLC	0.00	0.00	0.64
N	9404	TRANSLOAD SOLUTIONS LLC	0.00	0.00	0.00
N	9424	ARANDAS TORTILLA COMPANY	0.00	0.00	0.00
N	9487	AURORA COLLISION CENTER	0.00	0.01	0.00
N	9510	CALIFORNIA WATER SERVICE COMPANY	0.00	0.00	0.00
N	9529	FAM AUTOBODY	0.00	0.00	0.00
N	9532	SAN JOAQUIN REGIONAL TRANSIT DISTRICT	0.00	0.00	0.00
N	9550	OHI COMPANY, INC.	0.00	0.00	0.00
N	9572	SUNSHINE HAWAIIAN BBQ	0.00	0.00	0.00
N	9582	MISAKI SUSHI & BAR	0.00	0.00	0.00
N	9633	DIAMOND AUTO BODY & SERVICES INC	0.00	0.00	0.00
N	9634	DURAFLAME INC.	0.00	0.00	0.00
N	9759	7-ELEVEN #38877	0.00	0.00	0.00
N	9767	JUVA STOCKTON, INC	0.00	0.00	0.00
P	7720	CITY OF STOCKTON	0.00	0.00	0.00

Table 3: Year 2030 Projected Emissions Inventory for District Permitted Facilities

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	4	ACE ARMATURE & MOTOR SHOP (JOSHUA IRIS)	0.10	0.01	0.01
N	86	MCM14 CORP	0.00	1.44	0.00
N	103	ABDO THABIT NASHIR	0.00	0.10	0.00
N	150	DURAFLAME WEST	0.03	0.03	1.41
N	151	CALIFORNIA WATER SERVICE	0.01	0.02	0.00
N	153	LEHIGH SOUTHWEST CEMENT COMPANY	0.00	0.00	0.68
N	157	CALIFORNIA AMMONIA CO	0.04	0.02	0.03
N	172	CANNON DRY CLEANING COMPANY	0.00	0.00	0.00
N	175	MOBIL STOCKTON #1/ABDO NASHIR	0.00	0.12	0.00
N	227	PENNY NEWMAN GRAIN COMPANY	0.00	0.00	0.91
N	228	CONTRACT COATINGS	0.00	4.07	2.71
N	258	SRH FOOD & GAS MARKET	0.00	0.47	0.00
N	270	METROPOLITAN STEVEDORE COMPANY	0.00	0.00	0.00
N	285	DIAMOND FOODS, LLC	0.27	0.12	0.63
N	298	BEST EXPRESS FOODS INC	0.00	0.00	0.00
N	389	HOGAN MFG INC	0.01	1.06	0.22
N	400	HI-GRADE CLEANERS	0.00	0.06	0.00
N	454	GSG GAS AND MART	0.00	0.11	0.00
N	524	N.J. MCCUTCHEN, INC.	0.00	0.36	0.21
N	549	MIRACLE MILE MARKET	0.00	0.15	0.00
N	553	CONCRETE, INC.	0.00	0.00	2.54
N	577	NEWARK SIERRA PAPERBOARD CORP.	0.01	0.00	0.00
N	629	SCHUFF STEEL COMPANY	0.00	0.00	0.05
N	645	DTE STOCKTON, LLC	97.56	2.02	14.05
N	655	WESTWAY FEED PRODUCTS LLC	0.00	0.00	0.00
N	690	RITE WAY CLEANERS	0.00	0.04	0.00
N	691	CALPORTLAND COMPANY (STOCKTON WEST)	0.00	0.00	0.47
N	722	SAN JOAQUIN COUNTY	0.05	0.06	0.00
N	742	SEPULVEDA'S TRUCK PAINTING	0.00	0.10	0.05
N	788	STATE OF CA. 2ND DIST. AG ASSO	0.00	0.00	0.00
N	800	CITY OF STOCKTON	0.01	0.07	0.00
N	805	STOCKTON, CITY OF	0.00	0.08	0.00
N	810	STOCKTON TRI-INDUSTRIES, INC	0.00	4.63	1.39
N	811	STOCKTON RWCF	3.87	1.07	0.32
N	818	CAL STATE UNIV C/O GRUPE COMMERCIAL CO	0.00	0.00	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	819	LMG STOCKTON, INC DBA THE RECORD	0.00	0.10	0.00
N	823	STOCKTON EAST WATER DISTRICT	0.14	0.02	0.00
N	828	CITY OF STOCKTON - VAN BUSKIRK GOLF	0.00	0.00	0.00
N	829	NUSTAR TERMINALS OPS PARTNERSHIP LP	3.06	7.53	0.23
N	845	TESORO LOGISTICS OPERATIONS LLC	0.00	7.98	0.00
N	898	HDM AMERICA LLC	0.00	0.00	0.08
N	921	VANCO TRUCK & AUTO PLAZA	0.00	0.56	0.00
N	954	MCCOY TRUCK TIRE SVC CNTR	0.00	0.16	0.08
N	983	RANDHAWA PETROLEUM LLC DBA EL DORADO GAS	0.00	0.20	0.00
N	993	620 WEST CHARTER WAY LLC	0.00	0.69	0.00
N	997	EAST BAY MUNICIPAL UTILITY DISTRICT	0.02	0.01	0.00
N	1000	SFPP, L.P.	0.00	0.54	0.00
N	1004	CORT COMPANIES	0.00	0.00	0.00
N	1006	KLEIN BROS LTD	0.00	0.00	0.00
N	1013	PORT OF STOCKTON	0.01	0.06	0.03
N	1084	AMERICAN BUILDING SUPPLY	0.00	2.78	0.62
N	1096	CENTRAL VALLEY HARDWARE	0.00	0.01	0.00
N	1130	CITY OF STOCKTON MUN. UTILITY	0.05	0.05	0.00
N	1153	MARTIN OPERATING PARTNERSHIP L P	0.22	0.01	0.07
N	2369	ARROW INFRASTRUCTURE HOLDING IA LLC	1.72	6.55	0.09
N	2371	BAGLIETTO SEEDS	0.00	0.00	0.01
N	2382	STEVEN STEIN ENTERPRISES, INC	0.00	0.51	0.11
N	2392	DAMERON HOSPITAL	0.66	0.05	0.07
N	2403	HAMAMOTO'S BODY SHOP	0.00	0.00	0.00
N	2412	PACIFIC BELL TELEPHONE CO (DBA AT&T CA)	0.84	0.04	0.05
N	2413	WESTWAY FEED PRODUCTS LLC	0.06	0.05	0.15
N	2456	CITY OF STOCKTON/CB RICHARD ELLIS INC	0.00	0.00	0.00
N	2500	CALIFORNIA STOP	0.00	0.14	0.00
N	2518	CHEMICAL TRANSFER CO., INC.	0.06	0.07	0.02
N	2523	CHARTER WAY PETRO INC.	0.00	1.58	0.00
N	2561	STOCKTON MUNICIPAL UTILITY	1.85	0.23	0.01
N	2642	INDEPENDENT TRUCKING INC	0.00	0.04	0.00
N	2906	SAN JOAQUIN COUNTY MOTOR POOL	0.00	0.03	0.00
N	2943	MAIN BODY SHOP	0.00	0.00	0.00
N	2986	209 EXPRESS AUTO BODY	0.00	0.02	0.01
N	3021	ANH AUTO BODY & PAINT	0.00	0.03	0.01
N	3071	MASONITE INTERNATIONAL INC	0.00	1.37	6.83
N	3076	SNOW CLEANERS INC	0.00	3.94	0.00

