

Appendix A

Air Quality and Greenhouse Gas Emissions Modeling

SJCOG 2022 RTP/SCS Air Quality Emission Calculations

Scenario	VMT*	ROG (tons/day)	NO _x (tons/day)	PM ₁₀ (tons/day) ¹	PM _{2.5} (tons/day) ¹	Fugitive PM ₁₀ (tons/day) ²	Fugitive PM _{2.5} (tons/day) ²	CO (tons/day)	SO _x (tons/day)	CO _{2e} (tons/day)	CO _{2e} (metric tons/year)
2016 SJCOG Baseline											
On-Road Motor Vehicles	17,015,116.00	5.847	17.264	0.824	0.458	0.512	0.161	54.613	0.092	9,231	3,056,728
2046 No Build											
On-Road Motor Vehicles	23,220,752.00	2.044	4.716	0.752	0.276	0.687	0.214	19.292	0.081	8,190	2,712,035
2046 Scenario B											
On-Road Motor Vehicles	23,397,883.00	2.060	4.752	0.758	0.278	0.693	0.216	19.439	0.081	8,253	2,732,723
2046 Project (Scenario E)											
On-Road Motor Vehicles	23,495,442.00	2.069	4.772	0.761	0.279	0.696	0.217	19.520	0.082	8,287	2,744,117
Difference (2046 Project - Baseline)	6,480,326.00	-3.778	-12.493	-0.062	-0.178	0.184	0.056	-35.093	-0.010	-944.09	-312,610.69
%	38%	-65%	-72%	-7.6%	-39.0%	36%	35%	-64%	-11%	-10%	-10%
Difference (2046 Project - No Build)	274,690.00	0.02	0.06	0.01	0.00	0.01	0.00	0.23	0.00	96.89	32,082.03
%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Difference (2046 Project - ScenB)	97,559.00	-2.71	-5.48	-0.83	-0.67	-0.33	0.13	-20.08	-0.19	-8,253.01	-2,732,723.10
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Notes

* VMT from SJCOG "Transportation Model Metrics" Spreadsheet. Not adjusted for induced demand.

Annual emissions - Total

1) Includes tire and break wear in the total PM

2) Includes only tire and break wear

Scenario	Diesel PM2.5 (tons/day)	Diesel PM10 (tons/day) ¹	Diesel NO _x (tons/day)	Diesel SO _x (tons/day)	Diesel CO (tons/day)
2016 SJCOG Baseline					
On-Road Motor Vehicles	0.261	0.27	11.98	0.02	2.26
2046 No Build					
On-Road Motor Vehicles	0.049	0.05	3.73	0.03	1.37
2046 Scenario B					
On-Road Motor Vehicles	0.049	0.05	3.76	0.03	1.38
2046 Project (Scenario E)					
On-Road Motor Vehicles	0.049	0.05	3.78	0.03	1.38
Difference (2046 Project - Baseline)	-0.212	-0.222	-8.206	0.001	-0.873
%	-81%	-81%	-68%	3%	-39%
Difference (2046 Project - No Build)	0.001	0.001	0.044	0.000	0.016
Difference (2046 Project - ScenB)	0.000	0.000	0.016	0.000	0.006

Notes

Diesel annual emissions -Total Exhaust (TOTEX)

Group	Area	GAI	Sub-Area	Cal. Year	Season	Title	Veh. Tech	EMFAC2011 Category	Population	Total_VMT	cVMT	eVMT	Trips	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_TOSEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS	TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOSEX	ROG_DIURN	ROG_HTSK	ROG_RUNLS		
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	All Vehicles	All Vehicles	435,230.8	17,015,116.0	16,960,199.3	54,916.7	2,276,638.8	2.01	0.0778	1.91	3.99	1.12	0.4357	0.9683	6.51	1.52	0.0624	1.74	3.33	1.12	0.4357	0.9683		
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	All Other Buses-Dal	All Other Buses - Dal	65.3	2,971.9	2,971.9	0	581.4	0.0055	0.0001	0	0.0055			0.0055	0.0048	0.0001		0.0049						
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LDA - Gas	LDA - Gas	1,087.1	43,402.5	0	0	4,937.3	0.0021		0	0				0.0021	0.0018			0.0018					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LDA - Oh	LDA - Oh	648.1	22,688.5	0	22,688.5	0	0							0				0					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LDA-Gas	LDA - Gas	213,536.4	8,669,883.8	8,669,883.8	0	989,114.7	0.4879		0.7965	1.28	0.5103	0.1666	0.4058	0.0002	0.0025	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LDA-Phe	LDA - Gas	1,244.4	67,038.7	36,325.3	30,711.4	5,145.8	0.0002	0.0011	0.0013	0.0009	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0010	0.0011	0.0009	0.0002	0.0002		
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD11-Dal	LD11 - Dal	35.8	690.1	0	0	12.6	0.0002							0.0002	0.0002			0.0002					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD11-Oh	LD11 - Oh	7.99	39.8	0	183.6	0								0				0					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD11-Gas	LD11 - Gas	22,506.7	758,899.2	758,899.2	0	98,475.8	0.1184	0.1391	0.2574	0.1186	0.0360	0.1027	0.5126	0.0849	0.0002	0.1271	0.0002	0.1271	0.1186	0.0360	0.1027		
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD12-Dal	LD12 - Dal	125.8	5,805.2	5,805.2	0	598.3	0.0003							0.0003	0.0003			0.0003					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD12-Oh	LD12 - Oh	7.36	186.8	0	186.8	0	33.7	0						0				0					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD12-Gas	LD12 - Gas	70,367.1	2,651,085.5	2,651,085.5	0	321,665.8	0.2274	0.3466	0.5740	0.1806	0.0598	0.1447	0.9591	0.1625	0.0000	0.0000	0.0000	0.0000	0.1806	0.0598	0.1447		
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LD12-Phe	LD12 - Gas	6.73	381.8	206.9	174.9	27.8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LHD1-Dal	LHD1 - Gas	8,282.0	313,153.5	313,153.5	0	104,177.3	0.1176	0.0011	0.0011	0.1187	0.0333	0.1187	0.0333	0.0000	0.0000	0.0010	0.0010	0.0333	0.1187	0.0333	0.1187	0.0333	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LHD1-Gas	LHD1 - Gas	8,096.9	265,238.7	265,238.7	0	120,678.7	0.0624	0.0002	0.0383	0.1070	0.0339	0.0113	0.0506	0.2029	0.0452	0.0043	0.0351	0.0845	0.0339	0.1013	0.0506	0.0339	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LHD2-Dal	LHD2 - Dal	2,351.0	93,437.0	93,437.0	0	29,572.6	0.0297	0.0003	0.0301	0.0301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	LHD2-Gas	LHD2 - Gas	978.0	33,328.4	33,328.4	0	14,570.2	0.0056	0.0008	0.0040	0.0103	0.0037	0.0011	0.0055	0.0206	0.0038	0.0005	0.0037	0.0080	0.0037	0.0011	0.0055	0.0038	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MCY-Gas	MCY - Gas	11,590.2	69,729.4	69,729.4	0	23,180.4	0.1623	0.0030	0.2153	0.0658	0.0920	0.0963	0.4684	0.1404	0.0000	0.0488	0.1892	0.0658	0.0000	0.0920	0.1892	0.0658	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MDV-Dal	MDV - Dal	867.2	40,555.9	40,555.9	0	4,250.6	0.0010							0.0010	0.0009			0.0009					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MDV-Oh	MDV - Oh	19.8	4.22	0	19.8	0								0				0					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MDV-Gas	MDV - Gas	76,648.8	2,644,188.6	2,644,188.6	0	347,384.5	0.2813	0.5132	0.7945	0.1865	0.0626	0.1517	1.20	0.1992	0.0000	0.4688	0.6680	0.1865	0.0626	0.1517	0.1992	0.6680	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MDV-Phe	MDV - Gas	132.1	1,795.2	972.8	822.4	132.7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MH-Dal	MH - Dal	556.6	5,378.7	5,378.7	0	55.7	0.0010							0.0010	0.0009			0.0009					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	MH-Gas	MH - Gas	1,839.6	15,449.5	15,449.5	0	184.0	0.0042	0.0001	0.0042	0.0119	0.0037	0.0001	0.0200	0.0030	0.0000	0.0000	0.0000	0.0000	0.0119	0.0037	0.0001		
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	Motor Coach-Dal	Motor Coach - Dal	17.8	2,165.0	2,165.0	0	403.7	0.0002							0.0002	0.0012			0.0012					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	OBUS-Gas	OBUS - Gas	191.5	10,328.2	10,328.2	0	3,831.3	0.0031	0.0002	0.0013	0.0045	0.0006	0.0002	0.0007	0.0060	0.0021	0.0002	0.0011	0.0006	0.0002	0.0011	0.0006	0.0002	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	PTO-Dal	PTO - Dal	0	16,886.4	16,886.4	0	0	0.0137							0.0137	0.0121			0.0121					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	PTO-Oh	PTO - Oh	0	0	0	0	0								0				0					
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	SBUS-Dal	SBUS - Dal	500.3	10,546.5	10,546.5	0	7,244.0	0.0013	0.0001	0.0014	0.0014	0.0000	0.0014	0.0011	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	SBUS-Gas	SBUS - Gas	37.2	2,036.6	2,036.6	0	148.8	0.0028	0.0006	0.0028	0.0002	0.0002	0.0001	0.0002	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0002	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	SBUS-NG	SBUS - NG	53.6	1,245.9	1,245.9	0	77.6	0.0053	0.0013	0.0053	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 4-Dal	T6 CAIRP-small-Dal	7.81	577.8	577.8	0	174.9	0.0001	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 4-Dal	T6 CAIRP-heavy-Dal	9.86	792.6	792.6	0	226.7	0.0001	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 4-Dal	T6 CAIRP-heavy-Dal	25.5	2,071.0	2,071.0	0	586.0	0.0004	0.0000	0.0004	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 4-Dal	T6 Instate Delivery Class 4-Dal	83.2	12,990.6	12,990.6	0	1,912.1	0.0022	0.0000	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 4-Dal	T6 Instate Delivery Class 4-Dal	299.7	6,391.6	6,391.6	0	3,841.1	0.0051	0.0000	0.0051	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 5-Dal	T6 Instate Delivery Class 5-Dal	197.1	4,541.2	4,541.2	0	2,812.4	0.0034	0.0002	0.0037	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 6-Dal	T6 Instate Delivery Class 6-Dal	667.1	19,707.7	19,707.7	0	9,519.4	0.0149	0.0008	0.0157	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	SJCOG	All Sub-Areas	All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 7-Dal	T6 Instate Delivery Class 7-Dal	293.7	5,919.5	5,919.5	0	4,191.2	0.0045	0.0004	0.0049	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	SJCOG	All Sub-Areas	All Sub-Areas																											

ROG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX
5.85	39.4	0.5729	14.6	54.6	14.8	0.8874	1.56	17.3	8,937.0	125.2	169.3	9,231.4	0.2998	0.0055	0.0063	0.3116	0.1838	0.3281	0.8235	0.2856	0.0053	0.0058	0.2988	0.0459	0.1148	0.4576	0.0886	0.0012
0.0049	0.0114	0.0003		0.0117	0.0392	0.0007	0.0000	0.0040	4.22	0.0471		4.26	0.0021	0.0000		0.0021	0.0000	0.0002	0.0023	0.0020	0.0000		0.0020	0.0000	0.0001	0.0000	0.0000	0.0000
0.0018	0.0193			0.0193	0.0172			0.0172	11.6			11.6	0.0011	0.0004		0.0011	0.0004	0.0004	0.0014	0.0010			0.0010	0.0000	0.0001	0.0001	0.0001	0.0001
0	0			0	0			0	0			0	0	0		0	0	0	0	0			0	0	0	0	0	0
2.15	16.4		6.61	23.0	1.29		0.4826	1.78	3,008.4		77.7	3,086.0	0.0162		0.0031	0.0193	0.0765	0.0818	0.1775	0.0149		0.0028	0.0177	0.0191	0.0286	0.0655	0.0303	
0.0024	0.0020		0.0074	0.0275	0.0003		0.0006	0.0009	11.8	0.3774		12.2	0.0001		0.0000	0.0001	0.0006	0.0003	0.0010	0.0001		0.0000	0.0001	0.0001	0.0001	0.0001	0.0003	0.0001
0.0002	0.0010			0.0010	0.0010			0.0010	0.3380			0.3380	0.0001			0.0001	0.0000	0.0000	0.0001	0.0001			0.0001	0.0000	0.0000	0.0001	0.0000	0.0000
0	0			0	0			0	0			0	0	0		0	0	0	0	0			0	0	0	0	0	0
0.4872	3.12		1.24	4.38	0.2986		0.0761	0.3746	395.3		9.11	314.4	0.0031		0.0006	0.0037	0.0087	0.0086	0.0196	0.0029		0.0006	0.0034	0.0031	0.0034	0.0031	0.0031	0.0031
0.0002	0.0014			0.0014	0.0009			0.0009	2.18			2.18	0.0001			0.0001	0.0001	0.0001	0.0002	0.0001			0.0001	0.0000	0.0000	0.0002	0.0000	0.0000
0	0			0	0			0	0			0	0	0		0	0	0	0	0			0	0	0	0	0	0
0.8643	7.08		2.83	9.91	0.8565		0.2924	1.15	1,212.9		33.9	1,246.9	0.0056		0.0011	0.0067	0.0234	0.0296	0.0596	0.0052		0.0010	0.0062	0.0058	0.0103	0.0233	0.0122	
0.0000	0.0001		0.0000	0.0002	0.0000		0.0000	0.0000	0.0673		0.0025	0.0699	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1043	0.3154			0.3237	1.31			1.34	216.9			218.2	0.0249		0.0003	0.0251	0.0041	0.0259	0.0562	0.0238		0.0003	0.0240	0.0010	0.0094	0.0345	0.0021	0.0000
0.1804	0.8933		0.0331	0.9814	1.31	0.1531	0.0004	0.0045	2,479.9	294.9	1.04	2,53	288.4			0.0011	0.0012	0.0228	0.0252	0.0006		0.0001	0.0010	0.0006	0.0080	0.0096	0.0030	0.0000
0.0264	0.0753		0.0024	0.0777	0.3094	0.0067		0.3160	81.2	0.5842		81.8	0.0061	0.0001		0.0062	0.0012	0.0094	0.0168	0.0058	0.0001		0.0059	0.0003	0.0033	0.0095	0.0008	0.0000
0.0183	0.0780		0.0040	0.0495	0.1315	0.0173	0.0000	0.0117	0.0291	41.4	0.1456	0.382	41.9	0.0001		0.0000	0.0001	0.0003	0.0037	0.0001		0.0000	0.0001	0.0001	0.0001	0.0013	0.0004	0.0000
0.4423	1.48			0.2239	1.70	0.0615	0.0096	0.0291	12.3			13.4	0.0002		0.0001	0.0003	0.0009	0.0015	0.0001	0.0001		0.0001	0.0002	0.0001	0.0002	0.0006	0.0002	0.0000
0.0006	0.0119			0.0119	0.0058			0.0058	19.6	0.0004		19.6	0.0004			0.0004	0.0004	0.0012	0.0004	0.0004		0.0004	0.0001	0.0001	0.0007	0.0002	0.0000	0.0000
0	0			0	0			0	0			0	0	0		0	0	0	0	0			0	0	0	0	0	0
1.07	7.87		3.17	11.0	7.87		0.4074	1.51	1,436.7		43.4	1,480.1	0.0058		0.0013	0.0070	0.0233	0.0304	0.0608	0.0053		0.0012	0.0065	0.0058	0.0107	0.0230	0.0145	
0.0001	0.0005		0.0002	0.0007	0.0000		0.0000	0.0000	0.3166	0.0000	0.0148	0.3314	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0009	0.0033			0.0033	0.0375		0.0375	0.0000	6.32			6.32	0.0011			0.0011	0.0001	0.0003	0.0015	0.0010			0.0010	0.0000	0.0000	0.0000	0.0000	0.0000
0.0188	0.0836			0.0009	0.0845	0.0145	0.0001	0.0146	32.8	0.0000		32.8	0.0000		0.0000	0.0000	0.0002	0.0008	0.0010	0.0000		0.0000	0.0001	0.0001	0.0003	0.0004	0.0003	
0.0101	0.0031		0.0011	0.0042	0.0183	0.0024	0.0004	0.0210	4.28	0.0005	0.0004	4.28	0.0005	0.0000		0.0005	0.0005	0.0002	0.0008	0.0005	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0049	0.0503		0.0012	0.0223	0.0738	0.0146	0.0000	0.0020	0.0146	0.0000	0.0020	0.0146	0.0000		0.0000	0.0000	0.0000	0.0000	0.0007	0.0000		0.0000	0.0000	0.0000	0.0002	0.0002	0.0000	0.0000
0.0121	0.0435			0	0.0435	0.1750		0.1750	41.4			41.4	0.0049			0.0049	0.0049	0.0049	0.0046	0.0046			0.0046	0.0046	0.0046	0.0046	0.0046	0.0046
0	0			0	0			0	0			0	0	0		0	0	0	0	0			0	0	0	0	0	0
0.0012	0.0031		0.0017	0.0048	0.0811	0.0162	0.0024	0.0997	13.4	1.29		14.7	0.0005	0.0000		0.0000	0.0005	0.0001	0.0005	0.0000		0.0000	0.0005	0.0000	0.0000	0.0002	0.0001	0.0000
0.0033	0.0589		0.0022	0.0623	0.0038	0.0000	0.0000	0.0038	1.90	0.0039	0.0076	2.01	0.0000		0.0000	0.0000	0.0000	0.0001	0.0001	0.0000		0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
0.0001	0.0181			0.0181	0.0009	0.0003		0.0009	1.96	0.0000		1.96	0.0000		0.0000	0.0000	0.0000	0.0001	0.0001	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0001	0.0003		0.0000	0.0003	0.0022	0.0001	0.0001	0.0023	0.6882	0.0057		0.6939	0.0001		0.0000	0.0000	0.0000	0.0000	0.0001	0.0001		0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000
0.0001	0.0004		0.0000	0.0004	0.0000	0.0001	0.0001	0.0001	0.0031	0.0004		0.0031	0.0000		0.0000	0.0000	0.0000	0.0000	0.0002	0.0001		0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000
0.0003	0.0011		0.0001	0.0012	0.0078	0.0002	0.0002	0.0082	2.47	0.0191		2.49	0.0003	0.0000		0.0003	0.0000	0.0000	0.0004	0.0003		0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
0.0019	0.0066		0.0002	0.0068	0.0474	0.0006	0.0007	0.0487	14.8	0.0614		14.9	0.0017	0.0000		0.0017	0.0002	0.0006	0.0025	0.0016		0.0000	0.0016	0.0000	0.0002	0.0019	0.0001	0.0000
0.0048	0.0148			0.0028	0.0581	0.0000	0.0000	0.0581	9.66	0.0764		10.3	0.0001		0.0000	0.0001	0.0001	0.0001	0.0027	0.0021		0.0001	0.0021	0.0000	0.0000	0.0001	0.0000	0.0000
0.0032	0.0079		0.0021	0.0099	0.0378	0.0068	0.0012	0.0458	6.28	0.4942		6.78	0.0014	0.0001		0.0015	0.0001	0.0002	0.0018	0.0014		0.0001	0.0014	0.0000	0.0001	0.0015	0.0001	0.0000
0.0138	0.0341		0.0070	0.0411	0.1641	0.0232	0.0041	0.1914	27.3	1.67		28.9	0.0062	0.0002		0.0064	0.0003	0.0010	0.0077	0.0059	0.0002		0.0061	0.0001	0.0004	0.0066	0.0003	0.0000
0.0043	0.0102		0.0028	0.0129	0.0551	0.0098	0.0016	0.0665	8.28	0.7361		9.02	0.0018	0.0001		0.0019	0.0001	0.0003	0.0023	0.0017	0.0001		0.0019	0.0000	0.0001	0.0020	0.0001	0.0000
0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0001		0.0005	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0080	0.0208		0.0061	0.0269	0.1146	0.0202	0.0031	0.1379																				

SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL	Fuel_NG
0.0020	0.0917	713.0	234.8	2.18
	0.0000		0.3837	
	0.0001		1.05	
	0			
0.0009	0.0312	332.8		
0.0000	0.0001	1.30		
	0.0000		0.0304	
	0			
0.0001	0.0032	34.3		
	0.0000		0.1962	
	0			
0.0004	0.0126	134.6		
0.0000	0.0000	0.0075		
	0.0021		19.6	
0.0000	0.0030	32.0		
	0.0008		7.36	
0.0000	0.0004	4.49		
0.0000	0.0002	1.78		
	0.0002		1.78	
	0			
0.0005	0.0150	159.7		
0.0000	0.0000	0.0354		
	0.0001		0.5688	
0.0000	0.0003	3.51		
	0.0000		0.3831	
0.0000	0.0002	2.28		
	0.0004		3.73	
	0			
	0.0001		1.32	
0.0000	0.0000	0.2260		
	0			0.2411
	0.0000		0.0624	
	0.0000		0.0856	
	0.0000		0.2237	
	0.0001		1.34	
0.0001	0.0001	0.9301		
	0.0001		0.6099	
	0.0003		2.60	
	0.0001		0.8118	
	0			0.0001
	0.0002		1.92	
	0.0006		5.26	
	0.0004		3.96	
	0.0003		2.79	
	0			0.0003
	0.0000		0.0519	
	0.0005		4.32	
	0			0.0004
	0.0000		0.0358	
	0.0000		0.0490	
	0.0000		0.1281	
	0.0001		0.8898	
	0.0000		0.1340	
	0			0.0019
	0.0000		0.3390	
	0			0.0107
	0.0001		0.5306	
	0			0.0078
	0.0001		0.8478	
	0			0.0147
	0.0000		0.1397	
	0			0.0003
	0.0000		0.0286	
	0			0.0001
	0.0000		0.0378	
	0			0.0001
0.0000	0.0005	5.65		
	0.0046		43.0	
	0.0054		50.6	
	0.0020		18.5	
	0.0001		0.7189	
	0.0002		1.91	
	0.0003		2.43	
	0			0.0445
	0.0003		2.99	
	0			0.1249
	0.0005		4.77	
	0			0.8312
	0.0001		1.30	
	0			0.0322
	0.0005		4.65	
	0			0.1128
	0.0009		8.23	
	0			0.1965
	0.0032		29.7	
	0			0.3455
	0.0000		0.1646	
0.0000	0.0000	0.0542		
	0.0001		1.16	
	0			
0.0000	0.0000	0.2536		
	0			0.2167