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	3183	501 W WEBER, LLC	0.00	0.00	0.00
N	3204	DENTONI'S WELDING WORKS, INC.	0.00	0.73	0.56
N	3317	SAN FRANCISCO AUTOBODY FRAME	0.00	0.07	0.01
N	3353	CITY OF STOCKTON; FIRE STAT.#2	0.00	0.01	0.00
N	3367	WRENCHER'S	0.00	2.38	0.00
N	3451	EL DORADO GAS AND MART	0.00	0.11	0.00
N	3765	DURAFLAME, INC.	0.04	0.00	0.00
N	3791	MARBLE PALACE INC	0.00	0.81	0.41
N	3841	AZTLAN ORNAMENTAL IRON FAB	0.00	0.03	0.03
N	3845	COUNTRY MARKETPLACE	0.00	0.86	0.00
N	3870	BIG W SALES	0.00	1.31	0.29
N	3905	MARINE SERVICES	0.00	1.23	0.02
N	3932	PLYMOUTH SQUARE	0.03	0.00	0.00
N	4017	COMCAST CABLE COMMUNICATIONS INC	0.01	0.00	0.00
N	4022	LEHIGH SOUTHWEST CEMENT COMPANY	0.00	0.00	0.00
N	4064	H.J.BAKER & BRO. LLC	0.00	0.00	0.37
N	4158	VALLEY PACIFIC PETROLEUM SERVICES INC	0.00	0.16	0.00
N	4212	UNIFIRST CORP	0.13	0.06	0.12
N	4283	DELTA CHARTER INC	0.00	0.17	0.00
N	4347	QWEST COMMUNICATIONS CORPORATION	0.02	0.00	0.00
N	4375	DPI2 CA 18 ARMY COURT, LLC	0.33	0.01	0.01
N	4399	ALL FOREIGN & DOMESTIC BODY SHOP	0.00	0.84	0.26
N	4419	APRO LLC	0.00	0.54	0.00
N	4425	CALIFORNIA PORTLAND CEMENT COMPANY	0.00	0.00	0.19
N	4453	CALTRANS STOCKTON MAINTENANCE STATION	0.02	0.04	0.00
N	4489	HEADWATERS RESOURCES INC	0.00	0.00	0.17
N	4560	VERIZON WIRELESS - STOCKTON MSC	0.02	0.00	0.00
N	4571	BANK OF AGRICULTURE & COMMERCE	0.02	0.00	0.00
N	4677	SAN JOAQUIN COUNTY PUBLIC HEALTH SERVICE	0.04	0.00	0.00
N	4774	QUIKSERVE ENT INC DBA BURGER KING #2268	0.05	0.04	0.16
N	4899	CITY OF STOCKTON	0.00	0.00	0.00
N	4986	STATE OF CALIFORNIA, DEPT OF TRANS	0.00	0.03	0.00
N	4997	CLEAN PLANET, INC.	0.00	0.00	0.17
N	5133	STOCKDALE PREMIER FINISHES	0.00	0.00	0.00
N	5278	JOE DANGTRAN	0.00	0.55	0.00
N	6059	HOLT OF CALIFORNIA	0.00	0.00	0.00
N	6591	UNION PACIFIC RAILROAD	0.00	0.00	0.00
N	7082	CALAMCO COGEN LLC	0.18	0.06	0.48