Group	Area	GAI	Sub-Area	Cal. Year	Season	Title	Veh_Tech	EMFAC2011 Category	Population	Total_VMT	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	Nox_RUNEX
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	All Other Buses-Dsl	All Other Buses - Dsl	65.3	2,971.9	0.0114	0.0003		0.0117	0.0392
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	LDA-Dsl	LDA - Dsl	1,087.1	43,402.5	0.0193			0.0193	0.0172
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	LDT1-Dsl	LDT1 - Dsl	35.8	690.1	0.0010			0.0010	0.0010
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	LDT2-Dsl	LDT2 - Dsl	125.8	5,805.2	0.0014			0.0014	0.0009
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	LHD1-Dsl	LHD1 - Dsl	8,282.0	313,153.5	0.3154	0.0083		0.3237	1.31
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	LHD2-Dsl	LHD2 - Dsl	2,351.0	93,437.0	0.0753	0.0024		0.0777	0.3094
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	MDV-Dsl	MDV - Dsl	867.2	40,555.9	0.0119			0.0119	0.0058
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	MH-Dsl	MH - Dsl	556.6	5,378.7	0.0033			0.0033	0.0375
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	Motor Coach-Dsl	Motor Coach - Dsl	17.6	2,185.0	0.0031	0.0011		0.0042	0.0183
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	PTO-Dsl	PTO-Dsl	0	16,886.4	0.0435			0.0435	0.1750
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	SBUS-Dsl	SBUS - Dsl	500.3	10,546.5	0.0031	0.0017		0.0048	0.0811
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 4-Dsl	T6 CAIRP small-Dsl	7.61	577.8	0.0003	0.0000		0.0003	0.0022
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 5-Dsl	T6 CAIRP small-Dsl	9.86	792.6	0.0004	0.0000		0.0005	0.0030
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 6-Dsl	T6 CAIRP small-Dsl	25.5	2,071.0	0.0011	0.0001		0.0012	0.0078
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 CAIRP Class 7-Dsl	T6 CAIRP heavy-Dsl	83.2	12,990.6	0.0066	0.0002		0.0068	0.0474
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 4-Dsl	T6 instate small-Dsl	269.7	6,981.6	0.0121	0.0028		0.0149	0.0581
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 5-Dsl	T6 instate small-Dsl	197.1	4,541.2	0.0079	0.0021		0.0099	0.0378
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 6-Dsl	T6 instate small-Dsl	667.1	19,707.7	0.0341	0.0070		0.0411	0.1641
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Delivery Class 7-Dsl	T6 instate heavy-Dsl	293.7	5,919.5	0.0102	0.0028		0.0129	0.0551
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Other Class 4-Dsl	T6 instate small-Dsl	539.1	15,516.3	0.0208	0.0061		0.0269	0.1146
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Other Class 5-Dsl	T6 instate small-Dsl	858.5	43,807.8	0.0584	0.0097		0.0681	0.3222
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Other Class 6-Dsl	T6 instate small-Dsl	850.8	32,537.7	0.0442	0.0097		0.0539	0.2426
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Other Class 7-Dsl	T6 instate heavy-Dsl	946.1	22,176.4	0.0252	0.0099		0.0350	0.1597
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Tractor Class 6-Dsl	T6 instate small-Dsl	9.68	430.8	0.0005	0.0001		0.0007	0.0030
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Instate Tractor Class 7-Dsl	T6 instate heavy-Dsl	518.6	37,176.3	0.0471	0.0054		0.0525	0.2919
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 OOS Class 4-Dsl	T6 OOS small-Dsl	4.36	330.8	0.0002	0.0000		0.0002	0.0012
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 OOS Class 5-Dsl	T6 OOS small-Dsl	5.66	453.8	0.0002	0.0000		0.0003	0.0017
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 OOS Class 6-Dsl	T6 OOS small-Dsl	14.6	1,185.8	0.0006	0.0000		0.0007	0.0045
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 OOS Class 7-Dsl	T6 OOS heavy-Dsl	47.7	8,622.0	0.0047	0.0001		0.0048	0.0327
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Public Class 4-Dsl	T6 Public-Dsl	49.0	924.8	0.0002	0.0002		0.0004	0.0087
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Public Class 5-Dsl	T6 Public-Dsl	66.6	2,551.6	0.0005	0.0004		0.0009	0.0147
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Public Class 6-Dsl	T6 Public-Dsl	70.0	3,948.8	0.0013	0.0004		0.0017	0.0421
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Public Class 7-Dsl	T6 Public-Dsl	167.7	6,139.7	0.0022	0.0009		0.0032	0.0692
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Utility Class 5-Dsl	T6 Utility-Dsl	39.5	1,154.8	0.0002	0.0002		0.0003	0.0029
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Utility Class 6-Dsl	T6 Utility-Dsl	10.3	218.1	0.0000	0.0000		0.0001	0.0008
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T6 Utility Class 7-Dsl	T6 Utility-Dsl	16.9	303.3	0.0000	0.0001		0.0001	0.0010
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 CAIRP Class 8-Dsl	T7 CAIRP-Dsl	1,129.3	258,036.5	0.2132	0.1242		0.3374	1.73
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 NNOOS Class 8-Dsl	T7 NNOOS-Dsl	1,056.4	305,078.7	0.3134	0.1627		0.4761	1.80
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 NOOS Class 8-Dsl	T7 NOOS-Dsl	419.4	110,829.7	0.1041	0.0573		0.1613	0.7761
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Other Port Class 8-Dsl	T7 Other Port-Dsl	22.8	4,061.2	0.0021	0.0007		0.0028	0.0244
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 POAK Class 8-Dsl	T7 POAK-Dsl	91.4	10,615.0	0.0063	0.0029		0.0092	0.0682
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 POLA Class 8-Dsl	T7 POLA-Dsl	105.6	13,512.4	0.0071	0.0032		0.0104	0.0852
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Public Class 8-Dsl	T7 Public-Dsl	345.0	14,547.4	0.0102	0.0022		0.0124	0.2410
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 SWCV Class 8-Dsl	T7 SWCV-Dsl	185.6	11,298.7	0.0007	0.0014		0.0021	0.1554
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Single Concrete/Transit Mix Class 8-Dsl	T7 Single-Dsl	140.8	7,571.4	0.0096	0.0025		0.0121	0.0604
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Single Dump Class 8-Dsl	T7 Single-Dsl	345.3	27,328.1	0.0316	0.0058		0.0374	0.2188
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Single Other Class 8-Dsl	T7 Single-Dsl	668.1	48,313.5	0.0617	0.0114		0.0731	0.3974
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Tractor Class 8-Dsl	T7 Tractor-Dsl	2,377.3	178,764.1	0.2109	0.0670		0.2779	1.59
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	T7 Utility Class 8-Dsl	T7 Utility-Dsl	17.5	913.7	0.0003	0.0001		0.0004	0.0045
1	SJCOG		All Sub-Areas	2016	Annual	Areas-2016	UBUS-Dsl	UBUS - Dsl	102.5	9,035.0	0.0048			0.0048	0.0694
TOTALs									26,664.8	1,765,978.7	1.7	0.5	0.0	2.3	10.9

NOx_IDLEX	NOx_STREX	NOx_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW
0.0007	0.0000	0.0400	0.0021	0.0000		0.0021	0.0000	0.0002	0.0023	0.0020	0.0000		0.0020	0.0000	0.0001
		0.0172	0.0011			0.0011	0.0004	0.0004	0.0019	0.0010	0.0004		0.0010	0.0001	0.0001
		0.0010	0.0001			0.0001	0.0000	0.0000	0.0001	0.0001			0.0001	0.0000	0.0000
		0.0009	0.0001			0.0001	0.0001	0.0001	0.0002	0.0001			0.0001	0.0000	0.0000
0.0235		1.34	0.0249	0.0003		0.0251	0.0041	0.0269	0.0562	0.0238	0.0003		0.0240	0.0010	0.0094
0.0067		0.3160	0.0061	0.0001		0.0062	0.0012	0.0094	0.0168	0.0058	0.0001		0.0059	0.0003	0.0033
		0.0058	0.0004			0.0004	0.0004	0.0004	0.0012	0.0004			0.0004	0.0001	0.0001
		0.0375	0.0011			0.0011	0.0001	0.0003	0.0015	0.0010			0.0010	0.0000	0.0001
0.0024	0.0004	0.0210	0.0005	0.0000		0.0005	0.0000	0.0002	0.0008	0.0005	0.0000		0.0005	0.0000	0.0001
		0.1750	0.0049			0.0049			0.0049	0.0046			0.0046		
0.0162	0.0024	0.0997	0.0005	0.0000		0.0005	0.0001	0.0005	0.0012	0.0005	0.0000		0.0005	0.0000	0.0002
0.0001	0.0001	0.0023	0.0001	0.0000		0.0001	0.0000	0.0000	0.0001	0.0001	0.0000		0.0001	0.0000	0.0000
0.0001	0.0001	0.0031	0.0001	0.0000		0.0001	0.0000	0.0000	0.0002	0.0001	0.0000		0.0001	0.0000	0.0000
0.0002	0.0002	0.0082	0.0003	0.0000		0.0003	0.0000	0.0000	0.0004	0.0003	0.0000		0.0003	0.0000	0.0000
0.0006	0.0007	0.0487	0.0017	0.0000		0.0017	0.0002	0.0006	0.0025	0.0016	0.0000		0.0016	0.0000	0.0002
0.0094	0.0017	0.0692	0.0022	0.0001		0.0023	0.0001	0.0004	0.0027	0.0021	0.0001		0.0022	0.0000	0.0001
0.0068	0.0012	0.0459	0.0014	0.0001		0.0015	0.0001	0.0002	0.0018	0.0014	0.0001		0.0014	0.0000	0.0001
0.0232	0.0041	0.1914	0.0062	0.0002		0.0064	0.0003	0.0010	0.0077	0.0059	0.0002		0.0061	0.0001	0.0004
0.0098	0.0016	0.0665	0.0018	0.0001		0.0019	0.0001	0.0003	0.0023	0.0017	0.0001		0.0019	0.0000	0.0001
0.0202	0.0031	0.1379	0.0042	0.0002		0.0044	0.0002	0.0008	0.0054	0.0040	0.0002		0.0042	0.0001	0.0003
0.0321	0.0050	0.3592	0.0118	0.0003		0.0121	0.0006	0.0022	0.0148	0.0113	0.0003		0.0116	0.0001	0.0008
0.0319	0.0049	0.2793	0.0089	0.0003		0.0093	0.0004	0.0016	0.0113	0.0085	0.0003		0.0089	0.0001	0.0006
0.0340	0.0049	0.1986	0.0049	0.0004		0.0053	0.0003	0.0011	0.0067	0.0047	0.0004		0.0051	0.0001	0.0004
0.0004	0.0001	0.0034	0.0001	0.0000		0.0001	0.0000	0.0000	0.0001	0.0001	0.0000		0.0001	0.0000	0.0000
0.0188	0.0026	0.3133	0.0094	0.0002		0.0096	0.0005	0.0018	0.0119	0.0090	0.0002		0.0092	0.0001	0.0006
0.0000	0.0000	0.0013	0.0000	0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000	0.0000	0.0000
0.0000	0.0000	0.0018	0.0001	0.0000		0.0001	0.0000	0.0000	0.0001	0.0001	0.0000		0.0001	0.0000	0.0000
0.0001	0.0001	0.0047	0.0002	0.0000		0.0002	0.0000	0.0001	0.0002	0.0002	0.0000		0.0002	0.0000	0.0000
0.0003	0.0004	0.0335	0.0012	0.0000		0.0012	0.0001	0.0004	0.0017	0.0011	0.0000		0.0011	0.0000	0.0001
0.0029	0.0001	0.0117	0.0000	0.0000		0.0001	0.0000	0.0000	0.0001	0.0000	0.0000		0.0001	0.0000	0.0000
0.0032	0.0003	0.0182	0.0001	0.0000		0.0001	0.0000	0.0001	0.0002	0.0001	0.0000		0.0001	0.0000	0.0000
0.0037	0.0001	0.0459	0.0003	0.0000		0.0003	0.0001	0.0002	0.0006	0.0003	0.0000		0.0003	0.0000	0.0001
0.0085	0.0003	0.0780	0.0005	0.0000		0.0006	0.0001	0.0003	0.0010	0.0006	0.0000		0.0005	0.0000	0.0001
0.0007	0.0005	0.0041	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000	0.0000	0.0000
0.0002	0.0001	0.0011	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000
0.0003	0.0002	0.0015	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000
0.1757	0.0304	1.94	0.0379	0.0007		0.0387	0.0102	0.0234	0.0723	0.0363	0.0007		0.0370	0.0026	0.0082
0.1740	0.0354	2.01	0.0581	0.0012		0.0593	0.0121	0.0273	0.0986	0.0556	0.0011		0.0567	0.0030	0.0095
0.0804	0.0113	0.8678	0.0181	0.0004		0.0184	0.0044	0.0101	0.0329	0.0173	0.0004		0.0176	0.0011	0.0035
0.0018	0.0003	0.0266	0.0002	0.0000		0.0002	0.0002	0.0004	0.0008	0.0002	0.0000		0.0002	0.0000	0.0002
0.0075	0.0013	0.0770	0.0006	0.0000		0.0006	0.0004	0.0012	0.0022	0.0005	0.0000		0.0005	0.0001	0.0004
0.0084	0.0015	0.0951	0.0005	0.0000		0.0005	0.0005	0.0015	0.0026	0.0005	0.0000		0.0005	0.0001	0.0005
0.0170	0.0016	0.2596	0.0016	0.0001		0.0017	0.0006	0.0020	0.0043	0.0016	0.0001		0.0016	0.0001	0.0007
0.0104	0.0009	0.1667	0.0002	0.0000		0.0002	0.0004	0.0026	0.0033	0.0002	0.0000		0.0002	0.0001	0.0009
0.0044	0.0015	0.0663	0.0017	0.0000		0.0017	0.0003	0.0008	0.0028	0.0016	0.0000		0.0017	0.0001	0.0003
0.0108	0.0038	0.2334	0.0056	0.0001		0.0057	0.0011	0.0028	0.0096	0.0053	0.0001		0.0054	0.0003	0.0010
0.0208	0.0071	0.4253	0.0109	0.0002		0.0111	0.0019	0.0050	0.0180	0.0104	0.0002		0.0106	0.0005	0.0017
0.1165	0.0500	1.76	0.0346	0.0004		0.0350	0.0071	0.0180	0.0601	0.0331	0.0004		0.0335	0.0018	0.0063
0.0003	0.0006	0.0055	0.0000	0.0000		0.0000	0.0000	0.0000	0.0002	0.0000	0.0000		0.0000	0.0000	0.0000
		0.0694	0.0002			0.0002	0.0003	0.0011	0.0015	0.0002			0.0002	0.0001	0.0004
0.9	0.2	12.0	0.3	0.0	0.0	0.3	0.0	0.1	0.5	0.3	0.0	0.0	0.3	0.0	0.1

PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX
0.0021	0.0000	0.0000		0.0000
0.0013	0.0001			0.0001
0.0001	0.0000			0.0000
0.0002	0.0000			0.0000
0.0345	0.0021	0.0000		0.0021
0.0095	0.0008	0.0000		0.0008
0.0007	0.0002			0.0002
0.0012	0.0001			0.0001
0.0006	0.0000	0.0000		0.0000
0.0046	0.0004			0.0004
0.0007	0.0001	0.0000		0.0001
0.0001	0.0000	0.0000		0.0000
0.0001	0.0000	0.0000		0.0000
0.0003	0.0000	0.0000		0.0000
0.0019	0.0001	0.0000		0.0001
0.0023	0.0001	0.0000		0.0001
0.0015	0.0001	0.0000		0.0001
0.0066	0.0003	0.0000		0.0003
0.0020	0.0001	0.0000		0.0001
0.0045	0.0002	0.0000		0.0002
0.0125	0.0005	0.0000		0.0006
0.0095	0.0004	0.0000		0.0004
0.0055	0.0003	0.0000		0.0003
0.0001	0.0000	0.0000		0.0000
0.0099	0.0004	0.0000		0.0005
0.0001	0.0000	0.0000		0.0000
0.0001	0.0000	0.0000		0.0000
0.0002	0.0000	0.0000		0.0000
0.0013	0.0001	0.0000		0.0001
0.0001	0.0000	0.0000		0.0000
0.0001	0.0000	0.0000		0.0000
0.0004	0.0001	0.0000		0.0001
0.0007	0.0001	0.0000		0.0001
0.0000	0.0000	0.0000		0.0000
0.0000	0.0000	0.0000		0.0000
0.0000	0.0000	0.0000		0.0000
0.0477	0.0043	0.0003		0.0046
0.0693	0.0050	0.0003		0.0054
0.0223	0.0018	0.0001		0.0020
0.0003	0.0001	0.0000		0.0001
0.0010	0.0002	0.0000		0.0002
0.0012	0.0002	0.0000		0.0003
0.0025	0.0003	0.0000		0.0003
0.0012	0.0005	0.0000		0.0005
0.0020	0.0001	0.0000		0.0001
0.0067	0.0005	0.0000		0.0005
0.0128	0.0009	0.0000		0.0009
0.0415	0.0030	0.0002		0.0032
0.0001	0.0000	0.0000		0.0000
0.0006	0.0001			0.0001
0.3	0.0	0.0	0.0	0.0

Veh_Tech	EMFAC2011 Category	Population	Total_VMT	cVMT	eVMT	Trips	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS
All Other Buses-Dsl	All Other Buses - Dsl	78.4	3,492.6	3,492.6	0	698.1	0.0002	0.0000		0.0002			
LDA-Dsl	LDA - Dsl	159.6	5,676.6	5,676.6	0	710.0	0.0000			0.0000			
LDT1-Dsl	LDT1 - Dsl	0.1803	6.83	6.83	0	0.8311	0.0000			0.0000			
LDT2-Dsl	LDT2 - Dsl	511.0	19,450.0	19,450.0	0	2,356.8	0.0004			0.0004			
LHD1-Dsl	LHD1 - Dsl	3,352.7	105,945.1	105,945.1	0	42,172.8	0.0124	0.0005		0.0129			
LHD2-Dsl	LHD2 - Dsl	1,668.5	50,298.3	50,298.3	0	20,987.5	0.0074	0.0002		0.0077			
MDV-Dsl	MDV - Dsl	902.5	30,866.0	30,866.0	0	4,058.3	0.0003			0.0003			
MH-Dsl	MH - Dsl	400.3	3,567.4	3,567.4	0	40.0	0.0004			0.0004			
Motor Coach-Dsl	Motor Coach - Dsl	19.2	2,437.4	2,437.4	0	441.4	0.0000	0.0001		0.0001			
PTO-Dsl	PTO-Dsl	0	12,920.8	12,920.8	0		0.0002			0.0002			
SBUS-Dsl	SBUS - Dsl	214.3	4,514.4	4,514.4	0	3,103.7	0.0000	0.0000		0.0001			
T6 CAIRP Class 4-Dsl	T6 CAIRP small-Dsl	5.55	399.0	399.0	0	127.5	0.0000	0.0000		0.0000			
T6 CAIRP Class 5-Dsl	T6 CAIRP small-Dsl	6.82	548.1	548.1	0	156.7	0.0000	0.0000		0.0000			
T6 CAIRP Class 6-Dsl	T6 CAIRP small-Dsl	31.0	1,426.8	1,426.8	0	711.4	0.0000	0.0000		0.0000			
T6 CAIRP Class 7-Dsl	T6 CAIRP heavy-Dsl	82.2	16,629.3	16,629.3	0	1,888.9	0.0001	0.0000		0.0001			
T6 Instate Delivery Class 4-Dsl	T6 instate small-Dsl	167.5	5,523.5	5,523.5	0	2,390.2	0.0000	0.0000		0.0001			
T6 Instate Delivery Class 5-Dsl	T6 instate small-Dsl	109.1	3,596.5	3,596.5	0	1,556.4	0.0000	0.0000		0.0000			
T6 Instate Delivery Class 6-Dsl	T6 instate small-Dsl	473.3	15,604.8	15,604.8	0	6,753.6	0.0001	0.0001		0.0002			
T6 Instate Delivery Class 7-Dsl	T6 instate heavy-Dsl	117.7	5,963.4	5,963.4	0	1,679.3	0.0001	0.0000		0.0001			
T6 Instate Other Class 4-Dsl	T6 instate small-Dsl	307.9	11,932.8	11,932.8	0	3,559.1	0.0001	0.0001		0.0002			
T6 Instate Other Class 5-Dsl	T6 instate small-Dsl	869.1	33,691.0	33,691.0	0	10,046.9	0.0002	0.0002		0.0004			
T6 Instate Other Class 6-Dsl	T6 instate small-Dsl	646.6	25,045.8	25,045.8	0	7,475.0	0.0002	0.0001		0.0003			
T6 Instate Other Class 7-Dsl	T6 instate heavy-Dsl	521.6	20,691.7	20,691.7	0	6,029.6	0.0002	0.0001		0.0003			
T6 Instate Tractor Class 6-Dsl	T6 instate small-Dsl	7.26	325.5	325.5	0	83.9	0.0000	0.0000		0.0000			
T6 Instate Tractor Class 7-Dsl	T6 instate heavy-Dsl	856.7	49,559.4	49,559.4	0	9,903.0	0.0004	0.0002		0.0006			
T6 OOS Class 4-Dsl	T6 OOS small-Dsl	7.64	558.7	558.7	0	175.6	0.0000	0.0000		0.0000			
T6 OOS Class 5-Dsl	T6 OOS small-Dsl	9.40	766.4	766.4	0	215.9	0.0000	0.0000		0.0000			
T6 OOS Class 6-Dsl	T6 OOS small-Dsl	42.6	2,002.6	2,002.6	0	978.8	0.0000	0.0000		0.0000			
T6 OOS Class 7-Dsl	T6 OOS heavy-Dsl	52.4	14,561.5	14,561.5	0	1,204.9	0.0001	0.0000		0.0001			
T6 Public Class 4-Dsl	T6 Public-Dsl	15.7	540.6	540.6	0	80.8	0.0000	0.0000		0.0000			
T6 Public Class 5-Dsl	T6 Public-Dsl	44.1	1,512.8	1,512.8	0	226.3	0.0000	0.0000		0.0000			
T6 Public Class 6-Dsl	T6 Public-Dsl	68.0	2,329.0	2,329.0	0	348.9	0.0000	0.0000		0.0001			
T6 Public Class 7-Dsl	T6 Public-Dsl	95.4	3,993.0	3,993.0	0	489.6	0.0000	0.0000		0.0001			
T6 Utility Class 5-Dsl	T6 Utility-Dsl	14.8	590.5	590.5	0	189.8	0.0000	0.0000		0.0000			
T6 Utility Class 6-Dsl	T6 Utility-Dsl	2.80	111.6	111.6	0	35.9	0.0000	0.0000		0.0000			
T6 Utility Class 7-Dsl	T6 Utility-Dsl	3.11	153.2	153.2	0	39.8	0.0000	0.0000		0.0000			
T7 CAIRP Class 8-Dsl	T7 CAIRP-Dsl	1,764.5	367,975.5	367,975.5	0	40,548.2	0.0053	0.0231		0.0284			
T7 NNOOS Class 8-Dsl	T7 NNOOS-Dsl	1,955.8	560,653.6	560,653.6	0	44,944.2	0.0078	0.0318		0.0396			
T7 NOOS Class 8-Dsl	T7 NOOS-Dsl	841.7	203,675.5	203,675.5	0	19,342.3	0.0029	0.0137		0.0166			
T7 Other Port Class 8-Dsl	T7 Other Port-Dsl	24.6	5,908.7	5,908.7	0	401.9	0.0001	0.0001		0.0002			
T7 POAK Class 8-Dsl	T7 POAK-Dsl	126.1	14,623.3	14,623.3	0	2,063.1	0.0002	0.0005		0.0007			
T7 POLA Class 8-Dsl	T7 POLA-Dsl	115.0	21,336.1	21,336.1	0	1,882.1	0.0003	0.0005		0.0008			
T7 Public Class 8-Dsl	T7 Public-Dsl	243.5	9,806.3	9,806.3	0	1,249.2	0.0003	0.0004		0.0007			
T7 SWCV Class 8-Dsl	T7 SWCV-Dsl	44.7	2,899.9	2,899.9	0	205.6	0.0001	0.0001		0.0002			
T7 Single Concrete/Transit Mix Class 8-Dsl	T7 Single-Dsl	53.1	3,502.8	3,502.8	0	499.8	0.0000	0.0001		0.0002			
T7 Single Dump Class 8-Dsl	T7 Single-Dsl	323.3	15,690.9	15,690.9	0	3,045.2	0.0002	0.0008		0.0010			
T7 Single Other Class 8-Dsl	T7 Single-Dsl	1,240.1	43,607.9	43,607.9	0	11,681.6	0.0005	0.0029		0.0034			
T7 Tractor Class 8-Dsl	T7 Tractor-Dsl	4,194.1	272,362.1	272,362.1	0	60,941.0	0.0035	0.0182		0.0217			
T7 Utility Class 8-Dsl	T7 Utility-Dsl	15.4	634.9	634.9	0	197.1	0.0000	0.0000		0.0000			
UBUS-Dsl	UBUS - Dsl	0.2256	8.14	8.14	0	0.9025	0.0000			0.0000			
TOTALs		22,807.2	1,979,918.7	1,979,918.7	0.0	317,919.5	0.0	0.1	0.0	0.1	0.0	0.0	0.0

TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN	ROG_HTSK	ROG_RUNLS	ROG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX
0.0002	0.0002	0.0000		0.0002				0.0002	0.0007	0.0002		0.0008	0.0044	0.0002	0.0007
0.0000	0.0000			0.0000				0.0000	0.0012			0.0012	0.0012		
0.0000	0.0000			0.0000				0.0000	0.0000			0.0000	0.0000		
0.0004	0.0004			0.0004				0.0004	0.0041			0.0041	0.0007		
0.0129	0.0109	0.0004		0.0113				0.0113	0.0283	0.0034		0.0317	0.0389	0.0041	
0.0077	0.0065	0.0002		0.0067				0.0067	0.0172	0.0017		0.0189	0.0270	0.0022	
0.0003	0.0002			0.0002				0.0002	0.0071			0.0071	0.0005		
0.0004	0.0003			0.0003				0.0003	0.0010			0.0010	0.0102		
0.0001	0.0000	0.0001		0.0001				0.0001	0.0001	0.0012		0.0013	0.0025	0.0004	0.0005
0.0002	0.0002			0.0002				0.0002	0.0025			0.0025	0.0354		
0.0001	0.0000	0.0000		0.0001				0.0001	0.0003	0.0017		0.0019	0.0018	0.0014	0.0020
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0001	0.0000	0.0000
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0001	0.0000	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001		0.0001	0.0003	0.0001	0.0003
0.0001	0.0001	0.0000		0.0001				0.0001	0.0005	0.0002		0.0007	0.0035	0.0002	0.0008
0.0001	0.0000	0.0000		0.0001				0.0001	0.0003	0.0013		0.0016	0.0022	0.0011	0.0027
0.0000	0.0000	0.0000		0.0000				0.0000	0.0002	0.0008		0.0011	0.0014	0.0007	0.0018
0.0002	0.0001	0.0001		0.0002				0.0002	0.0009	0.0037		0.0046	0.0061	0.0030	0.0077
0.0001	0.0001	0.0000		0.0001				0.0001	0.0004	0.0009		0.0014	0.0037	0.0010	0.0024
0.0002	0.0001	0.0001		0.0001				0.0001	0.0006	0.0026		0.0031	0.0035	0.0021	0.0046
0.0004	0.0002	0.0002		0.0004				0.0004	0.0016	0.0073		0.0088	0.0099	0.0059	0.0130
0.0003	0.0002	0.0001		0.0003				0.0003	0.0012	0.0054		0.0066	0.0074	0.0044	0.0097
0.0003	0.0002	0.0001		0.0003				0.0003	0.0012	0.0043		0.0055	0.0103	0.0046	0.0098
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001		0.0001	0.0001	0.0000	0.0001
0.0006	0.0004	0.0002		0.0005				0.0005	0.0027	0.0071		0.0098	0.0207	0.0072	0.0152
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0001	0.0000	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0002	0.0000	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0001		0.0002	0.0005	0.0001	0.0006
0.0001	0.0001	0.0000		0.0001				0.0001	0.0005	0.0001		0.0006	0.0037	0.0002	0.0008
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0002		0.0002	0.0004	0.0002	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0005		0.0006	0.0009	0.0006	0.0003
0.0001	0.0000	0.0000		0.0000				0.0000	0.0001	0.0008		0.0009	0.0011	0.0008	0.0005
0.0001	0.0000	0.0000		0.0001				0.0001	0.0002	0.0011		0.0014	0.0017	0.0012	0.0008
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001		0.0001	0.0001	0.0001	0.0002
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
0.0284	0.0046	0.0203		0.0249				0.0249	0.0157	0.2999		0.3155	0.4877	0.1555	0.0703
0.0396	0.0069	0.0279		0.0348				0.0348	0.0232	0.4125		0.4357	0.8213	0.3299	0.1177
0.0166	0.0026	0.0120		0.0146				0.0146	0.0087	0.1775		0.1862	0.3069	0.1420	0.0507
0.0002	0.0001	0.0001		0.0002				0.0002	0.0004	0.0014		0.0018	0.0081	0.0008	0.0008
0.0007	0.0002	0.0005		0.0006				0.0006	0.0010	0.0070		0.0081	0.0207	0.0040	0.0041
0.0008	0.0003	0.0004		0.0007				0.0007	0.0016	0.0064		0.0080	0.0327	0.0039	0.0040
0.0007	0.0003	0.0003		0.0006				0.0006	0.0016	0.0045		0.0061	0.0193	0.0034	0.0072
0.0002	0.0001	0.0001		0.0001				0.0001	0.0002	0.0009		0.0011	0.0062	0.0009	0.0010
0.0002	0.0000	0.0001		0.0001				0.0001	0.0002	0.0016		0.0018	0.0031	0.0008	0.0013
0.0010	0.0002	0.0007		0.0008				0.0008	0.0009	0.0098		0.0107	0.0187	0.0053	0.0088
0.0034	0.0005	0.0025		0.0030				0.0030	0.0023	0.0376		0.0399	0.0471	0.0198	0.0331
0.0217	0.0031	0.0160		0.0190				0.0190	0.0144	0.2361		0.2504	0.3537	0.1419	0.2253
0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0002		0.0002	0.0007	0.0001	0.0009
0.0000	0.0000			0.0000				0.0000	0.0000			0.0000	0.0000		
0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	1.2	0.0	1.4	2.3	0.8	0.6

NOx_TOTEX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX
0.0052	3.97	0.0465		4.01	0.0000	0.0000		0.0000	0.0000	0.0002	0.0003	0.0000	0.0000		0.0000
0.0001	1.13			1.13	0.0000			0.0000	0.0001	0.0000	0.0001	0.0000	0.0000		0.0000
0.0000	0.0025			0.0025	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0007	5.37			5.37	0.0001			0.0001	0.0002	0.0002	0.0005	0.0001			0.0001
0.0431	69.9	0.4324		70.3	0.0024	0.0001		0.0025	0.0014	0.0091	0.0130	0.0023	0.0001		0.0024
0.0292	38.9	0.3521		39.2	0.0015	0.0001		0.0015	0.0007	0.0050	0.0072	0.0014	0.0000		0.0014
0.0005	11.1			11.1	0.0000			0.0000	0.0003	0.0004	0.0007	0.0000			0.0000
0.0102	4.25			4.25	0.0001			0.0001	0.0001	0.0002	0.0004	0.0001			0.0001
0.0034	4.08	0.1751		4.25	0.0001	0.0000		0.0001	0.0000	0.0002	0.0003	0.0001	0.0000		0.0001
0.0354	24.5			24.5	0.0001			0.0001			0.0001	0.0001			0.0001
0.0053	5.10	0.4343		5.54	0.0000	0.0000		0.0000	0.0001	0.0002	0.0003	0.0000	0.0000		0.0000
0.0001	0.4427	0.0031		0.4458	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0002	0.6083	0.0038		0.6122	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0006	1.58	0.0173		1.60	0.0000	0.0173		0.0000	0.0000	0.0001	0.0000	0.0000	0.0000		0.0000
0.0045	16.3	0.0451		16.3	0.0001	0.0000		0.0001	0.0002	0.0008	0.0011	0.0001	0.0000		0.0001
0.0059	6.31	0.3214		6.63	0.0000	0.0000		0.0000	0.0001	0.0003	0.0004	0.0000	0.0000		0.0000
0.0039	4.11	0.2093		4.32	0.0000	0.0000		0.0000	0.0000	0.0002	0.0002	0.0000	0.0000		0.0000
0.0168	17.8	0.9082		18.7	0.0000	0.9082		0.0000	0.0000	0.0002	0.0008	0.0011	0.0000		0.0000
0.0070	6.99	0.2359		7.23	0.0000	0.0000		0.0000	0.0001	0.0003	0.0004	0.0000	0.0000		0.0000
0.0101	13.2	0.6354		13.8	0.0000	0.0000		0.0000	0.0002	0.0006	0.0008	0.0000	0.0000		0.0000
0.0287	37.3	1.79		39.1	0.0001	0.0000		0.0001	0.0001	0.0004	0.0017	0.0022	0.0001		0.0001
0.0215	27.7	1.33		29.1	0.0001	0.0000		0.0001	0.0001	0.0003	0.0012	0.0017	0.0001		0.0001
0.0247	23.1	1.13		24.2	0.0001	0.0000		0.0001	0.0003	0.0010	0.0014	0.0001	0.0000		0.0001
0.0003	0.3603	0.0150		0.3752	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0430	50.5	1.81		52.3	0.0002	0.0000		0.0002	0.0007	0.0025	0.0033	0.0002	0.0000		0.0002
0.0003	0.5819	0.0040		0.5860	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0004	0.7988	0.0050		0.8038	0.0000	0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000
0.0013	2.08	0.0224		2.11	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0047	13.6	0.0275		13.7	0.0001	0.0000		0.0001	0.0001	0.0002	0.0007	0.0010	0.0001		0.0001
0.0007	0.6427	0.0479		0.6905	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0018	1.80	0.1354		1.94	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0025	2.77	0.2068		2.97	0.0000	0.0000		0.0000	0.0000	0.0001	0.0002	0.0000	0.0000		0.0000
0.0037	4.69	0.2842		4.97	0.0000	0.2842		0.0000	0.0000	0.0001	0.0002	0.0003	0.0000		0.0000
0.0004	0.6565	0.0228		0.6793	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0001	0.1241	0.0043		0.1284	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0001	0.1704	0.0048		0.1752	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.7135	514.6	38.8		553.4	0.0120	0.0001		0.0121	0.0146	0.0332	0.0599	0.0115	0.0001		0.0116
1.27	750.6	51.1		801.7	0.0181	0.0001		0.0182	0.0222	0.0506	0.0910	0.0173	0.0001		0.0174
0.4995	272.6	22.0		294.5	0.0069	0.0001		0.0070	0.0081	0.0184	0.0335	0.0066	0.0000		0.0067
0.0096	8.86	0.1754		9.04	0.0001	0.0000		0.0001	0.0002	0.0006	0.0010	0.0001	0.0000		0.0001
0.0288	21.9	0.9005		22.8	0.0003	0.0000		0.0003	0.0003	0.0006	0.0015	0.0024	0.0003		0.0003
0.0406	32.3	0.8327		33.1	0.0004	0.0000		0.0004	0.0008	0.0022	0.0035	0.0004	0.0000		0.0004
0.0299	17.2	0.6836		17.9	0.0001	0.0000		0.0001	0.0004	0.0012	0.0017	0.0001	0.0000		0.0001
0.0082	10.8	0.1508		10.9	0.0001	0.0000		0.0001	0.0001	0.0007	0.0008	0.0001	0.0000		0.0001
0.0052	5.54	0.2128		5.76	0.0001	0.0000		0.0001	0.0001	0.0003	0.0005	0.0001	0.0000		0.0001
0.0327	25.5	1.38		26.9	0.0003	0.0000		0.0003	0.0006	0.0015	0.0024	0.0003	0.0000		0.0003
0.1000	70.0	5.12		75.1	0.0008	0.0000		0.0008	0.0017	0.0042	0.0067	0.0007	0.0000		0.0008
0.7210	379.7	30.7		410.4	0.0065	0.0001		0.0066	0.0108	0.0258	0.0432	0.0062	0.0001		0.0063
0.0017	1.07	0.0225		1.09	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0000	0.0059			0.0059	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000			0.0000
3.8	2,513.4	162.7	0.0	2,676.1	0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.0	0.0	0.0

PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL	Fuel_NG
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3612	
0.0000	0.0000	0.0000	0.0000			0.0000		0.1021	
0.0000	0.0000	0.0000	0.0000			0.0000		0.0002	
0.0000	0.0001	0.0002	0.0001			0.0001		0.4836	
0.0004	0.0032	0.0059	0.0007	0.0000		0.0007		6.33	
0.0002	0.0018	0.0034	0.0004	0.0000		0.0004		3.53	
0.0001	0.0001	0.0002	0.0001			0.0001		1.00	
0.0000	0.0001	0.0002	0.0000			0.0000		0.3826	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3827	
		0.0001	0.0002			0.0001		2.21	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0001		0.4982	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0401	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0551	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1439	
0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.47	
0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.5968	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3890	
0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.69	
0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.6505	
0.0000	0.0002	0.0003	0.0001	0.0000		0.0001		1.25	
0.0001	0.0006	0.0008	0.0004	0.0000		0.0004		3.52	
0.0001	0.0004	0.0006	0.0003	0.0000		0.0003		2.61	
0.0001	0.0004	0.0005	0.0002	0.0000		0.0002		2.18	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0338	
0.0002	0.0009	0.0012	0.0005	0.0000		0.0005		4.71	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0527	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0723	
0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.1895	
0.0000	0.0002	0.0004	0.0001	0.0000		0.0001		1.23	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0621	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1746	
0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.2676	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.4473	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0611	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0116	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0158	
0.0037	0.0116	0.0268	0.0049	0.0004	0.0268	0.0053		49.8	
0.0056	0.0177	0.0407	0.0072	0.0005		0.0076		72.2	
0.0020	0.0064	0.0152	0.0026	0.0002		0.0028		26.5	
0.0001	0.0002	0.0004	0.0001	0.0000		0.0001		0.8136	
0.0001	0.0005	0.0009	0.0002	0.0000		0.0002		2.05	
0.0002	0.0008	0.0014	0.0003	0.0000		0.0003		2.98	
0.0001	0.0004	0.0006	0.0002	0.0000		0.0002		1.61	
0.0000	0.0002	0.0003	0.0001	0.0000		0.0001		0.9845	
0.0000	0.0001	0.0002	0.0001	0.0000		0.0001		0.5182	
0.0002	0.0005	0.0010	0.0002	0.0000		0.0003		2.42	
0.0004	0.0015	0.0027	0.0007	0.0000		0.0007		6.76	
0.0027	0.0090	0.0180	0.0036	0.0003		0.0039		36.9	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0983	
0.0000	0.0000	0.0000	0.0000			0.0000		0.0005	
0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	240.8	0.0