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	7177	CITY OF STOCKTON	0.18	0.01	0.00
N	7186	WEYERHAEUSER NR COMPANY	0.00	0.00	0.00
N	7232	M & L MOULDING AND MACHINE INC	0.00	0.00	0.34
N	7249	O H I COMPANY	0.00	0.01	0.05
N	7329	PACIFIC GAS & ELECTRIC	0.00	0.00	0.00
N	7365	PACIFIC ETHANOL STOCKTON LLC	3.38	9.26	5.04
N	7489	M&L COMMODITIES, INC	0.00	0.00	0.00
N	7592	ADVANCED GEOENVIRONMENTAL INC	0.00	0.00	0.00
N	7612	PENNY-NEWMAN GRAIN CO	0.00	0.00	0.38
N	7643	VERIZON WIRELESS - PORT OF STOCKTON	0.00	0.00	0.00
N	7777	PACIFIC BELL ENVIRONMENTAL MANAGEMENT	0.00	0.00	0.00
N	7811	LKQ	0.00	0.00	0.00
N	7900	MCI	0.03	0.00	0.00
N	7933	SAN JOAQUIN COUNTY	0.07	0.00	0.00
N	7986	COVE CONTRACTORS, INC.	0.05	0.01	0.00
N	8081	BNSF RAILWAY COMPANY - MORMAN YARD	0.02	0.00	0.00
N	8141	WILLIAMS TANK LINES	0.00	0.00	0.00
N	8179	ARANDAS TORTILLA CO INC	0.35	0.02	0.03
N	8237	HERNANDEZ AUTO BODY AND PAINT	0.00	0.02	0.01
N	8273	CARRY TRANSIT	0.00	0.00	0.00
N	8332	DENTONI'S WELDING WORKS INC	0.00	0.37	0.00
N	8529	DEPARTMENT OF TRANSPORTATION	0.01	0.00	0.00
N	8540	ABDO THABIT NASHIR	0.00	0.49	0.00
N	8622	WILMAR OILS & FATS STOCKTON LLC	0.06	0.05	0.07
N	8634	CASTLE METALS	0.00	0.00	0.00
N	8662	PSC INDUSTRIAL OUTSOURCING LP	0.00	0.00	0.00
N	8703	GPT PROP TRUST/REIT MNGMT & RESEARCH LLC	0.00	0.00	0.00
N	8727	TRAIL COFFEE	0.01	0.00	0.00
N	8790	BIMBO BAKERIES USA C/O STANTEC	0.00	0.00	0.00
N	8830	ELEANOR SADE	0.01	0.00	0.00
N	8925	AC PAINTING	0.00	0.00	0.00
N	8932	RAMIREZ AUTO BODY & REPAIR	0.00	0.00	0.00
N	9031	CITY OF STOCKTON - SMG STOCKTON	0.00	0.00	0.00
N	9129	JUDICIAL COUNCIL OF CALIFORNIA	0.10	0.01	0.00
N	9153	VERIZON WIRELESS	0.00	0.00	0.00
N	9186	ABC RADIATORS	0.00	0.00	0.00
N	9209	SAN JOAQUIN COUNTY	0.06	0.00	0.00
N	9211	SAN JOAQUIN COUNTY	0.09	0.01	0.01

Region	ID	Facility Name	NOX (tpy)	VOC (tpy)	PM2.5 (tpy)
N	9212	SAN JOAQUIN COUNTY	0.00	0.00	0.00
N	9238	GMA GARNET USA CORPORATION	0.00	0.00	0.00
N	9331	TIGER-SUL PRODUCTS LLC	0.00	0.00	0.64
N	9404	TRANSLOAD SOLUTIONS LLC	0.00	0.00	0.00
N	9424	ARANDAS TORTILLA COMPANY	0.00	0.00	0.00
N	9487	AURORA COLLISION CENTER	0.00	0.01	0.00
N	9510	CALIFORNIA WATER SERVICE COMPANY	0.00	0.00	0.00
N	9529	FAM AUTOBODY	0.00	0.00	0.00
N	9532	SAN JOAQUIN REGIONAL TRANSIT DISTRICT	0.00	0.00	0.00
N	9550	OHI COMPANY, INC.	0.00	0.00	0.00
N	9572	SUNSHINE HAWAIIAN BBQ	0.00	0.00	0.00
N	9582	MISAKI SUSHI & BAR	0.00	0.00	0.00
N	9633	DIAMOND AUTO BODY & SERVICES INC	0.00	0.00	0.00
N	9634	DURAFLAME INC.	0.00	0.00	0.00
N	9759	7-ELEVEN #38877	0.00	0.00	0.00
N	9767	JUVA STOCKTON, INC	0.00	0.00	0.00
P	7720	CITY OF STOCKTON	0.00	0.00	0.00