Group	Area	GAI	Sub-Area	Cal. Year	Season	Title	Veh_Tech	EMFAC2011 Category	Population	Total_VMT	cVMT	eVMT	Trips	TOG_RUNEX	TOG_IDLEX
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	All Other Buses-Dsl	All Other Buses - Dsl	77.5	3,451.8	3,451.8	0	690.0	0.0002	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	LDA-Dsl	LDA - Dsl	157.8	5,610.2	5,610.2	0	701.7	0.0000	
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	LDT1-Dsl	LDT1 - Dsl	0.1782	6.75	6.75	0	0.8214	0.0000	
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	LDT2-Dsl	LDT2 - Dsl	505.1	19,222.6	19,222.6	0	2,329.2	0.0004	
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	LHD1-Dsl	LHD1 - Dsl	3,313.5	104,706.5	104,706.5	0	41,679.7	0.0123	0.0005
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	LHD2-Dsl	LHD2 - Dsl	1,649.0	49,710.3	49,710.3	0	20,742.1	0.0073	0.0002
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	MDV-Dsl	MDV - Dsl	892.0	30,505.1	30,505.1	0	4,010.9	0.0003	
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	MH-Dsl	MH - Dsl	395.6	3,525.7	3,525.7	0	39.6	0.0004	
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	Motor Coach-Dsl	Motor Coach - Dsl	19.0	2,408.9	2,408.9	0	436.2	0.0000	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	PTO-Dsl	PTO-Dsl	0	12,769.7	12,769.7	0		0.0002	
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	SBUS-Dsl	SBUS - Dsl	211.8	4,461.6	4,461.6	0	3,067.4	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 CAIRP Class 4-Dsl	T6 CAIRP small-Dsl	5.48	394.3	394.3	0	126.0	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 CAIRP Class 5-Dsl	T6 CAIRP small-Dsl	6.74	541.7	541.7	0	154.9	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 CAIRP Class 6-Dsl	T6 CAIRP small-Dsl	30.6	1,410.2	1,410.2	0	703.1	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 CAIRP Class 7-Dsl	T6 CAIRP heavy-Dsl	81.2	16,434.9	16,434.9	0	1,866.9	0.0001	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Delivery Class 4-Dsl	T6 instate small-Dsl	165.5	5,458.9	5,458.9	0	2,362.3	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Delivery Class 5-Dsl	T6 instate small-Dsl	107.8	3,554.5	3,554.5	0	1,538.3	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Delivery Class 6-Dsl	T6 instate small-Dsl	467.7	15,422.3	15,422.3	0	6,674.6	0.0001	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Delivery Class 7-Dsl	T6 instate heavy-Dsl	116.3	5,893.7	5,893.7	0	1,659.6	0.0001	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Other Class 4-Dsl	T6 instate small-Dsl	304.3	11,793.3	11,793.3	0	3,517.5	0.0001	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Other Class 5-Dsl	T6 instate small-Dsl	859.0	33,297.2	33,297.2	0	9,929.5	0.0002	0.0002
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Other Class 6-Dsl	T6 instate small-Dsl	639.1	24,753.0	24,753.0	0	7,387.6	0.0002	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Other Class 7-Dsl	T6 instate heavy-Dsl	515.5	20,449.8	20,449.8	0	5,959.2	0.0002	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Tractor Class 6-Dsl	T6 instate small-Dsl	7.17	321.7	321.7	0	82.9	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Instate Tractor Class 7-Dsl	T6 instate heavy-Dsl	846.6	48,980.0	48,980.0	0	9,787.3	0.0004	0.0002
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 OOS Class 4-Dsl	T6 OOS small-Dsl	7.55	552.1	552.1	0	173.6	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 OOS Class 5-Dsl	T6 OOS small-Dsl	9.29	757.4	757.4	0	213.4	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 OOS Class 6-Dsl	T6 OOS small-Dsl	42.1	1,979.2	1,979.2	0	967.4	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 OOS Class 7-Dsl	T6 OOS heavy-Dsl	51.8	14,391.3	14,391.3	0	1,190.8	0.0001	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Public Class 4-Dsl	T6 Public-Dsl	15.6	534.3	534.3	0	79.8	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Public Class 5-Dsl	T6 Public-Dsl	43.6	1,495.1	1,495.1	0	223.6	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Public Class 6-Dsl	T6 Public-Dsl	67.2	2,301.8	2,301.8	0	344.8	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Public Class 7-Dsl	T6 Public-Dsl	94.3	3,946.3	3,946.3	0	483.8	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Utility Class 5-Dsl	T6 Utility-Dsl	14.7	583.6	583.6	0	187.5	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Utility Class 6-Dsl	T6 Utility-Dsl	2.77	110.3	110.3	0	35.5	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T6 Utility Class 7-Dsl	T6 Utility-Dsl	3.07	151.4	151.4	0	39.4	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 CAIRP Class 8-Dsl	T7 CAIRP-Dsl	1,743.9	363,673.4	363,673.4	0	40,074.1	0.0052	0.0228
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 NNOOS Class 8-Dsl	T7 NNOOS-Dsl	1,932.9	554,098.9	554,098.9	0	44,418.8	0.0077	0.0314
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 NOOS Class 8-Dsl	T7 NOOS-Dsl	831.9	201,294.3	201,294.3	0	19,116.2	0.0029	0.0135
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Other Port Class 8-Dsl	T7 Other Port-Dsl	24.3	5,839.6	5,839.6	0	397.2	0.0001	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 POAK Class 8-Dsl	T7 POAK-Dsl	124.6	14,452.3	14,452.3	0	2,039.0	0.0002	0.0005
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 POLA Class 8-Dsl	T7 POLA-Dsl	113.7	21,086.7	21,086.7	0	1,860.1	0.0003	0.0005
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Public Class 8-Dsl	T7 Public-Dsl	240.7	9,691.7	9,691.7	0	1,234.6	0.0003	0.0004
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 SWCV Class 8-Dsl	T7 SWCV-Dsl	44.2	2,866.0	2,866.0	0	203.2	0.0001	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Single Concrete/Transit Mix Class 8-Dsl	T7 Single-Dsl	52.4	3,461.9	3,461.9	0	493.9	0.0000	0.0001
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Single Dump Class 8-Dsl	T7 Single-Dsl	319.5	15,507.4	15,507.4	0	3,009.6	0.0002	0.0007
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Single Other Class 8-Dsl	T7 Single-Dsl	1,225.6	43,098.0	43,098.0	0	11,545.0	0.0005	0.0029
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Tractor Class 8-Dsl	T7 Tractor-Dsl	4,145.1	269,177.9	269,177.9	0	60,228.5	0.0034	0.0180
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	T7 Utility Class 8-Dsl	T7 Utility-Dsl	15.2	627.5	627.5	0	194.8	0.0000	0.0000
1	SJCOG		All Sub-Areas	2046	Annual	Areas-2046	UBUS-Dsl	UBUS - Dsl	0.2230	8.05	8.05	0	0.8919	0.0000	
TOTALs									22,540.6	1,956,771.1	1,956,771.1	0.0	314,202.7	0.0	0.1

TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS	TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN	ROG_HTSK	ROG_RUNLS	ROG_TOTAL	CO_RUNEX	CO_IDLEX
	0.0002				0.0002	0.0002	0.0000		0.0002				0.0002	0.0007	0.0002
	0.0000				0.0000	0.0000			0.0000				0.0000	0.0012	
	0.0000				0.0000	0.0000			0.0000				0.0000	0.0000	
	0.0004				0.0004	0.0004			0.0004				0.0004	0.0040	
	0.0127				0.0127	0.0108	0.0004		0.0112				0.0112	0.0280	0.0033
	0.0076				0.0076	0.0064	0.0002		0.0066				0.0066	0.0170	0.0017
	0.0003				0.0003	0.0002			0.0002				0.0002	0.0070	
	0.0004				0.0004	0.0003			0.0003				0.0003	0.0010	
	0.0001				0.0001	0.0000	0.0001		0.0001				0.0001	0.0001	0.0012
	0.0002				0.0002	0.0002			0.0002				0.0002	0.0025	
	0.0001				0.0001	0.0000	0.0000		0.0001				0.0001	0.0003	0.0016
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001
	0.0001				0.0001	0.0001	0.0000		0.0001				0.0001	0.0005	0.0002
	0.0001				0.0001	0.0000	0.0000		0.0001				0.0001	0.0003	0.0013
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0002	0.0008
	0.0002				0.0002	0.0001	0.0001		0.0002				0.0002	0.0009	0.0036
	0.0001				0.0001	0.0001	0.0000		0.0001				0.0001	0.0004	0.0009
	0.0001				0.0001	0.0001	0.0001		0.0001				0.0001	0.0005	0.0025
	0.0004				0.0004	0.0002	0.0002		0.0004				0.0004	0.0015	0.0072
	0.0003				0.0003	0.0001	0.0001		0.0003				0.0003	0.0011	0.0053
	0.0003				0.0003	0.0002	0.0001		0.0003				0.0003	0.0012	0.0043
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001
	0.0006				0.0006	0.0004	0.0002		0.0005				0.0005	0.0026	0.0071
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0001
	0.0001				0.0001	0.0001	0.0000		0.0001				0.0001	0.0005	0.0001
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0002
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0005
	0.0001				0.0001	0.0000	0.0000		0.0000				0.0000	0.0001	0.0008
	0.0001				0.0001	0.0000	0.0000		0.0001				0.0001	0.0002	0.0011
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000
	0.0280				0.0280	0.0046	0.0201		0.0246				0.0246	0.0155	0.2964
	0.0391				0.0391	0.0068	0.0276		0.0344				0.0344	0.0229	0.4077
	0.0164				0.0164	0.0025	0.0119		0.0144				0.0144	0.0086	0.1755
	0.0002				0.0002	0.0001	0.0001		0.0002				0.0002	0.0004	0.0014
	0.0007				0.0007	0.0002	0.0005		0.0006				0.0006	0.0010	0.0069
	0.0008				0.0008	0.0002	0.0004		0.0007				0.0007	0.0016	0.0063
	0.0007				0.0007	0.0003	0.0003		0.0006				0.0006	0.0015	0.0045
	0.0002				0.0002	0.0001	0.0001		0.0001				0.0001	0.0002	0.0008
	0.0002				0.0002	0.0000	0.0001		0.0001				0.0001	0.0002	0.0016
	0.0009				0.0009	0.0002	0.0007		0.0008				0.0008	0.0009	0.0097
	0.0034				0.0034	0.0005	0.0025		0.0030				0.0030	0.0023	0.0372
	0.0214				0.0214	0.0030	0.0158		0.0188				0.0188	0.0142	0.2333
	0.0000				0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0002
	0.0000				0.0000	0.0000			0.0000				0.0000	0.0000	
0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	1.2

CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW
	0.0008	0.0043	0.0002	0.0007	0.0052	3.92	0.0460		3.97	0.0000	0.0000		0.0000	0.0000	0.0002
	0.0012	0.0001			0.0001	1.12			1.12	0.0000			0.0000	0.0000	0.0001
	0.0000	0.0000			0.0000	0.0025			0.0025	0.0000			0.0000	0.0000	0.0000
	0.0040	0.0007			0.0007	5.31			5.31	0.0001			0.0001	0.0002	0.0002
	0.0313	0.0385	0.0041		0.0426	69.1	0.4273		69.5	0.0024	0.0001		0.0025	0.0014	0.0090
	0.0187	0.0267	0.0022		0.0289	38.4	0.3480		38.8	0.0014	0.0000		0.0015	0.0007	0.0050
	0.0070	0.0004			0.0004	11.0			11.0	0.0000			0.0000	0.0003	0.0004
	0.0010	0.0101			0.0101	4.20			4.20	0.0001			0.0001	0.0001	0.0002
	0.0013	0.0025	0.0004	0.0005	0.0034	4.03	0.1731		4.20	0.0001	0.0000		0.0001	0.0000	0.0002
	0.0025	0.0350			0.0350	24.2			24.2	0.0001			0.0001		
	0.0019	0.0018	0.0014	0.0020	0.0052	5.04	0.4293		5.47	0.0000	0.0000		0.0000	0.0001	0.0002
	0.0000	0.0001	0.0000	0.0000	0.0001	0.4375	0.0031		0.4406	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0000	0.0001	0.0000	0.0001	0.0002	0.6012	0.0038		0.6050	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0001	0.0003	0.0001	0.0003	0.0006	1.56	0.0171		1.58	0.0000	0.0000		0.0000	0.0000	0.0001
	0.0007	0.0035	0.0002	0.0008	0.0044	16.1	0.0446		16.1	0.0001	0.0000		0.0001	0.0002	0.0008
	0.0016	0.0021	0.0010	0.0027	0.0059	6.24	0.3176		6.55	0.0000	0.0000		0.0000	0.0001	0.0003
	0.0010	0.0014	0.0007	0.0018	0.0038	4.06	0.2069		4.27	0.0000	0.0000		0.0000	0.0000	0.0002
	0.0045	0.0061	0.0030	0.0076	0.0166	17.6	0.8976		18.5	0.0000	0.0000		0.0000	0.0002	0.0008
	0.0013	0.0036	0.0010	0.0024	0.0070	6.91	0.2331		7.14	0.0000	0.0000		0.0000	0.0001	0.0003
	0.0031	0.0035	0.0020	0.0045	0.0100	13.1	0.6279		13.7	0.0000	0.0000		0.0000	0.0002	0.0006
	0.0087	0.0097	0.0058	0.0128	0.0284	36.9	1.77		38.6	0.0001	0.0000		0.0001	0.0004	0.0016
	0.0065	0.0074	0.0043	0.0095	0.0212	27.4	1.32		28.7	0.0001	0.0000		0.0001	0.0003	0.0012
	0.0055	0.0102	0.0045	0.0097	0.0244	22.8	1.12		23.9	0.0001	0.0000		0.0001	0.0003	0.0010
	0.0001	0.0001	0.0000	0.0001	0.0002	0.3560	0.0148		0.3708	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0097	0.0204	0.0071	0.0150	0.0425	49.9	1.79		51.7	0.0002	0.0000		0.0002	0.0006	0.0024
	0.0000	0.0001	0.0000	0.0001	0.0003	0.5751	0.0040		0.5791	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0000	0.0002	0.0000	0.0001	0.0004	0.7895	0.0049		0.7944	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0002	0.0005	0.0001	0.0006	0.0012	2.06	0.0222		2.08	0.0000	0.0000		0.0000	0.0000	0.0001
	0.0006	0.0037	0.0002	0.0008	0.0046	13.5	0.0272		13.5	0.0001	0.0000		0.0001	0.0002	0.0007
	0.0002	0.0004	0.0002	0.0001	0.0007	0.6351	0.0473		0.6824	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0006	0.0009	0.0005	0.0003	0.0017	1.78	0.1338		1.92	0.0000	0.0000		0.0000	0.0000	0.0001
	0.0009	0.0011	0.0008	0.0005	0.0024	2.73	0.2044		2.94	0.0000	0.0000		0.0000	0.0000	0.0001
	0.0013	0.0017	0.0012	0.0008	0.0036	4.63	0.2808		4.91	0.0000	0.0000		0.0000	0.0001	0.0002
	0.0001	0.0001	0.0001	0.0002	0.0004	0.6488	0.0225		0.6714	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0001	0.1226	0.0043		0.1269	0.0000	0.0000		0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0001	0.1684	0.0047		0.1732	0.0000	0.0000		0.0000	0.0000	0.0000
	0.3118	0.4820	0.1537	0.0695	0.7051	508.6	38.3		546.9	0.0119	0.0001		0.0120	0.0144	0.0328
	0.4306	0.8117	0.3261	0.1163	1.25	741.8	50.5		792.4	0.0179	0.0001		0.0180	0.0220	0.0500
	0.1841	0.3033	0.1403	0.0501	0.4937	269.4	21.7		291.1	0.0069	0.0001		0.0069	0.0080	0.0182
	0.0018	0.0080	0.0008	0.0008	0.0095	8.76	0.1733		8.93	0.0001	0.0000		0.0001	0.0002	0.0006
	0.0080	0.0205	0.0039	0.0041	0.0285	21.6	0.8900		22.5	0.0003	0.0000		0.0003	0.0006	0.0015
	0.0079	0.0323	0.0038	0.0040	0.0402	31.9	0.8230		32.7	0.0004	0.0000		0.0004	0.0008	0.0022
	0.0060	0.0191	0.0033	0.0071	0.0295	17.0	0.6756		17.7	0.0001	0.0000		0.0001	0.0004	0.0011
	0.0010	0.0062	0.0009	0.0010	0.0081	10.7	0.1490		10.8	0.0001	0.0000		0.0001	0.0001	0.0007
	0.0018	0.0031	0.0008	0.0013	0.0051	5.48	0.2103		5.69	0.0001	0.0000		0.0001	0.0001	0.0003
	0.0106	0.0185	0.0052	0.0087	0.0324	25.2	1.36		26.6	0.0003	0.0000		0.0003	0.0006	0.0015
	0.0395	0.0465	0.0196	0.0327	0.0988	69.2	5.06		74.3	0.0008	0.0000		0.0008	0.0017	0.0042
	0.2475	0.3496	0.1403	0.2227	0.7126	375.3	30.3		405.6	0.0064	0.0001		0.0065	0.0107	0.0255
	0.0002	0.0007	0.0001	0.0009	0.0017	1.06	0.0222		1.08	0.0000	0.0000		0.0000	0.0000	0.0001
	0.0000	0.0000			0.0000	0.0058			0.0058	0.0000			0.0000	0.0000	0.0000
0.0	1.4	2.3	0.8	0.6	3.7	2,484.0	160.8	0.0	2,644.8	0.1	0.0	0.0	0.1	0.1	0.2

PM10_TOTAL	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL	Fuel_NG
0.0003	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3570	
0.0001	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1009	
0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0002	
0.0005	0.0001			0.0001	0.0000	0.0001	0.0002	0.0001	0.0001		0.0001		0.4779	
0.0128	0.0023	0.0001		0.0023	0.0003	0.0032	0.0058	0.0007	0.0000		0.0007		6.26	
0.0071	0.0014	0.0000		0.0014	0.0002	0.0017	0.0033	0.0004	0.0000		0.0004		3.49	
0.0007	0.0000			0.0000	0.0001	0.0001	0.0002	0.0001	0.0001		0.0001		0.9899	
0.0004	0.0001			0.0001	0.0000	0.0001	0.0002	0.0000	0.0000		0.0000		0.3782	
0.0003	0.0001	0.0000		0.0001	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3782	
0.0001	0.0001			0.0001	0.0001		0.0001	0.0002	0.0001		0.0002		2.18	
0.0003	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.4924	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0397	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0545	
0.0001	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1422	
0.0011	0.0001	0.0000		0.0001	0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.45	
0.0004	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.5898	
0.0002	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3844	
0.0010	0.0000	0.0000		0.0000	0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.67	
0.0004	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.6429	
0.0008	0.0000	0.0000		0.0000	0.0000	0.0002	0.0003	0.0001	0.0000		0.0001		1.23	
0.0022	0.0001	0.0000		0.0001	0.0001	0.0006	0.0008	0.0004	0.0000		0.0004		3.48	
0.0016	0.0001	0.0000		0.0001	0.0001	0.0004	0.0006	0.0003	0.0000		0.0003		2.58	
0.0014	0.0001	0.0000		0.0001	0.0001	0.0004	0.0005	0.0002	0.0000		0.0002		2.15	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0334	
0.0033	0.0002	0.0000		0.0002	0.0002	0.0008	0.0012	0.0005	0.0000		0.0005		4.65	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0521	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0715	
0.0001	0.0000	0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.1872	
0.0010	0.0001	0.0000		0.0001	0.0000	0.0002	0.0004	0.0001	0.0000		0.0001		1.22	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0614	
0.0001	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1725	
0.0002	0.0000	0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.2645	
0.0003	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.4420	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0604	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0114	
0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0156	
0.0592	0.0114	0.0001		0.0114	0.0036	0.0115	0.0265	0.0049	0.0004		0.0052		49.2	
0.0900	0.0171	0.0001		0.0172	0.0055	0.0175	0.0402	0.0071	0.0005		0.0076		71.3	
0.0331	0.0066	0.0000		0.0066	0.0020	0.0064	0.0150	0.0026	0.0002		0.0028		26.2	
0.0009	0.0001	0.0000		0.0001	0.0001	0.0002	0.0004	0.0001	0.0000		0.0001		0.8041	
0.0023	0.0003	0.0000		0.0003	0.0001	0.0005	0.0009	0.0002	0.0000		0.0002		2.03	
0.0034	0.0004	0.0000		0.0004	0.0002	0.0008	0.0014	0.0003	0.0000		0.0003		2.95	
0.0016	0.0001	0.0000		0.0001	0.0001	0.0004	0.0006	0.0002	0.0000		0.0002		1.59	
0.0008	0.0001	0.0000		0.0001	0.0000	0.0002	0.0003	0.0001	0.0000		0.0001		0.9730	
0.0005	0.0000	0.0000		0.0001	0.0000	0.0001	0.0002	0.0001	0.0000		0.0001		0.5121	
0.0024	0.0003	0.0000		0.0003	0.0002	0.0005	0.0010	0.0002	0.0000		0.0003		2.39	
0.0067	0.0007	0.0000		0.0007	0.0004	0.0015	0.0026	0.0007	0.0000		0.0007		6.68	
0.0427	0.0062	0.0001		0.0062	0.0027	0.0089	0.0178	0.0036	0.0003		0.0039		36.5	
0.0001	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0972	
0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0005	
0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	238.0	0.0