Mobile Source Emissions Inventory

On-Road Mobile Sources

California Air Resources Board staff have developed a methodology to spatially allocate on-road vehicle emissions on each road (also called the VEER approach). The VEER approach spatially allocates vehicle activity data used in the latest adopted Regional Transportation Plans from the local metropolitan planning organization (MPO)¹ onto roadways from the U.S. Census Bureau's Topologically Integrated Geographic Encoding and Referencing (TIGER)² road network. The TIGER network represents the complete roadway network, whereas the MPO road network only captures a rough approximation of the actual roadway network. Functional road types from the MPO and TIGER network are broken into four categories (major roads, major arterials, minor arterials, and local/residential roads). The vehicle activity in terms of vehicle miles traveled (VMT) is spatially allocated from the MPO network onto the TIGER network for each road type using ArcGIS. Separating the road types into four categories allows similar VMT roads to be processed together; thus eliminating a possible bias in VMT allocation from high VMT roads onto low VMT roads and vice versa. Criteria air pollutant emissions are estimated by applying existing county-level aggregated emission factors and vehicle distribution from CARB's latest on-road mobile source emission factor model version 2017 (EMFAC2017)³ to the spatially allocated VMT on each road link. Toxic air contaminant emissions are estimated by applying CARB's chemical speciation profiles⁴ to the total organic gas (TOG) and particulate matter (PM) emissions estimated for each road link.

¹ San Joaquin Council of Government 2018 Regional Transportation Plan loaded network (2008 base year projected to 2017)

²Census Bureau's Topologically Integrated Geographic Encoding and Referencing (TIGER) road network (<https://tigerweb.geo.census.gov/tigerweb/>)

³EMFAC2017 includes information on California's car and truck fleet (e.g., vehicle population, age) and also reflects the emissions benefits of CARB's previously adopted on-road mobile source regulations (e.g., Pavley Standards, Advanced Clean Cars, Truck and Bus, other on-road diesel fleet rules). For more information on EMFAC2017, see <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>

⁴California Air Resources Board, Speciation Profiles, <https://ww3.arb.ca.gov/ei/speciate/speciate.htm>

Off-Road Mobile Sources

Emissions from off-road sources were estimated using a suite of category-specific models or, where a new model was not available, the OFFROAD2007 model. Many of the newer models were developed to support recent regulations, including in-use off-road equipment, ocean-going vessels and others. A summary of specific off-road categories is below:

Locomotives

In 2016, ARB updated California's Class I and Class II line-haul locomotive model. The new model provides the following updates: age and model year distribution based on 2011 and 2014 rail company data, activity based on Freight Analysis Framework (FAF) data, fuel growth based on Board of Equalization historical rail data, and new locomotive populations, survival rates, and Tier distributions. To estimate emissions, ARB used duty cycle, fuel consumption and activity data reported by the rail lines in 2011. These results were combined with the Class III locomotive emissions inventory from previous SIPS, which were incorporated in the 2006 locomotive inventory, to create an overall California line-haul locomotive emissions inventory for the SIP.

Additional information is available at:

https://www.arb.ca.gov/msei/categories.htm#offroad_motor_vehicles.

Pleasure Craft and Recreational Vehicles

A new model was developed in 2011 to estimate emissions from pleasure craft and recreational vehicles. In both cases, population, activity, and emission factors were re-assessed using new surveys, registration information, and emissions testing.

Additional information is available at:

https://www.arb.ca.gov/msei/categories.htm#offroad_motor_vehicles

In-Use Off-Road Equipment

ARB developed this model in 2010 to support the analysis for amendments to the In-Use Off-Road Diesel Fueled Fleets Regulation. Staff updated the underlying activity forecast to reflect more recent economic forecast data, which suggests a slower rate of recovery through 2024 than previously anticipated.

Additional information is available at:

https://www.arb.ca.gov/msei/categories.htm#offroad_motor_vehicles

Transport Refrigeration Units (TRU)

This model reflects updates to activity, population, growth and turn-over data, and emission factors developed to support the 2011 amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units.

Additional information is available at:
https://www.arb.ca.gov/msei/categories.htm#offroad_motor_vehicles

Fuel Storage and Handling

Emissions for fuel storage and handling were estimated using the OFFROAD2007 model.

Inventory Base Year

ARB worked with the local air districts to determine the base year that should be used across the State. CARB selected 2017 as the base year to maintain consistency in the State. Mobile source emissions have been forecasted for years 2018, 2025, and 2030 for the purposes of the CERP.

Methodology

The EMFAC model was used to assess emissions from on-road vehicles. Off-road mobile source emissions are estimated using a new modular approach for different source categories. On-road and off-road models account for the effects of various adopted regulations, technology types, and seasonal conditions on emissions.