Veh_Tech	EMFAC2011 Category	Population	Total_VMT	cVMT	eVMT	Trips	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS
All Other Buses-Dsl	All Other Buses - Dsl	78.1	3,478.1	3,478.1	0	695.2	0.0002	0.0000		0.0002			
LDA-Dsl	LDA - Dsl	159.0	5,653.0	5,653.0	0	707.1	0.0000			0.0000			
LDT1-Dsl	LDT1 - Dsl	0.1795	6.80	6.80	0	0.8277	0.0000			0.0000			
LDT2-Dsl	LDT2 - Dsl	508.9	19,369.2	19,369.2	0	2,347.0	0.0004			0.0004			
LHD1-Dsl	LHD1 - Dsl	3,338.8	105,505.2	105,505.2	0	41,997.7	0.0124	0.0005		0.0128			
LHD2-Dsl	LHD2 - Dsl	1,661.6	50,089.5	50,089.5	0	20,900.4	0.0074	0.0002		0.0076			
MDV-Dsl	MDV - Dsl	898.8	30,737.8	30,737.8	0	4,041.5	0.0003			0.0003			
MH-Dsl	MH - Dsl	398.6	3,552.5	3,552.5	0	39.9	0.0004			0.0004			
Motor Coach-Dsl	Motor Coach - Dsl	19.1	2,427.3	2,427.3	0	439.5	0.0000	0.0001		0.0001			
PTO-Dsl	PTO-Dsl	0	12,867.1	12,867.1	0			0.0002		0.0002			
SBUS-Dsl	SBUS - Dsl	213.5	4,495.7	4,495.7	0	3,090.8	0.0000	0.0000		0.0001			
T6 CAIRP Class 4-Dsl	T6 CAIRP small-Dsl	5.53	397.4	397.4	0	127.0	0.0000	0.0000		0.0000			
T6 CAIRP Class 5-Dsl	T6 CAIRP small-Dsl	6.79	545.9	545.9	0	156.1	0.0000	0.0000		0.0000			
T6 CAIRP Class 6-Dsl	T6 CAIRP small-Dsl	30.8	1,420.9	1,420.9	0	708.5	0.0000	0.0000		0.0000			
T6 CAIRP Class 7-Dsl	T6 CAIRP heavy-Dsl	81.9	16,560.2	16,560.2	0	1,881.1	0.0001	0.0000		0.0001			
T6 Instate Delivery Class 4-Dsl	T6 instate small-Dsl	166.8	5,500.5	5,500.5	0	2,380.3	0.0000	0.0000		0.0001			
T6 Instate Delivery Class 5-Dsl	T6 instate small-Dsl	108.6	3,581.6	3,581.6	0	1,550.0	0.0000	0.0000		0.0000			
T6 Instate Delivery Class 6-Dsl	T6 instate small-Dsl	471.3	15,540.0	15,540.0	0	6,725.5	0.0001	0.0001		6,725.5	0.0001		
T6 Instate Delivery Class 7-Dsl	T6 instate heavy-Dsl	117.2	5,938.6	5,938.6	0	1,672.3	0.0001	0.0000		0.0001			
T6 Instate Other Class 4-Dsl	T6 instate small-Dsl	306.6	11,883.2	11,883.2	0	3,544.4	0.0001	0.0001		0.0001			
T6 Instate Other Class 5-Dsl	T6 instate small-Dsl	865.5	33,551.2	33,551.2	0	10,005.2	0.0002	0.0002		0.0004			
T6 Instate Other Class 6-Dsl	T6 instate small-Dsl	643.9	24,941.8	24,941.8	0	7,444.0	0.0002	0.0001		0.0003			
T6 Instate Other Class 7-Dsl	T6 instate heavy-Dsl	519.4	20,605.7	20,605.7	0	6,004.6	0.0002	0.0001		0.0003			
T6 Instate Tractor Class 6-Dsl	T6 instate small-Dsl	7.23	324.1	324.1	0	83.5	0.0000	0.0000		0.0000			
T6 Instate Tractor Class 7-Dsl	T6 instate heavy-Dsl	853.1	49,353.6	49,353.6	0	9,861.9	0.0004	0.0002		0.0006			
T6 OOS Class 4-Dsl	T6 OOS small-Dsl	7.61	556.4	556.4	0	174.9	0.0000	0.0000		0.0000			
T6 OOS Class 5-Dsl	T6 OOS small-Dsl	9.36	763.2	763.2	0	215.0	0.0000	0.0000		0.0000			
T6 OOS Class 6-Dsl	T6 OOS small-Dsl	42.4	1,994.3	1,994.3	0	974.8	0.0000	0.0000		0.0000			
T6 OOS Class 7-Dsl	T6 OOS heavy-Dsl	52.2	14,501.1	14,501.1	0	1,199.9	0.0001	0.0000		0.0001			
T6 Public Class 4-Dsl	T6 Public-Dsl	15.7	538.4	538.4	0	80.4	0.0000	0.0000		0.0000			
T6 Public Class 5-Dsl	T6 Public-Dsl	43.9	1,506.5	1,506.5	0	225.3	0.0000	0.0000		0.0000			
T6 Public Class 6-Dsl	T6 Public-Dsl	67.7	2,319.4	2,319.4	0	347.4	0.0000	0.0000		0.0001			
T6 Public Class 7-Dsl	T6 Public-Dsl	95.0	3,976.4	3,976.4	0	487.5	0.0000	0.0000		0.0001			
T6 Utility Class 5-Dsl	T6 Utility-Dsl	14.8	588.0	588.0	0	189.0	0.0000	0.0000		0.0000			
T6 Utility Class 6-Dsl	T6 Utility-Dsl	2.79	111.1	111.1	0	35.7	0.0000	0.0000		0.0000			
T6 Utility Class 7-Dsl	T6 Utility-Dsl	3.10	152.5	152.5	0	39.7	0.0000	0.0000		0.0000			
T7 CAIRP Class 8-Dsl	T7 CAIRP-Dsl	1,757.2	366,447.5	366,447.5	0	40,379.8	0.0052	0.0230		0.0283			
T7 NNOOS Class 8-Dsl	T7 NNOOS-Dsl	1,947.7	558,325.6	558,325.6	0	44,757.6	0.0078	0.0317		0.0394			
T7 NOOS Class 8-Dsl	T7 NOOS-Dsl	838.2	202,829.8	202,829.8	0	19,262.0	0.0029	0.0136		0.0165			
T7 Other Port Class 8-Dsl	T7 Other Port-Dsl	24.5	5,884.1	5,884.1	0	400.2	0.0001	0.0001		0.0002			
T7 POAK Class 8-Dsl	T7 POAK-Dsl	125.6	14,562.6	14,562.6	0	2,054.5	0.0002	0.0005		0.0007			
T7 POLA Class 8-Dsl	T7 POLA-Dsl	114.6	21,247.5	21,247.5	0	1,874.3	0.0003	0.0005		0.0008			
T7 Public Class 8-Dsl	T7 Public-Dsl	242.5	9,765.6	9,765.6	0	1,244.0	0.0003	0.0004		0.0007			
T7 SWCV Class 8-Dsl	T7 SWCV-Dsl	44.5	2,887.8	2,887.8	0	204.7	0.0001	0.0001		0.0002			
T7 Single Concrete/Transit Mix Class 8-Dsl	T7 Single-Dsl	52.8	3,488.3	3,488.3	0	497.7	0.0000	0.0001		0.0002			
T7 Single Dump Class 8-Dsl	T7 Single-Dsl	321.9	15,625.7	15,625.7	0	3,032.6	0.0002	0.0008		0.0010			
T7 Single Other Class 8-Dsl	T7 Single-Dsl	1,234.9	43,426.8	43,426.8	0	11,633.1	0.0005	0.0029		0.0034			
T7 Tractor Class 8-Dsl	T7 Tractor-Dsl	4,176.7	271,231.2	271,231.2	0	60,687.9	0.0035	0.0181		0.0216			
T7 Utility Class 8-Dsl	T7 Utility-Dsl	15.3	632.3	632.3	0	196.3	0.0000	0.0000		0.0000			
UBUS-Dsl	UBUS - Dsl	0.2247	8.11	8.11	0	0.8988	0.0000			0.0000			
TOTALs		22,712.5	1,971,697.6	1,971,697.6	0.0	316,599.5	0.0	0.1	0.0	0.1	0.0	0.0	0.0

TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN	ROG_HTSK	ROG_RUNLS	ROG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX
0.0002	0.0002	0.0000		0.0002				0.0002	0.0007	0.0002		0.0008	0.0044	0.0002	0.0007
0.0000	0.0000			0.0000				0.0000	0.0012	0.0000		0.0012	0.0012		
0.0000	0.0000			0.0000				0.0000	0.0000			0.0000	0.0000		
0.0004	0.0004			0.0004				0.0004	0.0041			0.0041	0.0007		
0.0128	0.0109	0.0004		0.0113				0.0113	0.0282	0.0033		0.0315	0.0388	0.0041	
0.0076	0.0065	0.0002		0.0067				0.0067	0.0172	0.0017		0.0188	0.0269	0.0022	
0.0003	0.0002			0.0002				0.0002	0.0071			0.0071	0.0005		
0.0004	0.0003			0.0003				0.0003	0.0010			0.0010	0.0102		
0.0001	0.0000	0.0001		0.0001				0.0001	0.0001	0.0012		0.0013	0.0025	0.0004	0.0005
0.0002	0.0002			0.0002				0.0002	0.0025			0.0025	0.0353		
0.0001	0.0000	0.0000		0.0001				0.0001	0.0003	0.0017		0.0019	0.0018	0.0014	0.0020
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0001	0.0000	0.0000
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0001	0.0000	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001		0.0001	0.0003	0.0001	0.0003
0.0001	0.0001	0.0000		0.0001				0.0001	0.0005	0.0002		0.0007	0.0035	0.0002	0.0008
0.0001	0.0000	0.0000		0.0001				0.0001	0.0003	0.0013		0.0016	0.0022	0.0011	0.0027
0.0000	0.0000	0.0000		0.0000				0.0000	0.0002	0.0008		0.0011	0.0014	0.0007	0.0018
0.0002	0.0001	0.0001		0.0002				0.0002	0.0009	0.0037		0.0046	0.0061	0.0030	0.0077
0.0001	0.0001	0.0000		0.0001				0.0001	0.0004	0.0009		0.0013	0.0037	0.0010	0.0024
0.0001	0.0001	0.0001		0.0001				0.0001	0.0005	0.0026		0.0031	0.0035	0.0020	0.0046
0.0004	0.0002	0.0002		0.0004				0.0004	0.0016	0.0072		0.0088	0.0098	0.0058	0.0129
0.0003	0.0001	0.0001		0.0003				0.0003	0.0012	0.0054		0.0065	0.0074	0.0043	0.0096
0.0003	0.0002	0.0001		0.0003				0.0003	0.0012	0.0043		0.0055	0.0103	0.0046	0.0098
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001		0.0001	0.0001	0.0000	0.0001
0.0006	0.0004	0.0002		0.0005				0.0005	0.0027	0.0071		0.0098	0.0206	0.0071	0.0151
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0001	0.0000	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0002	0.0000	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0001		0.0002	0.0005	0.0001	0.0006
0.0001	0.0001	0.0000		0.0001				0.0001	0.0005	0.0001		0.0006	0.0037	0.0002	0.0008
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0002		0.0002	0.0004	0.0002	0.0001
0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0005		0.0006	0.0009	0.0006	0.0003
0.0001	0.0000	0.0000		0.0000				0.0000	0.0001	0.0008		0.0009	0.0011	0.0008	0.0005
0.0001	0.0000	0.0000		0.0001				0.0001	0.0002	0.0011		0.0013	0.0017	0.0012	0.0008
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0001		0.0001	0.0001	0.0001	0.0002
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000		0.0000				0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
0.0283	0.0046	0.0202		0.0248				0.0248	0.0156	0.2986		0.3142	0.4856	0.1549	0.0700
0.0394	0.0068	0.0278		0.0346				0.0346	0.0231	0.4108		0.4339	0.8179	0.3286	0.1172
0.0165	0.0026	0.0120		0.0145				0.0145	0.0087	0.1768		0.1855	0.3056	0.1414	0.0505
0.0002	0.0001	0.0001		0.0002				0.0002	0.0004	0.0014		0.0018	0.0080	0.0008	0.0008
0.0007	0.0002	0.0005		0.0006				0.0006	0.0010	0.0070		0.0080	0.0206	0.0040	0.0041
0.0008	0.0003	0.0004		0.0007				0.0007	0.0016	0.0064		0.0080	0.0326	0.0039	0.0040
0.0007	0.0003	0.0003		0.0006				0.0006	0.0015	0.0045		0.0061	0.0192	0.0034	0.0071
0.0002	0.0001	0.0001		0.0001				0.0001	0.0002	0.0008		0.0010	0.0062	0.0009	0.0010
0.0002	0.0000	0.0001		0.0001				0.0001	0.0002	0.0016		0.0018	0.0031	0.0008	0.0013
0.0010	0.0002	0.0007		0.0008				0.0008	0.0009	0.0098		0.0107	0.0186	0.0053	0.0087
0.0034	0.0005	0.0025		0.0030				0.0030	0.0023	0.0374		0.0398	0.0469	0.0197	0.0330
0.0216	0.0031	0.0159		0.0190				0.0190	0.0143	0.2351		0.2494	0.3523	0.1413	0.2244
0.0000	0.0000	0.0000		0.0000				0.0000	0.0001	0.0002		0.0002	0.0007	0.0001	0.0009
0.0000	0.0000			0.0000				0.0000	0.0000			0.0000	0.0000		
0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	1.2	0.0	1.4	2.3	0.8	0.6

NOx_TOTEX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX
0.0052	3.95	0.0463		4.00	0.0000	0.0000		0.0000	0.0000	0.0002	0.0003	0.0000	0.0000		0.0000
0.0001	1.13			1.13	0.0000			0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0000	0.0025			0.0025	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0007	5.35			5.35	0.0001			0.0001	0.0002	0.0002	0.0005	0.0001			0.0001
0.0429	69.6	0.4306		70.0	0.0024	0.0001		0.0025	0.0014	0.0091	0.0129	0.0023	0.0001		0.0024
0.0291	38.7	0.3506		39.1	0.0015	0.0001		0.0015	0.0007	0.0050	0.0072	0.0014	0.0000		0.0014
0.0005	11.1			11.1	0.0000			0.0000	0.0003	0.0004	0.0007	0.0000			0.0000
0.0102	4.23			4.23	0.0001			0.0001	0.0001	0.0002	0.0004	0.0001			0.0001
0.0034	4.06	0.1744		4.23	0.0001	0.0000		0.0001	0.0000	0.0002	0.0003	0.0001	0.0000		0.0001
0.0353	24.4			24.4	0.0001			0.0001	0.0001		0.0001	0.0001			0.0001
0.0052	5.08	0.4325		5.51	0.0000	0.0000		0.0000	0.0001	0.0002	0.0003	0.0000	0.0000		0.0000
0.0001	0.4409	0.0031		0.4440	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0002	0.6058	0.0038		0.6096	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0006	1.58	0.0173		1.59	0.0000	0.0173		0.0000	0.0000	0.0001	0.0000	0.0000	0.0000		0.0000
0.0045	16.2	0.0449		16.3	0.0001	0.0000		0.0001	0.0002	0.0008	0.0011	0.0001	0.0000		0.0001
0.0059	6.28	0.3201		6.60	0.0000	0.0000		0.0000	0.0001	0.0003	0.0004	0.0000	0.0000		0.0000
0.0038	4.10	0.2085		4.30	0.0000	0.0000		0.0000	0.0000	0.0002	0.0002	0.0000	0.0000		0.0000
0.0168	17.8	0.9044		18.7	0.0000	0.9044		0.0000	0.0000	0.0002	0.0008	0.0011	0.0000		0.0000
0.0070	6.96	0.2349		7.20	0.0000	0.0000		0.0000	0.0001	0.0003	0.0004	0.0000	0.0000		0.0000
0.0101	13.2	0.6327		13.8	0.0000	0.0000		0.0000	0.0002	0.0006	0.0008	0.0000	0.0000		0.0000
0.0286	37.1	1.79		38.9	0.0001	0.0000		0.0001	0.0001	0.0004	0.0017	0.0022	0.0001		0.0001
0.0214	27.6	1.33		28.9	0.0001	0.0000		0.0001	0.0001	0.0003	0.0012	0.0017	0.0001		0.0001
0.0246	23.0	1.12		24.1	0.0001	0.0000		0.0001	0.0003	0.0010	0.0014	0.0001	0.0000		0.0001
0.0003	0.3588	0.0149		0.3737	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0428	50.3	1.80		52.1	0.0002	0.0000		0.0002	0.0007	0.0024	0.0033	0.0002	0.0000		0.0002
0.0003	0.5795	0.0040		0.5835	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0004	0.7955	0.0049		0.8004	0.0000	0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000
0.0013	2.07	0.0223		2.10	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0046	13.6	0.0274		13.6	0.0001	0.0000		0.0001	0.0001	0.0002	0.0007	0.0010	0.0001		0.0001
0.0007	0.6400	0.0477		0.6876	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0017	1.80	0.1348		1.93	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0024	2.75	0.2059		2.96	0.0000	0.0000		0.0000	0.0000	0.0001	0.0002	0.0000	0.0000		0.0000
0.0036	4.67	0.2830		4.95	0.0000	0.0000		0.0000	0.0000	0.0001	0.0002	0.0003	0.0000		0.0000
0.0004	0.6538	0.0227		0.6765	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0001	0.1236	0.0043		0.1279	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.0001	0.1697	0.0048		0.1745	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
0.7105	512.5	38.6		551.1	0.0120	0.0001		0.0120	0.0145	0.0331	0.0597	0.0114	0.0001		0.0115
1.26	747.5	50.9		798.4	0.0180	0.0001		0.0181	0.0222	0.0504	0.0906	0.0172	0.0001		0.0173
0.4975	271.4	21.9		293.3	0.0069	0.0001		0.0070	0.0080	0.0183	0.0333	0.0066	0.0000		0.0067
0.0096	8.83	0.1747		9.00	0.0001	0.0000		0.0001	0.0002	0.0006	0.0010	0.0001	0.0000		0.0001
0.0287	21.8	0.8968		22.7	0.0003	0.0000		0.0003	0.0003	0.0006	0.0015	0.0024	0.0003		0.0003
0.0405	32.2	0.8292		33.0	0.0004	0.0000		0.0004	0.0008	0.0022	0.0035	0.0004	0.0000		0.0004
0.0297	17.2	0.6808		17.8	0.0001	0.0000		0.0001	0.0004	0.0012	0.0016	0.0001	0.0000		0.0001
0.0082	10.7	0.1502		10.9	0.0001	0.0000		0.0001	0.0001	0.0001	0.0007	0.0001	0.0000		0.0001
0.0051	5.52	0.2119		5.73	0.0001	0.0000		0.0001	0.0001	0.0003	0.0005	0.0001	0.0000		0.0001
0.0326	25.4	1.37		26.8	0.0003	0.0000		0.0003	0.0006	0.0015	0.0024	0.0003	0.0000		0.0003
0.0996	69.7	5.10		74.8	0.0008	0.0000		0.0008	0.0017	0.0042	0.0067	0.0007	0.0000		0.0008
0.7180	378.1	30.6		408.7	0.0065	0.0001		0.0066	0.0108	0.0257	0.0430	0.0062	0.0001		0.0063
0.0017	1.07	0.0224		1.09	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000
0.0000	0.0059			0.0059	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000			0.0000
3.8	2,502.9	162.0	0.0	2,665.0	0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.0	0.0	0.0

PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL	Fuel_NG
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3597	
0.0000	0.0000	0.0000	0.0000			0.0000		0.1017	
0.0000	0.0000	0.0000	0.0000			0.0000		0.0002	
0.0000	0.0001	0.0002	0.0001			0.0001		0.4816	
0.0003	0.0032	0.0059	0.0007	0.0000		0.0007		6.30	
0.0002	0.0018	0.0034	0.0004	0.0000		0.0004		3.51	
0.0001	0.0001	0.0002	0.0001			0.0001		0.9975	
0.0000	0.0001	0.0002	0.0000			0.0000		0.3811	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3811	
		0.0001	0.0002			0.0001		2.20	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0001		0.4962	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0400	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0549	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1433	
0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.46	
0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.5943	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3873	
0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.68	
0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.6478	
0.0000	0.0002	0.0003	0.0001	0.0000		0.0001		1.24	
0.0001	0.0006	0.0008	0.0004	0.0000		0.0004		3.50	
0.0001	0.0004	0.0006	0.0003	0.0000		0.0003		2.60	
0.0001	0.0004	0.0005	0.0002	0.0000		0.0002		2.17	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0336	
0.0002	0.0009	0.0012	0.0005	0.0000		0.0005		4.69	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0525	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0720	
0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.1887	
0.0000	0.0002	0.0004	0.0001	0.0000		0.0001		1.23	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0619	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.1739	
0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.2665	
0.0000	0.0001	0.0001	0.0000	0.0000		0.0001		0.4454	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0609	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0115	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0157	
0.0036	0.0116	0.0267	0.0049	0.0004		0.0053		49.6	
0.0055	0.0176	0.0405	0.0071	0.0005		0.0076		71.9	
0.0020	0.0064	0.0151	0.0026	0.0002		0.0028		26.4	
0.0001	0.0002	0.0004	0.0001	0.0000		0.0001		0.8102	
0.0001	0.0005	0.0009	0.0002	0.0000		0.0002		2.04	
0.0002	0.0008	0.0014	0.0003	0.0000		0.0003		2.97	
0.0001	0.0004	0.0006	0.0002	0.0000		0.0002		1.61	
0.0000	0.0002	0.0003	0.0001	0.0000		0.0001		0.9804	
0.0000	0.0001	0.0002	0.0001	0.0000		0.0001		0.5160	
0.0002	0.0005	0.0010	0.0002	0.0000		0.0003		2.41	
0.0004	0.0015	0.0027	0.0007	0.0000		0.0007		6.73	
0.0027	0.0090	0.0180	0.0036	0.0003		0.0039		36.8	
0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0979	
0.0000	0.0000	0.0000	0.0000			0.0000		0.0005	
0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	239.8	0.0

SJCOG 2022 RTP/SCS GHG Emissions Estimates

Annual Emissions (metric tons per year)

Year	SJCOG			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Baseline (2016)	3,114,700	194	259	3,196,610
2046 No Build	2,746,806	55	189	2,804,447
2046 Scenario B	2,767,753	55	190	2,825,832
2046 Project (Scenario E)	2,779,300	56	191	2,837,622
Net Change (2016 to 2046 Project)	(335,400)	(139)	(68)	(358,988)
% Change (2016 to 2046 Project)	-10.77%	-71.33%	-26.12%	-11.23%
Net Change (2046 Project to 2046 No Build)	32,493	1	2	33,175
Net Change (2046 Project to 2046 ScenB)	11,547	0	1	11,790

2016 Population	732,185
2046 Population	994,257

**GWPs of 25 for CH₄ and 298 for N₂O were utilized to calculate CO₂e (consistent with CARB's 2017 Scoping Plan, which relied on IPCC AR4 estimates).*

	SJCOG			
	Existing (2016)	2046 No Build	2046 Scenario B	2046 Project (Scenario E)
Daily VMT	17,015,116	23,220,752	23,397,883	23,495,442
Daily Trips	2,276,639	3,063,084	3,086,045	3,099,319
Daily Vehicles	435,231	588,960	593,453	595,927

- Daily VMT provided by SJCOG. **Induced Demand not included.** Daily Trips and Daily Vehicles based on EMFAC2021 Planning Inventory outputs for the respective year.