Additional information on all ARB's Mobile source Methodologies and categories is available at: <https://ww3.arb.ca.gov/msei/msei.htm>

Summary of On-Road Mobile Source Emissions

Table 4 below summarizes the total estimated on-road mobile source emissions for each general on-road mobile source category in the Stockton Community for 2018:

Table 4: Year 2018 On-Road Mobile Source Emissions

On-Road Mobile Source Category	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Heavy Duty Vehicles	195.54	8.97	4.69
Medium Duty Vehicles	72.21	6.32	2.97
Light Duty Vehicles	165.71	148.89	14.06
Bus	8.70	0.49	0.36
Total	442.16	164.67	22.08

Summary of Off-Road Mobile Source Emissions

Table 5 below summarizes the total estimated off-road mobile source emissions for each general off-road mobile source category in the Stockton Community for 2018:

Table 5: Year 2018 Off-Road Mobile Source Emissions

Off-Road Mobile Source Category	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Ocean Going Vessels	113.81	5.40	2.96
Trains	147.62	1.82	2.65
Recreational Boats	25.44	84.45	4.94
Off-Road Recreational Vehicles	0.00	2.44	0.00
Off-Road Equipment	139.50	57.81	7.02
Commercial Harbor Craft	15.52	1.67	0.50
Fuel Storage and Handling	0.00	10.84	0.00
Total	441.88	164.44	18.07

Summary of Mobile Source Emissions

Table 6 below summarizes total 2018 off-road and on-road mobile source emissions

Table 6: Year 2018 Mobile Source Emissions Summary

Mobile Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
On-Road Mobile Sources	442.16	164.67	22.08
Off-Road Mobile Sources	441.88	164.44	18.07
Total	884.04	329.11	40.2

Forecasting Emissions - Mobile Sources

The on-road mobile source inventory was forecasted using vehicle activity data in terms of VMT and criteria pollutant emission factor data for future years from CARB's on-road emission factor model, EMFAC2017. EMFAC2017 contains forecasted VMT and criteria pollutant emission factors for each year through 2050. The future year emission factors reflect fleet turnover and emission benefits from on-road mobile source regulations that have been adopted prior to the release of EMFAC2017. However, CARB has since adopted four additional on-road vehicle emission regulations that provide additional emission reductions in future years. The emission reductions from these four regulations were also applied to the relevant vehicle categories and emission processes (e.g., exhaust, evaporative, breakwear, and tirewear) to obtain the forecasted inventories in 2025 and 2030.

EMFAC2017 VMT for the county in which the community resides was used to estimate vehicle activity in the community for future years. This was done by calculating the growth rate of the county VMT from the 2017 base year to the target forecast years (2025 and 2030), and applying that growth rate to the base year VMT in the community. Once the on-road VMT for the future years was established in the community, criteria pollutant emissions for 2025 and 2030 were calculated by applying

the year-specific emission factors from EMFAC2017, as well as the additional emission reductions from the four new adopted regulations. Toxic air contaminant emissions for on-road mobile sources were obtained by applying CARB's chemical speciation profiles to the forecasted on-road mobile source TOG and PM emissions. The forecasted on-road criteria pollutant inventory and the forecasted on-road toxic inventory together comprise the final forecasted on-road mobile source inventory for the community.

The Tables below, summarizes the data used to forecast future-year mobile source emissions by broad source category groupings.

Tables 7 and 8 below summarize the total forecasted on-road emissions in the Stockton Community for the years 2025 and 2030:

Table 7: Year 2025 Projected On-Road Mobile Source Emissions

On-Road Mobile Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Heavy Duty Vehicles	123.93	2.63	2.18
Medium Duty Vehicles	29.03	0.54	0.96
Light Duty Vehicles	78.91	102.91	15.04
Bus	5.46	0.27	0.31
Total	237.32	106.35	18.48

Table 8: Year 2030 Projected On-Road Mobile Source Emissions

On-Road Mobile Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Heavy Duty Vehicles	128.26	2.87	2.35
Medium Duty Vehicles	29.21	0.47	0.96
Light Duty Vehicles	56.00	90.30	16.14
Bus	4.55	0.26	0.31
Total	218.02	93.89	19.75

Tables 9 and 10 below summarize the total forecasted off-road emissions in the Stockton Community for the years 2025 and 2030:

Table 9: Year 2025 Projected Off-Road Mobile Source Emissions

Off-Road Mobile Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Ocean Going Vessels	129.22	6.41	3.37
Trains	136.86	1.04	2.47
Recreational Boats	22.21	61.93	3.68
Off-Road Recreational Vehicles	0.00	1.96	0.00

Off-Road Mobile Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Off-Road Equipment	104.53	55.60	4.85
Commercial Harbor Craft	13.60	1.65	0.42
Fuel Storage and Handling	0.00	9.68	0.00
Total	406.42	138.26	14.79

Table 10: Year 2030 Projected Off-Road Mobile Source Emissions

Off-Road Mobile Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
Ocean Going Vessels	146.67	7.47	3.84
Trains	117.40	0.69	2.18
Recreational Boats	20.61	50.30	3.01
Off-Road Recreational Vehicles	0.00	1.66	0.00
Off-Road Equipment	89.93	55.77	4.10
Commercial Harbor Craft	12.77	1.59	0.36
Fuel Storage and Handling	0.00	9.44	0.00
Total	387.39	126.92	13.48

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Area-Wide Sources Emissions Inventory

Area-wide sources are categories such as consumer products, unpaved road dust, fireplaces, and prescribed burning for which emissions occur over a wide geographic area. Emissions for these categories are estimated by both ARB and the local air districts using various models and methodologies. A summary of the area-wide sources is presented below:

Consumer Products

The consumer products category reflects the four most recent surveys conducted by ARB staff for the years 2003, 2006, 2008, and 2010. Together these surveys collected updated product information and ingredient information for approximately 350 product categories. Based on the survey data, ARB staff determined the total product sales and total VOC emissions for the various product categories. The growth trend for most consumer product subcategories is based on the latest DOF population growth projections, except for aerosol coatings. Staff determined that a no-growth profile would be more appropriate for aerosol coatings based on survey data that show relatively flat sales of these products over the last decade.

Additional information on ARB's consumer products surveys is available at: <https://www.arb.ca.gov/consprod/survey/survey.htm>.

Architectural Coatings

The architectural coatings category reflects emission estimates based on a comprehensive ARB survey for the 2004 calendar year. The emission estimates include benefits of the 2000 and 2007 ARB Suggested Control Measures as adopted in District Rule 4601. These emissions are grown based on DOF population projections.

Additional information about ARB's architectural coatings program is available at: <https://www.arb.ca.gov/coatings/arch/arch.htm>.

Asphalt Paving/Roofing

Asphalt paving emissions were grown from 2008 estimates and asphalt roofing emissions were grown from a 2007 estimate. Emissions for both categories were developed using District methodologies. Emissions are estimated based on tons of asphalt applied and a default emission factor for each type of asphalt operation. The growth profile for both categories is based on ARB's REMI county economic forecasting model. The inventory reflects the reductions from District Rule 4641.

Additional information on the asphalt paving methodology is available at: <https://www.arb.ca.gov/ei/areasrc/districtmeth/sjvalley/sjvasphpav.pdf>
http://www.valleyair.org/Air_Quality_Plans/EmissionsMethods/MethodForms/Current/AsphaltPaving2008.pdf.

Residential Wood Combustion

Emissions were estimated for 2012 using a 2016 District methodology. The methodology is based on ARB's 2011 methodology, with several refinements based on a 2014 District survey. The inventory reflects the regional distribution and use of wood burning devices, refined fuel usage rates for several types of devices, and emissions reductions from the District's Burn Cleaner Program. The emissions estimates reflect emission factors from U.S. EPA's National Emission Inventory. No growth is assumed for future years because of limits in new construction and the stringency of the requirements of District Rule 4901. The reduction benefits of Rule 4901 are reflected in the inventory.

Additional information on the Residential Wood Combustion methodology is available at: <https://www.arb.ca.gov/ei/areasrc/arbmiscprocfuelcom.htm>.

Residential Natural Gas Combustion

The inventory for residential natural gas combustion is based on 2006 data provided by the District. Emissions are estimated based on the percentages of total natural gas consumed by various residential uses (space heating, water heating, cooking, other) obtained from the CEC and U.S. EPA AP-42 emission factors. Emissions were grown from 2006 using CEC projections of natural gas consumption. The water heating inventory reflects the emission reductions from District Rule 4902.

Additional information on the Residential Natural Gas Combustion methodology is available at: http://www.valleyair.org/Air_Quality_Plans/EmissionsMethods/MethodForms/Current/ResidentialNG2006.pdf.

Construction and Demolition

Emission estimates for building construction and road construction operations are based on ARB methodologies. Emissions are estimated by applying emission factors developed by Midwest Research Institute (MRI) to the acreage disturbed by construction. The emission estimates were grown from ARB estimates developed in 2002 and 1997, respectively. The growth profile for building construction is based on the REMI county economic forecast model. Road construction emissions are grown based on road construction forecasts by SJV transportation planning agencies (TPAs). The inventory reflects emission reductions from District Regulation VIII.

Additional information on Construction and Demolition methodology is available at: <https://www.arb.ca.gov/ei/areasrc/arbmiscproconstdem.htm>.

Paved Road Dust

Paved road dust emissions for 2012 were estimated using an ARB methodology consistent with the current U.S. EPA AP-42 methodology (January 2011) for quantifying dust emissions. Revisions include California-specific reductions in silt loading values, updated 2012 vehicle miles traveled (VMT) provided by SJV MPOs, updated VMT distributions (travel fractions) from Caltrans for the year 2008, and

incorporation of precipitation correction factors. Emissions were grown using VMT projections from the SJV MPOs. The inventory also reflects emission reductions from District Regulation VIII.

Additional information on Paved Road Dust methodology is available at:
<https://www.arb.ca.gov/ei/areasrc/arbmiscprocpaverddst.htm>.