Days per Year	365
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SB 32 Analysis - CO ₂ Emissions Estimates						
Year	SICOG					
	VMT	CO ₂ (tons/day)	CO ₂ (lbs/day)	Population	Per Capita CO ₂ (lbs/person/day)	% change from 1990 Baseline
1990*	n/a	n/a	n/a	n/a	23.0	n/a
2005	14,600,612	8,734.1	17,468,200.00	645,059	27.1	n/a
Baseline (2016)	17,015,116	9,231.4	18,462,800.00	732,185	25.2	9.5%
2030 with 2022 RTP/SCS**	20,686,572	8,552.8	17,105,600.00	882,163	19.4	-15.8%
2046 with 2022 RTP/SCS	23,495,442	8,287.3	16,574,600.00	994,257	16.7	-27.6%

*1990 per capita levels assumed to be 15% below 2005 levels

**2030 VMT calculated via linear interpolation using 2029 and 2031 values. Population from SICOG Demographic Forecast

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: MPO

Region: SJCOG

Calendar Year: 2016

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Fleet Mix (Population)	VMT	Fleet Mix (VMT)	Trips	Fleet Mix (Trips)
SJCOG	2016	All Other Buses	Aggregate	Aggregate	Diesel	70.91	0.02%	3225.87155	0.02%	631.099	0.03%
SJCOG	2016	LDA	Aggregate	Aggregate	Gasoline	231784.6221	49.06%	9410786.552	50.95%	1073641.52	43.45%
SJCOG	2016	LDA	Aggregate	Aggregate	Diesel	1180.008278	0.25%	47111.60297	0.26%	5380.96023	0.22%
SJCOG	2016	LDA	Aggregate	Aggregate	Electricity	703.4435249	0.15%	24627.41372	0.13%	3578.58363	0.14%
SJCOG	2016	LDA	Aggregate	Aggregate	Plug-in Hybrid	1350.795861	0.29%	72765.42309	0.39%	5585.54088	0.23%
SJCOG	2016	LDT1	Aggregate	Aggregate	Gasoline	24430.02172	5.17%	823752.5353	4.46%	106850.451	4.32%
SJCOG	2016	LDT1	Aggregate	Aggregate	Diesel	38.8560307	0.01%	749.1081564	0.00%	138.533964	0.01%
SJCOG	2016	LDT1	Aggregate	Aggregate	Electricity	8.025104049	0.00%	199.2956949	0.00%	36.4780101	0.00%
SJCOG	2016	LDT2	Aggregate	Aggregate	Gasoline	76380.49359	16.17%	2877639.525	15.58%	349154.375	14.13%
SJCOG	2016	LDT2	Aggregate	Aggregate	Diesel	136.5140048	0.03%	6301.257053	0.03%	649.390978	0.03%
SJCOG	2016	LDT2	Aggregate	Aggregate	Electricity	7.993196154	0.00%	202.7319526	0.00%	36.6191796	0.00%
SJCOG	2016	LDT2	Aggregate	Aggregate	Plug-in Hybrid	7.300923101	0.00%	414.4462327	0.00%	30.189317	0.00%
SJCOG	2016	LHD1	Aggregate	Aggregate	Gasoline	8792.111987	1.86%	287903.0038	1.56%	130989.368	5.30%
SJCOG	2016	LHD1	Aggregate	Aggregate	Diesel	8989.768645	1.90%	339914.69	1.84%	113079.98	4.58%
SJCOG	2016	LHD2	Aggregate	Aggregate	Gasoline	1061.533975	0.22%	36176.54137	0.20%	15815.2745	0.64%
SJCOG	2016	LHD2	Aggregate	Aggregate	Diesel	2551.905069	0.54%	101421.807	0.55%	32099.7555	1.30%
SJCOG	2016	MCY	Aggregate	Aggregate	Gasoline	12580.6502	2.66%	75688.30681	0.41%	25161.3004	1.02%
SJCOG	2016	MDV	Aggregate	Aggregate	Gasoline	83198.99582	17.61%	2870153.138	15.54%	377070.962	15.26%
SJCOG	2016	MDV	Aggregate	Aggregate	Diesel	941.3081731	0.20%	44021.69719	0.24%	4613.84633	0.19%
SJCOG	2016	MDV	Aggregate	Aggregate	Electricity	0.994845578	0.00%	21.44557848	0.00%	4.3653227	0.00%
SJCOG	2016	MDV	Aggregate	Aggregate	Plug-in Hybrid	34.83424526	0.01%	1948.613541	0.01%	144.039604	0.01%
SJCOG	2016	MH	Aggregate	Aggregate	Gasoline	1996.823529	0.42%	16769.78828	0.09%	199.762226	0.01%
SJCOG	2016	MH	Aggregate	Aggregate	Diesel	604.1922926	0.13%	5838.373233	0.03%	60.4192293	0.00%
SJCOG	2016	Motor Coach	Aggregate	Aggregate	Diesel	19.06807515	0.00%	2371.692937	0.01%	438.184367	0.02%
SJCOG	2016	OBUS	Aggregate	Aggregate	Gasoline	207.8527552	0.04%	11208.68551	0.06%	4158.71793	0.17%
SJCOG	2016	PTO	Aggregate	Aggregate	Diesel	0	0.00%	18329.45792	0.10%	0	0.00%
SJCOG	2016	SBUS	Aggregate	Aggregate	Gasoline	40.37612361	0.01%	2210.642554	0.01%	161.504494	0.01%
SJCOG	2016	SBUS	Aggregate	Aggregate	Diesel	543.0266424	0.11%	11447.81662	0.06%	7863.02578	0.32%
SJCOG	2016	SBUS	Aggregate	Aggregate	Natural Gas	58.21335758	0.01%	1352.332365	0.01%	842.929418	0.03%
SJCOG	2016	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	8.259099923	0.00%	627.1338631	0.00%	189.81273	0.01%
SJCOG	2016	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	10.70616483	0.00%	860.3148867	0.00%	246.027668	0.01%
SJCOG	2016	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	27.67839628	0.01%	2248.027413	0.01%	636.049546	0.03%
SJCOG	2016	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	90.32002179	0.02%	14100.76421	0.08%	2075.5541	0.08%
SJCOG	2016	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	292.7862967	0.06%	7578.179485	0.04%	4178.06045	0.17%
SJCOG	2016	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	213.9234396	0.05%	4929.234121	0.03%	3052.68748	0.12%
SJCOG	2016	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	724.0968442	0.15%	21391.88152	0.12%	10332.862	0.42%
SJCOG	2016	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	318.8048478	0.07%	6425.407336	0.03%	4549.34518	0.18%
SJCOG	2016	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	0.018637914	0.00%	0.398486996	0.00%	0.26596303	0.00%
SJCOG	2016	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	585.1996204	0.12%	16842.29427	0.09%	6764.90761	0.27%
SJCOG	2016	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	931.8145632	0.20%	47551.45978	0.26%	10771.7764	0.44%
SJCOG	2016	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	923.5006626	0.20%	35318.25977	0.19%	10675.6677	0.43%
SJCOG	2016	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	1026.912962	0.22%	24071.54778	0.13%	11871.1138	0.48%
SJCOG	2016	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	0.058384798	0.00%	2.389167579	0.00%	0.67492826	0.00%
SJCOG	2016	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	10.50468889	0.00%	467.597365	0.00%	121.434204	0.00%
SJCOG	2016	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	562.9679387	0.12%	40353.2635	0.22%	6507.90937	0.26%
SJCOG	2016	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	0.031112486	0.00%	3.520893584	0.00%	0.35966034	0.00%
SJCOG	2016	T6 OOS Class 4	Aggregate	Aggregate	Diesel	4.737193295	0.00%	359.0631656	0.00%	108.860702	0.00%
SJCOG	2016	T6 OOS Class 5	Aggregate	Aggregate	Diesel	6.144132219	0.00%	492.5700952	0.00%	141.192158	0.01%
SJCOG	2016	T6 OOS Class 6	Aggregate	Aggregate	Diesel	15.88044892	0.00%	1287.099751	0.01%	364.932716	0.01%
SJCOG	2016	T6 OOS Class 7	Aggregate	Aggregate	Diesel	51.78176219	0.01%	9358.815687	0.05%	1189.9449	0.05%
SJCOG	2016	T6 Public Class 4	Aggregate	Aggregate	Diesel	53.23384601	0.01%	1003.852762	0.01%	273.08963	0.01%
SJCOG	2016	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	0.518893237	0.00%	12.07423438	0.00%	2.66192231	0.00%
SJCOG	2016	T6 Public Class 5	Aggregate	Aggregate	Diesel	72.32704997	0.02%	2769.650974	0.01%	371.037766	0.02%
SJCOG	2016	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	1.804112644	0.00%	76.80861674	0.00%	9.25509786	0.00%
SJCOG	2016	T6 Public Class 6	Aggregate	Aggregate	Diesel	75.99059256	0.02%	4286.29603	0.02%	389.83174	0.02%
SJCOG	2016	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	0.814598627	0.00%	59.314828	0.00%	4.17889096	0.00%

SCENARIO	SICOG 2016 - RUNEX
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Source	EMFAC2021 (v1.0.2) Emission Rates
Region Type	MPO
Region	SICOG
Calendar Year	2016
Season	Annual
Vehicle Classification	EMFAC202x Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for VMT, g/mile for RUNEX

Daily VMT	17,015,116
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ RUNEX	CH ₄ RUNEX	N ₂ O RUNEX	Fleet Mix (by VMT)	VMT per Day	CO ₂ RUNEX Emissions (MT/day)	CH ₄ RUNEX Emissions (MT/day)	N ₂ O RUNEX Emissions (MT/day)
SICOG	2016	All Other Buses	Aggregate	Aggregate	Diesel	1299.057254	0.068366146	0.204293694	0.02%	2,971.90	3.86E+00	2.03E-04	6.07E-04
SICOG	2016	LDA	Aggregate	Aggregate	Gasoline	320.3616427	0.007844168	0.010520629	50.95%	8,669,883.7	2.78E+03	6.80E-02	9.12E-02
SICOG	2016	LDA	Aggregate	Aggregate	Diesel	245.6464174	0.001769159	0.038631102	0.26%	43,402.55	1.07E+01	7.68E-05	1.68E-03
SICOG	2016	LDA	Aggregate	Aggregate	Electricity	0	0	0	0.13%	22,688.52	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LDA	Aggregate	Aggregate	Plug-in Hybrid	161.6650538	0.000580881	0.000727446	0.39%	67,036.67	1.08E+01	3.89E-05	4.88E-05
SICOG	2016	LDT1	Aggregate	Aggregate	Gasoline	374.3904885	0.019975803	0.022052938	4.46%	758,899.24	2.84E+02	1.52E-02	1.67E-02
SICOG	2016	LDT1	Aggregate	Aggregate	Diesel	448.4888408	0.010238709	0.070530719	0.00%	690.13	3.10E-01	7.07E-06	4.87E-05
SICOG	2016	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0.00%	183.61	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LDT2	Aggregate	Aggregate	Gasoline	422.7046178	0.011388641	0.017855109	15.58%	2,651,085.54	1.12E+03	3.02E-02	4.73E-02
SICOG	2016	LDT2	Aggregate	Aggregate	Diesel	343.8272663	0.001686343	0.054071321	0.03%	5,805.16	2.00E+00	9.79E-06	3.14E-04
SICOG	2016	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0.00%	186.77	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LDT2	Aggregate	Aggregate	Plug-in Hybrid	161.7983446	0.000584329	0.00073534	0.00%	381.82	6.18E-02	2.23E-07	2.81E-07
SICOG	2016	LHD1	Aggregate	Aggregate	Gasoline	1022.744534	0.027585766	0.028253452	1.56%	265,236.66	2.71E+02	7.32E-03	7.49E-03
SICOG	2016	LHD1	Aggregate	Aggregate	Diesel	634.289503	0.013895695	0.099750296	1.84%	313,153.51	1.99E+02	4.35E-03	3.12E-02
SICOG	2016	LHD2	Aggregate	Aggregate	Gasoline	1141.481793	0.020676247	0.025518158	0.20%	33,328.39	3.80E+01	6.89E-04	8.50E-04
SICOG	2016	LHD2	Aggregate	Aggregate	Diesel	795.7784531	0.011779422	0.125146539	0.55%	93,436.96	7.44E+01	1.10E-03	1.17E-02
SICOG	2016	MCY	Aggregate	Aggregate	Gasoline	198.795863	0.252295433	0.049509869	0.41%	69,729.43	1.39E+01	1.76E-02	3.45E-03
SICOG	2016	MDV	Aggregate	Aggregate	Gasoline	501.7289874	0.01409112	0.022517632	15.54%	2,644,188.55	1.33E+03	3.73E-02	5.95E-02
SICOG	2016	MDV	Aggregate	Aggregate	Diesel	441.5363694	0.00093178	0.069437352	0.24%	40,555.91	1.79E+01	3.78E-05	2.82E-03
SICOG	2016	MDV	Aggregate	Aggregate	Electricity	0	0	0	0.00%	19.76	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	MDV	Aggregate	Aggregate	Plug-in Hybrid	161.8201239	0.000583336	0.000733074	0.01%	1,795.20	2.90E-01	1.05E-06	1.32E-06
SICOG	2016	MH	Aggregate	Aggregate	Gasoline	1953.607878	0.034690017	0.044076707	0.09%	15,449.52	3.02E+01	5.36E-04	6.81E-04
SICOG	2016	MH	Aggregate	Aggregate	Diesel	1075.873669	0.007217998	0.169195164	0.03%	5,378.72	5.79E+00	3.88E-05	9.10E-04
SICOG	2016	Motor Coach	Aggregate	Aggregate	Diesel	1691.062988	0.017178811	0.265941707	0.01%	2,184.97	3.69E+00	3.75E-05	5.81E-04
SICOG	2016	OBUS	Aggregate	Aggregate	Gasoline	1879.426477	0.037130488	0.055005697	0.06%	10,326.24	1.94E+01	3.83E-04	5.68E-04
SICOG	2016	PTO	Aggregate	Aggregate	Diesel	2246.734896	0.030131011	0.353328361	0.10%	16,886.40	3.79E+01	5.09E-04	5.97E-03
SICOG	2016	SBUS	Aggregate	Aggregate	Gasoline	898.8333176	0.142806349	0.072139412	0.01%	2,036.60	1.83E+00	2.91E-04	1.47E-04
SICOG	2016	SBUS	Aggregate	Aggregate	Diesel	1165.371545	0.004391464	0.183269872	0.06%	10,546.54	1.23E+01	4.63E-05	1.93E-03
SICOG	2016	SBUS	Aggregate	Aggregate	Natural Gas	1343.885959	3.768567343	0.273959944	0.01%	1,245.86	1.67E+00	4.70E-03	3.41E-04
SICOG	2016	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	1090.623689	0.006296841	0.171514797	0.00%	577.76	6.30E-01	3.64E-06	9.91E-05
SICOG	2016	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	1090.623689	0.006296841	0.171514797	0.00%	792.58	8.64E-01	4.99E-06	1.36E-04
SICOG	2016	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	1090.623689	0.006296841	0.171514797	0.01%	2,071.04	2.26E+00	1.30E-05	3.55E-04
SICOG	2016	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	1046.142754	0.006191374	0.16451959	0.08%	12,990.62	1.36E+01	8.04E-05	2.14E-03
SICOG	2016	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1266.705617	0.028006316	0.199205977	0.04%	6,981.56	8.84E+00	1.96E-04	1.39E-03
SICOG	2016	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1266.714187	0.02801132	0.199207324	0.03%	4,541.16	5.75E+00	1.27E-04	9.05E-04
SICOG	2016	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1266.697007	0.028001288	0.199204623	0.12%	19,707.72	2.50E+01	5.52E-04	3.93E-03
SICOG	2016	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	1281.345213	0.028068783	0.201508244	0.03%	5,919.54	7.58E+00	1.66E-04	1.19E-03
SICOG	2016	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	1054.872764	0.72676944	0.215042714	0.00%	0.37	3.87E-04	2.67E-07	7.89E-08
SICOG	2016	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1173.263538	0.02006513	0.184510991	0.09%	15,516.32	1.82E+01	3.11E-04	2.86E-03
SICOG	2016	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	1173.098124	0.019948494	0.184484978	0.26%	43,807.78	5.14E+01	8.74E-04	8.08E-03
SICOG	2016	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	1173.64164	0.020338441	0.184570453	0.19%	32,537.68	3.82E+01	6.62E-04	6.01E-03
SICOG	2016	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	1174.150398	0.017506595	0.184650462	0.13%	22,176.42	2.60E+01	3.88E-04	4.09E-03
SICOG	2016	T6 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	916.549843	0.555313983	0.186844681	0.00%	2.20	2.02E-03	1.22E-06	4.11E-07
SICOG	2016	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	1171.022292	0.019124261	0.184158526	0.00%	430.78	5.04E-01	8.24E-06	7.93E-05
SICOG	2016	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	1148.847759	0.019675982	0.180671292	0.22%	37,176.29	4.27E+01	7.31E-04	6.72E-03
SICOG	2016	T6 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	916.549843	0.555313983	0.186844681	0.00%	3.24	2.97E-03	1.80E-06	6.06E-07
SICOG	2016	T6 OOS Class 4	Aggregate	Aggregate	Diesel	1090.618249	0.006311237	0.171513942	0.00%	330.79	3.61E-01	2.09E-06	5.67E-05
SICOG	2016	T6 OOS Class 5	Aggregate	Aggregate	Diesel	1090.618249	0.006311237	0.171513942	0.00%	453.79	4.95E-01	2.86E-06	7.78E-05
SICOG	2016	T6 OOS Class 6	Aggregate	Aggregate	Diesel	1090.618249	0.006311237	0.171513942	0.01%	1,185.77	1.29E+00	7.48E-06	2.03E-04
SICOG	2016	T6 OOS Class 7	Aggregate	Aggregate	Diesel	1046.210871	0.006743133	0.164530303	0.05%	8,622.00	9.02E+00	5.81E-05	1.42E-03
SICOG	2016	T6 Public Class 4	Aggregate	Aggregate	Diesel	1281.254923	0.004699268	0.201494045	0.01%	924.82	1.18E+00	4.35E-06	1.86E-04
SICOG	2016	T6 Public Class 4	Aggregate	Aggregate	Natural Gas	1043.985294	0.772382609	0.212823232	0.00%	11.12	1.16E-02	8.59E-06	2.37E-06
SICOG	2016	T6 Public Class 5	Aggregate	Aggregate	Diesel	1255.42934	0.00390962	0.197432635	0.01%	2,551.60	3.20E+00	8.65E-06	5.04E-04
SICOG	2016	T6 Public Class 5	Aggregate	Aggregate	Natural Gas	1043.456332	0.772382609	0.212715399	0.00%	70.76	7.38E-02	5.47E-05	1.51E-05
SICOG	2016	T6 Public Class 6	Aggregate	Aggregate	Diesel	1305.855775	0.006431499	0.205362849	0.02%	3,948.84	5.16E+00	2.54E-05	8.11E-04
SICOG	2016	T6 Public Class 6	Aggregate	Aggregate	Natural Gas	1042.755288	0.772382609	0.212572487	0.00%	54.65	5.70E-02	4.22E-05	1.16E-05

SCENARIO SICOG 2016 - STREX and IDLEX

Source	EMFAC2021 (v.D.2) Emission Rates
Region Type	MPO
Region	SICOG
Calendar Year	2016
Season	Annual
Vehicle Classification	EMFAC2021 Categories
Emission Rate and Vehicle Activity Units	Units: miles/day for VMT, g/mile for RUNEX