Unpaved Road Dust - Farm Roads

Emissions for unpaved farm roads were updated based on ARB's methodology and 2012 harvested crop acreage from NASS. Emissions reflect crop specific VMT factors and an updated emission factor of 2.0 lbs PM10/VMT, based on California test data conducted by the University of California, Davis (UC Davis), and the Desert Research Institute (DRI). An updated particle size profile (ARB PM profile #470) was used, which reduces the PM2.5 fraction by about 50%. Temporal profiles were updated based on crop specific activity profiles. Growth is based on projected FMMP farmland acreage for 2010-2020, which results in a slight annual decline. In addition, the inventory reflects the emission reductions from District Rule 4550 and District Regulation VIII.

Additional information on Unpaved Farm Road Dust methodology is available at:
<https://www.arb.ca.gov/ei/areasrc/arbmiscprocunpaverddst.htm>.

Unpaved Non-Farm Road Dust

Emissions from unpaved non-farm roads were estimated from 2008 unpaved road data collected from the California Statewide Local Streets and Roads Needs Assessment, Caltrans, and the District. Dust emissions were calculated using the same emission factor (2.00 lbs PM10/VMT) and particle size fraction (ARB PM profile #470) described above for unpaved farm roads, and the addition of a rainfall adjustment factor. Temporal profiles were revised. Staff assumed no growth for this category based on the assumption that existing unpaved roads tend to get paved as vehicle traffic on them increases, which counteracts any additional emissions from new unpaved roads. The inventory includes the emission reduction benefits of District Regulation VIII.

Additional information on Unpaved Non-Farm Road Dust methodology is available at:
<https://www.arb.ca.gov/ei/areasrc/arbmiscprocunpaverddst.htm>.

Windblown Dust from Unpaved Roads and Associated Areas

Emissions for this source category were estimated based on a 1997 ARB methodology reflecting unpaved road mileage and local parameters that affect wind erosion. The estimates assume no growth. The inventory includes the emission reduction benefits of District Regulation VIII.

Additional information on Windblown Dust from Unpaved Roads and Associated Areas methodology is available at:
<https://www.arb.ca.gov/ei/areasrc/arbmiscprocugwbdst.htm>.

Structural and Automobile Fires

Emissions from structural and automobile fires were estimated using ARB's 1999 methodology. Structural fire emissions are based on rates of structural and content material loss per fire, average combustible content, and emission factors obtained from test data. Automobile fire emissions are based on the number of vehicle fires per year and composite emission factors derived from AP-42 emission factors. No growth is assumed for this category.

Additional information on Structural and Automobile Fires methodology is available at: <https://www.arb.ca.gov/ei/areasrc/arbmiscprocfires.htm>.

Commercial Cooking

The commercial cooking inventory is based on emissions data reported by the District for 2008. The emissions estimates were developed from the number of restaurants, the number and types of cooking equipment, the food type, and default emission factors from U.S. EPA's 2002 National Emissions Inventory. The growth profile reflects the latest population projections provided by the California DOF. The inventory also reflects the emission reductions from District Rule 4692.

Additional information on Commercial Cooking methodology is available at: <https://www.arb.ca.gov/ei/areasrc/districtmeth/sjvalley/CommercialCooking2006.pdf>.

For additional information on all area source Methodologies and categories visit ARB and Districts Web pages:

<https://www3.arb.ca.gov/ei/areasrc/areameth.htm>

http://www.valleyair.org/Air_Quality_Plans/EmissionsMethods/EmissionsMethods.htm

Table 11 below summarizes the total projected Area Source emissions for each Category in the Stockton Community for 2018:

Table 11: Year 2018 Area Source Emissions for Stockton Community

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
FUEL COMBUSTION	161.57	7.02	4.50
MANUFACTURING AND INDUSTRIAL	121.00	0.75	1.41
SERVICE AND COMMERCIAL	40.52	6.06	3.09
OTHER (FUEL COMBUSTION)	0.05	0.20	0.00
WASTE DISPOSAL	0.00	81.37	0.01
SEWAGE TREATMENT	0.00	0.00	0.00
OTHER (WASTE DISPOSAL)	0.00	81.37	0.01
CLEANING AND SURFACE COATINGS	0.00	107.89	0.00
LAUNDERING	0.00	0.00	0.00
DEGREASING	0.00	17.68	0.00
COATINGS AND RELATED PROCESS SOLVENTS	0.00	59.86	0.00
PRINTING	0.00	24.25	0.00
ADHESIVES AND SEALANTS	0.00	6.10	0.00
PETROLEUM PRODUCTION AND MARKETING	0.00	10.86	0.00
PETROLEUM MARKETING	0.00	10.86	0.00
INDUSTRIAL PROCESSES	0.00	2.94	3.42
CHEMICAL	0.00	0.57	0.00
FOOD AND AGRICULTURE	0.00	2.37	0.00
MINERAL PROCESSES	0.00	0.00	2.69
WOOD AND PAPER	0.00	0.00	0.73
SOLVENT EVAPORATION	0.00	229.04	0.00
CONSUMER PRODUCTS	0.00	141.91	0.00
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	0.00	75.36	0.00
PESTICIDES/FERTILIZERS	0.00	1.60	0.00
ASPHALT PAVING / ROOFING	0.00	10.17	0.00
MISCELLANEOUS PROCESSES	40.24	18.55	75.09
RESIDENTIAL FUEL COMBUSTION	40.18	12.28	12.54
CONSTRUCTION AND DEMOLITION	0.00	0.00	10.57
PAVED ROAD DUST	0.00	0.00	13.55
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.04
FIRES	0.06	0.19	0.20
COOKING	0.00	6.08	38.18
OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00
Total	201.81	457.67	83.02

Forecasting Emissions – Area Sources

Emission forecasts are based on growth profiles that in many cases incorporate historical trends up to the base year or beyond. The growth surrogates used to forecast the emissions from these categories are presented below.

Tables 12 and 13 below summarize the total projected area source emissions for each category in the Stockton Community for years 2025 and 2030:

Table 12: Year 2025 Projected Area Source Emissions for Stockton Community

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
FUEL COMBUSTION	163.37	7.26	4.64
MANUFACTURING AND INDUSTRIAL	123.72	0.77	1.44
SERVICE AND COMMERCIAL	39.60	6.29	3.20
OTHER (FUEL COMBUSTION)	0.04	0.20	0.00
WASTE DISPOSAL	0.00	89.07	0.02
SEWAGE TREATMENT	0.00	0.00	0.00
OTHER (WASTE DISPOSAL)	0.00	89.07	0.02
CLEANING AND SURFACE COATINGS	0.00	121.72	0.00
LAUNDERING	0.00	0.00	0.00
DEGREASING	0.00	17.74	0.00
COATINGS AND RELATED PROCESS SOLVENTS	0.00	68.68	0.00
PRINTING	0.00	28.81	0.00
ADHESIVES AND SEALANTS	0.00	6.50	0.00
PETROLEUM PRODUCTION AND MARKETING	0.00	9.77	0.00
PETROLEUM MARKETING	0.00	9.77	0.00
INDUSTRIAL PROCESSES	0.00	3.13	3.68
CHEMICAL	0.00	0.63	0.00
FOOD AND AGRICULTURE	0.00	2.51	0.00
MINERAL PROCESSES	0.00	0.00	2.96
WOOD AND PAPER	0.00	0.00	0.73
SOLVENT EVAPORATION	0.00	254.42	0.00
CONSUMER PRODUCTS	0.00	159.93	0.00
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	0.00	82.41	0.00
PESTICIDES/FERTILIZERS	0.00	1.75	0.00
ASPHALT PAVING / ROOFING	0.00	10.33	0.00
MISCELLANEOUS PROCESSES	36.90	19.28	87.89
RESIDENTIAL FUEL COMBUSTION	36.84	12.41	12.73
CONSTRUCTION AND DEMOLITION	0.00	0.00	18.33
PAVED ROAD DUST	0.00	0.00	14.78

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.04
FIRES	0.06	0.21	0.22
COOKING	0.00	6.66	41.79
OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00
Total	200.27	504.66	96.24

Table 13: Year 2030 Projected Area Source Emissions for Stockton Community

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
FUEL COMBUSTION	169.02	7.51	4.82
MANUFACTURING AND INDUSTRIAL	129.87	0.81	1.51
SERVICE AND COMMERCIAL	39.10	6.50	3.31
OTHER (FUEL COMBUSTION)	0.04	0.20	0.00
WASTE DISPOSAL	0.00	94.05	0.02
SEWAGE TREATMENT	0.00	0.00	0.00
OTHER (WASTE DISPOSAL)	0.00	94.05	0.02
CLEANING AND SURFACE COATINGS	0.00	130.75	0.00
LAUNDERING	0.00	0.00	0.00
DEGREASING	0.00	17.74	0.00
COATINGS AND RELATED PROCESS SOLVENTS	0.00	74.19	0.00
PRINTING	0.00	32.29	0.00
ADHESIVES AND SEALANTS	0.00	6.54	0.00
PETROLEUM PRODUCTION AND MARKETING	0.00	9.25	0.00
PETROLEUM MARKETING	0.00	9.25	0.00
INDUSTRIAL PROCESSES	0.00	3.34	3.85
CHEMICAL	0.00	0.67	0.00
FOOD AND AGRICULTURE	0.00	2.67	0.00
MINERAL PROCESSES	0.00	0.00	3.13
WOOD AND PAPER	0.00	0.00	0.73
SOLVENT EVAPORATION	0.00	270.76	0.00
CONSUMER PRODUCTS	0.00	171.87	0.00
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	0.00	86.99	0.00
PESTICIDES/FERTILIZERS	0.00	1.85	0.00
ASPHALT PAVING / ROOFING	0.00	10.06	0.00
MISCELLANEOUS PROCESSES	35.67	19.76	109.08
RESIDENTIAL FUEL COMBUSTION	35.61	12.51	12.87
CONSTRUCTION AND DEMOLITION	0.00	0.00	36.33
PAVED ROAD DUST	0.00	0.00	15.48
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.04

Source Categories	NOx (tpy)	VOC (tpy)	PM2.5 (tpy)
FIRES	0.07	0.22	0.23
COOKING	0.00	7.03	44.13
OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00
Total	204.69	535.42	117.77