Daily Trips	2,276,439
Daily Vehicles	435,231

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ IDLEX	CO ₂ STREX	CH ₄ IDLEX	CH ₄ STREX	N ₂ O IDLEX	N ₂ O STREX	Fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	Fleet Mix (by Vehicle Population)	Vehicles per Day	CO ₂ STREX Emissions [tons/day]	CO ₂ IDLEX Emissions [MT/day]	CH ₄ STREX Emissions [MT/day]	CH ₄ IDLEX Emissions [MT/day]	N ₂ O STREX Emissions [MT/day]	N ₂ O IDLEX Emissions [MT/day]
SICOG	2016	All Other Buses	Aggregate	Aggregate	Diesel	660.43512	0	0.02614986	0	0.10386204	0	0.03%	581.41	0.02%	65.33	0.00E+00	4.31E-02	0.00E+00	2.13E-06	0.00E+00	6.79E-06
SICOG	2016	LDA	Aggregate	Aggregate	Gasoline	0	83.6876196	0	0.127450633	0	49.006	0.042776239	49.006	0.00E+00	213.53645	8.28E+01	1.29E-01	0.00E+00	0.00E+00	4.23E-02	0.00E+00
SICOG	2016	LDA	Aggregate	Aggregate	Diesel	0	0	0	0	0.22%	4,957.32	0.25%	1,087.11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0.14%	3,296.84	0.15%	648.06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LDA	Aggregate	Aggregate	Plug-in Hybrid	0	69.74879907	0	0.043173542	0	0.23%	1,244.45	0.23%	1,244.45	0.00E+00	2.22E-04	0.00E+00	2.22E-04	0.00E+00	1.13E-04	0.00E+00
SICOG	2016	LD11	Aggregate	Aggregate	Gasoline	0	106.782497	0	0.203103442	0	8.3%	98,236.21	5.17%	22,506.67	1.05E+01	0.00E+00	2.08E-02	0.00E+00	0.00E+00	3.35E-03	0.00E+00
SICOG	2016	LD11	Aggregate	Aggregate	Diesel	0	0	0	0	0.03%	127.63	0.03%	36.80	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SICOG	2016	LD11	Aggregate	Aggregate	Electricity	0	0	0	0	0.00%	33.61	0.00%	7.39	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LD12	Aggregate	Aggregate	Gasoline	0	112.169714	0	0.165293189	0	14.13%	321,665.77	16.17%	70,767.13	3.61E+01	0.00E+00	5.24E-02	0.00E+00	0.00E+00	1.96E-02	0.00E+00
SICOG	2016	LD12	Aggregate	Aggregate	Diesel	0	0	0	0	0.03%	598.27	0.03%	175.77	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SICOG	2016	LD12	Aggregate	Aggregate	Electricity	0	0	0	0	0.00%	33.74	0.00%	7.36	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LD12	Aggregate	Aggregate	Plug-in Hybrid	0	86.37534899	0	0.043439992	0	0.02%	27.81	0.00%	6.73	2.43E-03	0.00E+00	1.21E-06	0.00E+00	0.00E+00	1.16E-07	0.00E+00
SICOG	2016	LHD1	Aggregate	Aggregate	Gasoline	125.087208	24.58791950	0.12038938	0.00779149	0.002853567	0.048664195	3.30%	120,676.69	1.86%	8,099.92	3.97E+00	1.01E+00	5.77E-03	9.75E-04	5.99E-03	2.31E-01
SICOG	2016	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0	0.02%	172.15	0.02%	51.85	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	LHD2	Aggregate	Aggregate	Gasoline	144.2107723	26.89220827	0.123263154	0.043173547	0.002784875	0.051946839	0.64%	14,570.15	0.22%	977.96	3.97E-01	1.43E-01	6.37E-04	1.21E-04	2.57E-04	2.88E-06
SICOG	2016	LHD2	Aggregate	Aggregate	Diesel	0	0	0	0	0.30%	29,572.57	0.54%	2,351.00	0.00E+00	5.35E-01	1.00E+00	1.20E-05	0.00E+00	0.00E+00	8.41E-01	0.00E+00
SICOG	2016	MCV	Aggregate	Aggregate	Gasoline	0	63.88032723	0	0.247115893	0	1.02%	21,180.37	2.66%	11,590.19	1.47E+00	0.00E+00	5.78E-01	0.00E+00	2.87E-04	0.00E+00	0.00E+00
SICOG	2016	MDV	Aggregate	Aggregate	Gasoline	0	131.4587019	0	0.216381964	0	15.26%	347,384.51	17.61%	76,448.82	4.57E+01	0.00E+00	7.52E-02	0.00E+00	2.43E-02	0.00E+00	0.00E+00
SICOG	2016	MDV	Aggregate	Aggregate	Diesel	0	0	0	0	0.19%	4,250.60	0.20%	862.20	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SICOG	2016	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0.00%	4.02	0.00%	0.92	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	MDV	Aggregate	Aggregate	Plug-in Hybrid	0	104.4691523	0	0.043367047	0	0.02%	200.69	0.01%	132.70	0.01%	1.99E-02	0.00E+00	5.75E-06	0.00E+00	2.92E-06	0.00E+00
SICOG	2016	MH	Aggregate	Aggregate	Gasoline	0	34.2309768	0	0.046795681	0	0.01%	184.04	0.01%	0.023198169	184.04	0.00E+00	6.35E-03	0.00E+00	8.61E-06	0.00E+00	6.11E-06
SICOG	2016	MH	Aggregate	Aggregate	Diesel	0	0	0	0	0.00%	55.66	0.00%	13.72	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	Motor Coach	Aggregate	Aggregate	Diesel	11546.02881	0	0.408749443	0	1.815763596	0	0.02%	403.69	0.00%	17.57	0.00E+00	2.03E-01	0.00E+00	7.18E-06	0.00E+00	3.19E-05
SICOG	2016	OBUS	Aggregate	Aggregate	Gasoline	392.1302270	35.8004664	0.184689291	0.046757993	0.004566861	0.02994406	0.7%	3,831.31	0.04%	191.49	1.38E-01	7.51E-02	1.76E-04	3.54E-05	1.15E-04	8.75E-07
SICOG	2016	PTD	Aggregate	Aggregate	Diesel	0	0	0	0	0.00%	0	0.00%	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2016	SBUS	Aggregate	Aggregate	Gasoline	2721.303364	71.47023417	2.17876323	0.155650311	0.068316775	0.04924344	0.01%	148.79	0.01%	37.20	1.06E-02	1.01E-01	2.32E-05	8.10E-05	7.33E-06	2.54E-06
SICOG	2016	SBUS	Aggregate	Aggregate	Diesel	2362.323663	0	0.00973166	0	0.371506289	0	0.32%	7,243.98	0.11%	500.27	0.00E+00	1.18E+00	0.00E+00	4.79E-06	0.00E+00	1.86E-04
SICOG	2016	SBUS	Aggregate	Aggregate	Natural Gas	4666.534644	0	16.2728889	0	0.828296869	0	0.03%	775.57	0.00%	53.63	0.00E+00	2.18E-01	0.00E+00	7.00E-04	4.45E-05	0.00E+00
SICOG	2016	16 CAIRP Class 4	Aggregate	Aggregate	Diesel	687.0538768	0	0.006688211	0	0.108048182	0	0.01%	174.87	0.00%	7.61	0.00E+00	5.23E-03	0.00E+00	5.09E-08	0.00E+00	8.22E-07
SICOG	2016	16 CAIRP Class 5	Aggregate	Aggregate	Diesel	687.0538769	0	0.006688211	0	0.108048182	0	0.01%	226.66	0.00%	9.86	0.00E+00	6.78E-03	0.00E+00	6.60E-08	0.00E+00	1.07E-06
SICOG	2016	16 CAIRP Class 6	Aggregate	Aggregate	Diesel	687.0538768	0	0.006688211	0	0.108048182	0	0.01%	385.97	0.00%	17.56	0.00E+00	1.75E-02	0.00E+00	1.71E-07	0.00E+00	2.76E-06
SICOG	2016	16 CAIRP Class 7	Aggregate	Aggregate	Diesel	675.2704127	0	0.007137062	0	0.106195078	0	0.08%	1,912.15	0.02%	83.21	0.00E+00	5.69E-02	0.00E+00	5.00E-07	0.00E+00	8.84E-06
SICOG	2016	16 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	2296.279148	0	0.045381736	0	0.161119683	0	0.17%	8,849.13	0.06%	269.74	0.00E+00	6.19E-01	0.00E+00	1.22E-05	0.00E+00	9.74E-05
SICOG	2016	16 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	2296.279148	0	0.045381736	0	0.161119683	0	0.12%	2,812.35	0.05%	197.08	0.00E+00	4.53E-01	0.00E+00	8.94E-06	0.00E+00	7.12E-05
SICOG	2016	16 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	2296.279148	0	0.045381736	0	0.161119683	0	0.42%	9,519.37	0.15%	667.09	0.00E+00	1.53E+00	0.00E+00	3.03E-05	0.00E+00	2.41E-04
SICOG	2016	16 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	2294.983156	0	0.05014704	0	0.186913469	0	0.18%	4,193.18	0.07%	289.71	0.00E+00	6.74E-01	0.00E+00	1.49E-05	0.00E+00	1.06E-04
SICOG	2016	16 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	3887.144155	0	16.20015147	0	0.792466916	0	0.00%	0.25	0.00%	0.02	0.00E+00	6.67E-05	0.00E+00	2.78E-07	0.00E+00	1.36E-08
SICOG	2016	16 Instate Other Class 4	Aggregate	Aggregate	Diesel	2467.189675	0	0.049376373	0	0.38799775	0	0.27%	6,232.31	0.12%	539.13	0.00E+00	2.18E+00	0.00E+00	2.66E-05	0.00E+00	2.09E-04
SICOG	2016	16 Instate Other Class 5	Aggregate	Aggregate	Diesel	2467.787489	0	0.049073587	0	0.389991764	0	0.44%	9,923.72	0.20%	838.45	0.00E+00	2.12E+00	0.00E+00	4.21E-05	0.00E+00	3.33E-04
SICOG	2016	16 Instate Other Class 6	Aggregate	Aggregate	Diesel	2465.454435	0	0.05054747	0	0.387720518	0	0.43%	9,835.18	0.20%	850.79	0.00E+00	2.10E+00	0.00E+00	4.28E-05	0.00E+00	3.39E-04
SICOG	2016	16 Instate Other Class 7	Aggregate	Aggregate	Diesel	2463.358071	0	0.056590559	0	0.387395518	0	0.48%	10,936.51	0.22%	846.07	0.00E+00	2.33E+00	0.00E+00	5.35E-05	0.00E+00	3.67E-04
SICOG	2016	16 Instate Other Class 7	Aggregate	Aggregate	Natural Gas	4178.66285	0	17.41420195	0	0.851847758	0	0.00%	0.62	0.00%	0.05	0.00E+00	2.25E-04	0.00E+00	9.37E-07	0.00E+00	4.58E-08
SICOG	2016	16 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	2462.279963	0	0.052463073	0	0.387236638	0	0.00%	111.87	0.00%	9.68	0.00E+00	2.38E-02	0.00E+00	5.02E-07	0.00E+00	3.76E-06
SICOG	2016	16 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	2461.412444	0	0.057147975	0	0.38708922	0	0.26%	5,995.55	0.12%	518.65	0.00E+00	1.28E+00	0.00E+00	2.96E-05	0.00E+00	2.01E-04
SICOG	2016	16 Instate Tractor Class 7	Aggregate	Aggregate	Natural Gas	4178.66285	0	17.41420195	0	0.851847758	0	0.00%	0.33	0.00%</							

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: MPO

Region: SJCOG

Calendar Year: 2046

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Fleet Mix (Population)	VMT	Fleet Mix (VMT)	Trips	Fleet Mix (Trips)
SJCOG	2046	All Other Buses	Aggregate	Aggregate	Diesel	90.81477473	0.01%	4043.601801	0.01%	808.2514951	0.02%
SJCOG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	7.090857819	0.00%	297.5758322	0.00%	63.10863459	0.00%
SJCOG	2046	LDA	Aggregate	Aggregate	Gasoline	286532.7909	41.52%	11274357.16	41.45%	1322687.54	36.86%
SJCOG	2046	LDA	Aggregate	Aggregate	Diesel	184.8109957	0.03%	6572.028666	0.02%	822.0372827	0.02%
SJCOG	2046	LDA	Aggregate	Aggregate	Electricity	39034.6347	5.66%	1468923.127	5.40%	182226.5558	5.08%
SJCOG	2046	LDA	Aggregate	Aggregate	Plug-in Hyb	13462.5408	1.95%	532153.1043	1.96%	55667.60623	1.55%
SJCOG	2046	LDT1	Aggregate	Aggregate	Gasoline	18551.31407	2.69%	667608.4113	2.45%	83592.51067	2.33%
SJCOG	2046	LDT1	Aggregate	Aggregate	Diesel	0.208701503	0.00%	7.907281359	0.00%	0.962223893	0.00%
SJCOG	2046	LDT1	Aggregate	Aggregate	Electricity	535.7018807	0.08%	20330.37118	0.07%	2509.004559	0.07%
SJCOG	2046	LDT1	Aggregate	Aggregate	Plug-in Hyb	411.5528799	0.06%	16158.04305	0.06%	1701.771159	0.05%
SJCOG	2046	LDT2	Aggregate	Aggregate	Gasoline	156798.3121	22.72%	5903011.656	21.70%	719213.528	20.04%
SJCOG	2046	LDT2	Aggregate	Aggregate	Diesel	591.6603512	0.09%	22518.19929	0.08%	2728.562708	0.08%
SJCOG	2046	LDT2	Aggregate	Aggregate	Electricity	6122.088538	0.89%	160554.4421	0.59%	28657.65056	0.80%
SJCOG	2046	LDT2	Aggregate	Aggregate	Plug-in Hyb	4216.316495	0.61%	162296.9788	0.60%	17434.46871	0.49%
SJCOG	2046	LHD1	Aggregate	Aggregate	Gasoline	5912.797166	0.86%	197922.584	0.73%	88091.8677	2.46%
SJCOG	2046	LHD1	Aggregate	Aggregate	Diesel	3881.583424	0.56%	122657.7199	0.45%	48825.43644	1.36%
SJCOG	2046	LHD1	Aggregate	Aggregate	Electricity	6197.800296	0.90%	259481.945	0.95%	87212.46534	2.43%
SJCOG	2046	LHD2	Aggregate	Aggregate	Gasoline	622.109093	0.09%	20509.84666	0.08%	9268.498543	0.26%
SJCOG	2046	LHD2	Aggregate	Aggregate	Diesel	1931.689394	0.28%	58232.74214	0.21%	24298.22251	0.68%
SJCOG	2046	LHD2	Aggregate	Aggregate	Electricity	1442.519696	0.21%	58990.97841	0.22%	19089.9362	0.53%
SJCOG	2046	MCY	Aggregate	Aggregate	Gasoline	12065.7259	1.75%	63095.31945	0.23%	24131.45181	0.67%
SJCOG	2046	MDV	Aggregate	Aggregate	Gasoline	93408.11546	13.53%	3263239.219	12.00%	423148.8177	11.79%
SJCOG	2046	MDV	Aggregate	Aggregate	Diesel	1044.900216	0.15%	35735.03962	0.13%	4698.533817	0.13%
SJCOG	2046	MDV	Aggregate	Aggregate	Electricity	5676.406922	0.82%	147142.0992	0.54%	26462.08235	0.74%
SJCOG	2046	MDV	Aggregate	Aggregate	Plug-in Hyb	2696.688651	0.39%	97889.18229	0.36%	11150.80757	0.31%
SJCOG	2046	MH	Aggregate	Aggregate	Gasoline	697.2375547	0.10%	7193.69432	0.03%	69.75164497	0.00%
SJCOG	2046	MH	Aggregate	Aggregate	Diesel	463.4076195	0.07%	4130.104457	0.02%	46.34076195	0.00%
SJCOG	2046	Motor Coach	Aggregate	Aggregate	Diesel	22.23670087	0.00%	2821.868368	0.01%	510.9993859	0.01%
SJCOG	2046	OBUS	Aggregate	Aggregate	Gasoline	79.91687087	0.01%	2816.14532	0.01%	1598.976752	0.04%
SJCOG	2046	OBUS	Aggregate	Aggregate	Electricity	49.15707398	0.01%	3369.571563	0.01%	983.5347362	0.03%
SJCOG	2046	PTO	Aggregate	Aggregate	Diesel	0	0.00%	14958.96735	0.05%	0	0.00%
SJCOG	2046	PTO	Aggregate	Aggregate	Electricity	0	0.00%	14892.47381	0.05%	0	0.00%
SJCOG	2046	SBUS	Aggregate	Aggregate	Gasoline	98.84520282	0.01%	5248.227792	0.02%	395.3808113	0.01%
SJCOG	2046	SBUS	Aggregate	Aggregate	Diesel	248.1531863	0.04%	5226.568204	0.02%	3593.258137	0.10%
SJCOG	2046	SBUS	Aggregate	Aggregate	Electricity	282.6773757	0.04%	7923.927246	0.03%	3774.26029	0.11%
SJCOG	2046	SBUS	Aggregate	Aggregate	Natural Gas	82.69222068	0.01%	1701.678281	0.01%	1197.383355	0.03%
SJCOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	6.424480825	0.00%	461.953152	0.00%	147.6345693	0.00%
SJCOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	8.770160597	0.00%	667.7379886	0.00%	201.5382905	0.01%
SJCOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	7.896321353	0.00%	634.6179463	0.00%	181.4574647	0.01%
SJCOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	10.74408818	0.00%	915.1151536	0.00%	246.8991464	0.01%
SJCOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	35.84269245	0.01%	1651.926359	0.01%	823.6650724	0.02%
SJCOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	49.24406089	0.01%	2397.570569	0.01%	1131.628519	0.03%
SJCOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	95.16572496	0.01%	19252.49208	0.07%	2186.90836	0.06%
SJCOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	29.27408702	0.00%	6147.999483	0.02%	672.7185198	0.02%
SJCOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	193.9236874	0.03%	6394.782412	0.02%	2767.291019	0.08%
SJCOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	205.7816949	0.03%	7256.214177	0.03%	2936.504786	0.08%
SJCOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	126.2770653	0.02%	4163.868916	0.02%	1801.973723	0.05%
SJCOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	133.6274202	0.02%	4715.434921	0.02%	1906.863287	0.05%
SJCOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	547.9266998	0.08%	18066.38116	0.07%	7818.914006	0.22%
SJCOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	580.2773921	0.08%	20468.00592	0.08%	8280.558386	0.23%
SJCOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	136.2407663	0.02%	6904.107439	0.03%	1944.155735	0.05%
SJCOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	82.41890576	0.01%	4430.065663	0.02%	1176.117785	0.03%
SJCOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	4.876209154	0.00%	240.9886564	0.00%	69.58350463	0.00%
SJCOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	356.4518153	0.05%	13815.15897	0.05%	4120.582985	0.11%
SJCOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	377.2118407	0.05%	16523.80333	0.06%	4360.568878	0.12%

SCENARIO	SICOG 2046 RTP/SCS - RUNEX
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Source	EMFAC2021 (v1.0.2) Emission Rates
Region Type	MPO
Region	SICOG
Calendar Year	2046
Season	Annual
Vehicle Classification	EMFAC202X Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip

Daily VMT	23,495,442
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ RUNEX	CH ₄ RUNEX	N ₂ O RUNEX	Fleet Mix	VMT per Day	CO ₂ RUNEX Emissions (tons/day)	CH ₄ RUNEX Emissions (tons/day)	N ₂ O RUNEX Emissions (tons/day)
SICOG	2046	All Other Buses	Aggregate	Aggregate	Diesel	1038.084573	0.00203365	0.163550647	0.01%	3,492.65	3.63E+00	7.10E-06	5.71E-04
SICOG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	909.8882056	0.857361068	0.185486663	0.00%	257.03	2.34E-01	2.20E-04	4.77E-05
SICOG	2046	LDA	Aggregate	Aggregate	Gasoline	228.8750323	0.001111171	0.003308407	41.45%	9,738,197.68	2.23E+03	1.08E-02	3.22E-02
SICOG	2046	LDA	Aggregate	Aggregate	Diesel	182.6673843	0.000288849	0.028779321	0.02%	5,676.57	1.04E+00	1.64E-06	1.63E-04
SICOG	2046	LDA	Aggregate	Aggregate	Electricity	0	0	0	5.40%	1,268,778.66	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Plug-in Hybrid	124.5669062	0.000425133	0.000495386	1.96%	459,645.91	5.73E+01	1.95E-04	2.28E-04
SICOG	2046	LDT1	Aggregate	Aggregate	Gasoline	264.2279019	0.001182371	0.00341225	2.45%	576,645.09	1.52E+02	6.82E-04	1.97E-03
SICOG	2046	LDT1	Aggregate	Aggregate	Diesel	341.0539736	0.000834156	0.053733192	0.00%	6.83	2.33E-03	5.70E-09	3.67E-07
SICOG	2046	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0.07%	17,560.31	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDT1	Aggregate	Aggregate	Plug-in Hybrid	124.2263028	0.000423097	0.00049202	0.06%	13,956.47	1.73E+00	5.90E-06	6.87E-06
SICOG	2046	LDT2	Aggregate	Aggregate	Gasoline	274.160281	0.001469529	0.003518728	21.70%	5,098,711.49	1.40E+03	7.49E-03	1.79E-02
SICOG	2046	LDT2	Aggregate	Aggregate	Diesel	252.483571	0.000832457	0.039778889	0.08%	19,450.04	4.91E+00	1.62E-05	7.74E-04
SICOG	2046	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0.59%	138,678.50	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDT2	Aggregate	Aggregate	Plug-in Hybrid	124.4394915	0.000422941	0.000490847	0.60%	140,183.61	1.74E+01	5.93E-05	6.88E-05
SICOG	2046	LHD1	Aggregate	Aggregate	Gasoline	747.8832461	0.001198497	0.001673491	0.73%	170,955.13	1.28E+02	2.05E-04	2.86E-04
SICOG	2046	LHD1	Aggregate	Aggregate	Diesel	603.0568573	0.004338534	0.095011853	0.45%	105,945.30	6.39E+01	4.60E-04	1.01E-02
SICOG	2046	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0.95%	224,126.88	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LHD2	Aggregate	Aggregate	Gasoline	842.6036056	0.001098063	0.002139618	0.08%	17,715.33	1.49E+01	1.95E-05	3.79E-05
SICOG	2046	LHD2	Aggregate	Aggregate	Diesel	706.2186156	0.005464223	0.11126503	0.21%	50,298.38	3.55E+01	2.75E-04	5.60E-03
SICOG	2046	LHD2	Aggregate	Aggregate	Electricity	0	0	0	0.22%	50,953.31	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MCY	Aggregate	Aggregate	Gasoline	188.5213727	0.144517645	0.035878114	0.23%	54,498.42	1.03E+01	7.88E-03	1.96E-03
SICOG	2046	MDV	Aggregate	Aggregate	Gasoline	332.6583179	0.001551813	0.003643339	12.00%	2,818,614.68	9.38E+02	4.37E-03	1.03E-02
SICOG	2046	MDV	Aggregate	Aggregate	Diesel	329.5542307	0.000308478	0.051921403	0.13%	30,866.05	1.02E+01	9.52E-06	1.60E-03
SICOG	2046	MDV	Aggregate	Aggregate	Electricity	0	0	0	0.54%	127,093.62	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Plug-in Hybrid	124.496848	0.000420413	0.000484887	0.36%	84,551.54	1.05E+01	3.55E-05	4.10E-05
SICOG	2046	MH	Aggregate	Aggregate	Gasoline	1947.468291	0.004058195	0.018831984	0.03%	6,213.54	1.21E+01	2.52E-05	1.17E-04
SICOG	2046	MH	Aggregate	Aggregate	Diesel	1089.291744	0.004053637	0.171618358	0.02%	3,567.37	3.89E+00	1.45E-05	6.12E-04
SICOG	2046	Motor Coach	Aggregate	Aggregate	Diesel	1528.724378	0.00048903	0.240851148	0.01%	2,437.38	3.73E+00	1.19E-06	5.87E-04
SICOG	2046	OBUS	Aggregate	Aggregate	Gasoline	1535.331791	0.004872022	0.017364528	0.01%	2,432.44	3.73E+00	1.19E-05	4.22E-05
SICOG	2046	OBUS	Aggregate	Aggregate	Electricity	0	0	0	0.01%	2,910.46	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	PTO	Aggregate	Aggregate	Diesel	1734.607319	0.000656568	0.273288089	0.05%	12,920.77	2.24E+01	8.48E-06	3.53E-03
SICOG	2046	PTO	Aggregate	Aggregate	Electricity	0	0	0	0.05%	12,863.34	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Gasoline	751.4890514	0.001926092	0.014653605	0.02%	4,533.14	3.41E+00	8.73E-06	6.64E-05
SICOG	2046	SBUS	Aggregate	Aggregate	Diesel	1032.901741	0.000336099	0.16273409	0.02%	4,514.44	4.66E+00	1.52E-06	7.35E-04
SICOG	2046	SBUS	Aggregate	Aggregate	Electricity	0	0	0	0.03%	6,844.27	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Natural Gas	1073.903131	2.312953689	0.218922178	0.01%	1,469.82	1.58E+00	3.40E-03	3.22E-04
SICOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	1014.044438	0.000246575	0.159763114	0.00%	399.01	4.05E-01	9.84E-08	6.37E-05
SICOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.00%	576.76	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	1014.352623	0.00024695	0.159811669	0.00%	548.15	5.56E-01	1.35E-07	8.76E-05
SICOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0	0	0	0.00%	790.43	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	1013.22302	0.000246119	0.159633699	0.01%	1,426.85	1.45E+00	3.51E-07	2.28E-04
SICOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0	0	0	0.01%	2,070.90	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	895.3727102	0.00026566	0.141066335	0.07%	16,629.29	1.49E+01	4.42E-06	2.35E-03
SICOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0	0	0	0.02%	5,310.32	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1044.095106	0.000279833	0.164497609	0.02%	5,523.48	5.77E+00	1.55E-06	9.09E-04
SICOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.03%	6,267.54	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1045.105798	0.000278547	0.164656844	0.02%	3,596.53	3.76E+00	1.00E-06	5.92E-04
SICOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0	0	0	0.02%	4,072.95	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1044.464168	0.000280545	0.164555755	0.07%	15,604.79	1.63E+01	4.38E-06	2.57E-03
SICOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0	0	0	0.08%	17,679.19	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	1071.693652	0.000361304	0.168845771	0.03%	5,963.41	6.39E+00	2.15E-06	1.01E-03
SICOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0	0	0	0.02%	3,826.46	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	1059.255678	0.873011689	0.215936199	0.00%	208.15	2.20E-01	1.82E-04	4.49E-05
SICOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1011.621348	0.000252467	0.159381355	0.05%	11,932.81	1.21E+01	3.01E-06	1.90E-03
SICOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.06%	14,272.39	0.00E+00	0.00E+00	0.00E+00

SCENARIO	
SICOG 2046 RTP/SCS - STREX and IDLEX	
Source	EMFAC2021 (v1.0.2) Emission Rates
Region Type	MPO
Region	SICOG
Calendar Year	2046
Season	Annual
Vehicle Classification	EMFAC2021 Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW.
Daily Trips	3,099,319
Daily Vehicles	595,927

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ IDLEX	CO ₂ STREX	CH ₄ IDLEX	CH ₄ STREX	N ₂ O IDLEX	N ₂ O STREX	Fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	Fleet Mix (by Vehicle Population)	Vehicles per Day	CO ₂ STREX Emissions (MT/day)	CO ₂ IDLEX Emissions (MT/day)	CH ₄ STREX Emissions (MT/day)	CH ₄ IDLEX Emissions (MT/day)	N ₂ O STREX Emissions (MT/day)	N ₂ O IDLEX Emissions (MT/day)
SICOG	2046	All Other Buses	Aggregate	Aggregate	Diesel	542.1735073	0	0.002465424	0	0.085419657	0	0.02%	698.13	0.01%	78.41	0.00E+00	4.25E-02	0.00E+00	1.93E-07	0.00E+00	6.70E-06
SICOG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	1164.098467	0	3.418630584	0	0.237309088	0	0.00%	54.51	0.00%	6.12	0.00E+00	7.13E-03	0.00E+00	2.09E-05	0.00E+00	1.45E-06
SICOG	2046	LDA	Aggregate	Aggregate	Gasoline	0	53.64868814	0	0.032118364	0	0.025846728	36.86%	1,142,467.79	41.52%	247,402.40	6.13E+01	0.00E+00	3.67E-02	0.00E+00	2.95E-02	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.02%	710.03	0.03%	159.57	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	5.08%	157,397.70	5.66%	33,703.86	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Plug-in Hybrid	0	55.58388033	0	0.04001405	0	0.018863459	1.55%	48,082.74	1.95%	11,624.03	2.67E+00	0.00E+00	1.92E-03	0.00E+00	9.07E-04	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Gasoline	0	62.57996998	0	0.034290615	0	0.027150962	2.33%	72,202.81	2.69%	16,017.85	4.52E+00	0.00E+00	2.48E-03	0.00E+00	1.96E-03	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	0.83	0.00%	0.18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.07%	2,167.15	0.08%	462.54	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Plug-in Hybrid	0	63.5825659	0	0.040009783	0	0.018857271	0.05%	1,469.90	0.06%	355.35	9.35E-02	0.00E+00	5.88E-05	0.00E+00	2.77E-05	0.00E+00
SICOG	2046	LD2	Aggregate	Aggregate	Gasoline	0	65.78996704	0	0.041285813	0	0.030714052	20.04%	621,218.74	22.72%	135,385.13	4.09E+01	0.00E+00	2.56E-02	0.00E+00	1.91E-02	0.00E+00
SICOG	2046	LD2	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.08%	2,356.79	0.09%	510.86	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.80%	24,752.97	0.89%	5,286.02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD2	Aggregate	Aggregate	Plug-in Hybrid	0	66.86008497	0	0.039916473	0	0.018770668	0.49%	15,058.98	0.61%	3,640.51	2.01E+00	0.00E+00	4.01E-04	0.00E+00	2.83E-04	0.00E+00
SICOG	2046	LHD1	Aggregate	Aggregate	Gasoline	107.5255318	23.63340716	0.083276907	0.019575603	0.002421507	0.038709334	2.46%	76,089.11	0.86%	5,105.32	1.80E+00	5.49E-01	1.49E-03	4.25E-04	2.95E-03	1.24E-03
SICOG	2046	LHD1	Aggregate	Aggregate	Diesel	117.875715	0	0.005098128	0	0.018571367	0	1.36%	42,172.84	0.56%	3,351.49	0.00E+00	3.95E-01	0.00E+00	1.71E-05	0.00E+00	6.22E-05
SICOG	2046	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	2.43%	75,329.53	0.90%	5,351.40	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LHD2	Aggregate	Aggregate	Gasoline	123.9701391	23.28241304	0.073989608	0.017275996	0.002161247	0.034505216	0.26%	8,005.64	0.09%	537.15	1.86E-01	6.68E-02	1.38E-04	3.97E-05	2.76E-04	1.16E-06
SICOG	2046	LHD2	Aggregate	Aggregate	Diesel	192.8692032	0	0.005098128	0	0.030986621	0	0.68%	20,987.52	0.28%	1,667.89	0.00E+00	3.22E-01	0.00E+00	8.50E-06	0.00E+00	5.07E-05
SICOG	2046	LHD2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.53%	16,488.88	0.21%	1,245.52	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MCV	Aggregate	Aggregate	Gasoline	0	37.21074006	0	0.13048703	0	0.004518799	0.67%	20,843.48	1.75%	10,417.97	7.76E-01	0.00E+00	2.72E-03	0.00E+00	9.42E-05	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Gasoline	0	80.63870493	0	0.043929627	0	0.03179331	11.79%	365,493.65	13.53%	80,651.82	2.95E+01	0.00E+00	1.61E-02	0.00E+00	1.16E-02	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.13%	4,058.35	0.15%	802.20	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.74%	22,856.55	0.82%	4,901.21	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Plug-in Hybrid	0	81.42192473	0	0.039601455	0	0.01847911	0.31%	9,631.48	0.39%	2,328.41	7.84E-01	0.00E+00	3.81E-04	0.00E+00	1.78E-04	0.00E+00
SICOG	2046	MH	Aggregate	Aggregate	Gasoline	0	29.99876819	0	0.032378895	0	0.044540242	0.00%	60.25	0.10%	602.02	1.81E-03	0.00E+00	1.95E-06	0.00E+00	2.68E-06	0.00E+00
SICOG	2046	MH	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	40.03	0.07%	400.12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	Motor Coach	Aggregate	Aggregate	Diesel	8334.136335	0	0.185553219	0	1.313046574	0	0.01%	441.37	0.00%	19.20	0.00E+00	1.60E-01	0.00E+00	3.56E-06	0.00E+00	2.52E-05
SICOG	2046	ORBUS	Aggregate	Aggregate	Gasoline	348.1765903	27.99034511	0.191201835	0.031219987	0.003822927	0.025333207	0.04%	1,381.11	0.01%	69.00	3.87E-01	2.40E-02	4.31E-05	1.32E-05	3.50E-05	2.64E-07
SICOG	2046	ORBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.03%	849.53	0.01%	42.44	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	PTO	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	PTO	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Gasoline	2418.960372	51.75760849	2.520359109	0.07003516	0.074526685	0.083497417	0.01%	341.51	0.01%	85.35	1.77E-02	2.08E-01	2.39E-05	2.15E-04	2.85E-05	6.36E-06
SICOG	2046	SBUS	Aggregate	Aggregate	Diesel	1852.134074	0	0.007765232	0	0.291804478	0	0.10%	3,103.67	0.04%	214.26	0.00E+00	3.07E-01	0.00E+00	1.65E-06	0.00E+00	6.23E-05
SICOG	2046	SBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.11%	3,260.01	0.04%	244.07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Natural Gas	4312.463409	0	12.03381943	0	0.879123877	0	0.03%	1,034.24	0.01%	71.40	0.00E+00	3.08E-01	0.00E+00	8.59E-04	0.00E+00	6.28E-05
SICOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	512.8588831	0	0.002291385	0	0.080801126	0	0.00%	127.52	0.00%	5.55	0.00E+00	0.00E+00	1.27E-08	0.00E+00	4.48E-07	0.00E+00
SICOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.01%	174.08	0.00%	7.57	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	513.1773188	0	0.002291414	0	0.080851286	0	0.01%	156.73	0.00%	6.82	0.00E+00	3.50E-03	0.00E+00	1.50E-08	0.00E+00	5.51E-07
SICOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.01%	213.26	0.00%	9.28	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	512.2101537	0	0.002291356	0	0.080698918	0	0.02%	711.44	0.01%	30.95	0.00E+00	1.59E-02	0.00E+00	7.09E-08	0.00E+00	2.50E-06
SICOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.03%	977.44	0.01%	42.52	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	501.4463906	0	0.002291359	0	0.079003083	0	0.06%	1,888.94	0.01%	82.17	0.00E+00	4.12E-02	0.00E+00	1.88E-07	0.00E+00	6.49E-06
SICOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.02%	581.06	0.00%	25.28	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1753.740487	0	0.007729557	0	0.276302528	0	0.08%	2,930.24	0.08%	167.44	0.00E+00	0.00E+00	0.00E+00	1.29E-06	0.00E+00	4.63E-05
SICOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.08%	2,536.40	0.03%	177.68	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1754.176942	0	0.007729104	0	0.276371292	0	0.05%	1,556.45	0.02%	109.03	0.00E+00	1.91E-01	0.00E+00	8.43E-07	0.00E+00	3.01E-05
SICOG	2046	T6 Instate Delivery Class 5																			

SCENARIO	SICOG 2046 RTP/SCS No Build - RUNEX
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Source	EMFAC2021 (v1.0.2) Emission Rates
Region Type	MPO
Region	SICOG
Calendar Year	2046
Season	Annual
Vehicle Classification	EMFAC202X Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip

Daily VMT	23,220,752
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ RUNEX	CH ₄ RUNEX	N ₂ O RUNEX	Fleet Mix	VMT per Day	CO ₂ RUNEX Emissions (tons/day)	CH ₄ RUNEX Emissions (tons/day)	N ₂ O RUNEX Emissions (tons/day)
SICOG	2046	All Other Buses	Aggregate	Aggregate	Diesel	1038.084573	0.00203365	0.163550647	0.01%	3,451.82	3.58E+00	7.02E-06	5.65E-04
SICOG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	909.8882056	0.857361068	0.185486663	0.00%	254.03	2.31E-01	2.18E-04	4.71E-05
SICOG	2046	LDA	Aggregate	Aggregate	Gasoline	228.8750323	0.001111171	0.003308407	41.45%	9,624,346.43	2.20E+03	1.07E-02	3.18E-02
SICOG	2046	LDA	Aggregate	Aggregate	Diesel	182.6673843	0.000288849	0.028779321	0.02%	5,610.21	1.02E+00	1.62E-06	1.61E-04
SICOG	2046	LDA	Aggregate	Aggregate	Electricity	0	0	0	5.40%	1,253,945.11	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Plug-in Hybrid	124.5669062	0.000425133	0.000495386	1.96%	454,272.09	5.66E+01	1.93E-04	2.25E-04
SICOG	2046	LDT1	Aggregate	Aggregate	Gasoline	264.2279019	0.001182371	0.00341225	2.45%	569,903.41	1.51E+02	6.74E-04	1.94E-03
SICOG	2046	LDT1	Aggregate	Aggregate	Diesel	341.0539736	0.000834156	0.053733192	0.00%	6.75	2.30E-03	5.63E-09	3.63E-07
SICOG	2046	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0.07%	17,355.01	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDT1	Aggregate	Aggregate	Plug-in Hybrid	124.2263028	0.000423097	0.00049202	0.06%	13,793.30	1.71E+00	5.84E-06	6.79E-06
SICOG	2046	LDT2	Aggregate	Aggregate	Gasoline	274.160281	0.001469529	0.003518728	21.70%	5,039,101.42	1.38E+03	7.41E-03	1.77E-02
SICOG	2046	LDT2	Aggregate	Aggregate	Diesel	252.483571	0.000832457	0.039778889	0.08%	19,222.64	4.85E+00	1.60E-05	7.65E-04
SICOG	2046	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0.59%	137,057.18	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDT2	Aggregate	Aggregate	Plug-in Hybrid	124.4394915	0.000422941	0.000490847	0.60%	138,544.69	1.72E+01	5.86E-05	6.80E-05
SICOG	2046	LHD1	Aggregate	Aggregate	Gasoline	747.8832461	0.001198497	0.001673491	0.73%	168,956.46	1.26E+02	2.02E-04	2.83E-04
SICOG	2046	LHD1	Aggregate	Aggregate	Diesel	603.0568573	0.004338534	0.095011853	0.45%	104,706.67	6.31E+01	4.54E-04	9.95E-03
SICOG	2046	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0.95%	221,506.57	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LHD2	Aggregate	Aggregate	Gasoline	842.6036056	0.001098063	0.002139618	0.08%	17,508.22	1.48E+01	1.92E-05	3.75E-05
SICOG	2046	LHD2	Aggregate	Aggregate	Diesel	706.2186156	0.005464223	0.11126503	0.21%	49,710.34	3.51E+01	2.72E-04	5.53E-03
SICOG	2046	LHD2	Aggregate	Aggregate	Electricity	0	0	0	0.22%	50,357.60	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MCY	Aggregate	Aggregate	Gasoline	188.5213727	0.144517645	0.035878114	0.23%	53,861.27	1.02E+01	7.78E-03	1.93E-03
SICOG	2046	MDV	Aggregate	Aggregate	Gasoline	332.6583179	0.001551813	0.003643339	12.00%	2,785,661.68	9.27E+02	4.32E-03	1.01E-02
SICOG	2046	MDV	Aggregate	Aggregate	Diesel	329.5542307	0.000308478	0.051921403	0.13%	30,505.19	1.01E+01	9.41E-06	1.58E-03
SICOG	2046	MDV	Aggregate	Aggregate	Electricity	0	0	0	0.54%	125,607.74	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Plug-in Hybrid	124.496848	0.000420413	0.000484887	0.36%	83,563.03	1.04E+01	3.51E-05	4.05E-05
SICOG	2046	MH	Aggregate	Aggregate	Gasoline	1947.468291	0.004058195	0.018831984	0.03%	6,140.89	1.20E+01	2.49E-05	1.16E-04
SICOG	2046	MH	Aggregate	Aggregate	Diesel	1089.291744	0.004053637	0.171618358	0.02%	3,525.66	3.84E+00	1.43E-05	6.05E-04
SICOG	2046	Motor Coach	Aggregate	Aggregate	Diesel	1528.724378	0.00048903	0.240851148	0.01%	2,408.89	3.68E+00	1.18E-06	5.80E-04
SICOG	2046	OBUS	Aggregate	Aggregate	Gasoline	1535.331791	0.004872022	0.017364528	0.01%	2,404.00	3.69E+00	1.17E-05	4.17E-05
SICOG	2046	OBUS	Aggregate	Aggregate	Electricity	0	0	0	0.01%	2,876.43	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	PTO	Aggregate	Aggregate	Diesel	1734.607319	0.000656568	0.273288089	0.05%	12,769.71	2.22E+01	8.38E-06	3.49E-03
SICOG	2046	PTO	Aggregate	Aggregate	Electricity	0	0	0	0.05%	12,712.95	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Gasoline	751.4890514	0.001926092	0.014653605	0.02%	4,480.15	3.37E+00	8.63E-06	6.57E-05
SICOG	2046	SBUS	Aggregate	Aggregate	Diesel	1032.901741	0.000336099	0.16273409	0.02%	4,461.66	4.61E+00	1.50E-06	7.26E-04
SICOG	2046	SBUS	Aggregate	Aggregate	Electricity	0	0	0	0.03%	6,764.25	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Natural Gas	1073.903131	2.312953689	0.218922178	0.01%	1,452.64	1.56E+00	3.36E-03	3.18E-04
SICOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	1014.044438	0.000246575	0.159763114	0.00%	394.35	4.00E-01	9.72E-08	6.30E-05
SICOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.00%	570.01	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	1014.352623	0.00024695	0.159811669	0.00%	541.74	5.50E-01	1.34E-07	8.66E-05
SICOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0	0	0	0.00%	781.19	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	1013.22302	0.000246119	0.159633699	0.01%	1,410.17	1.43E+00	3.47E-07	2.25E-04
SICOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0	0	0	0.01%	2,046.68	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	895.3727102	0.00026566	0.141066335	0.07%	16,434.88	1.47E+01	4.37E-06	2.32E-03
SICOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0	0	0	0.02%	5,248.24	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1044.095106	0.000279833	0.164497609	0.02%	5,458.90	5.70E+00	1.53E-06	8.98E-04
SICOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.03%	6,194.26	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1045.105798	0.000278547	0.164656844	0.02%	3,554.48	3.71E+00	9.90E-07	5.85E-04
SICOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0	0	0	0.02%	4,025.33	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1044.464168	0.000280545	0.164555755	0.07%	15,422.35	1.61E+01	4.33E-06	2.54E-03
SICOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0	0	0	0.08%	17,472.50	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	1071.693652	0.000361304	0.168845771	0.03%	5,893.69	6.32E+00	2.13E-06	9.95E-04
SICOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0	0	0	0.02%	3,781.72	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	1059.255678	0.873011689	0.215936199	0.00%	205.72	2.18E-01	1.80E-04	4.44E-05
SICOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1011.621348	0.000252467	0.159381355	0.05%	11,793.30	1.19E+01	2.98E-06	1.88E-03
SICOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.06%	14,105.53	0.00E+00	0.00E+00	0.00E+00

SCENARIO SICOG 2046 RTP/SCS No Build - STREX and IDLEX

Source EMFAC2021 (v1.0.2) Emission Rates
 Region Type MPO
 Region SICOG
 Calendar Year 2046
 Season Annual
 Vehicle Classification EMFAC202X Categories
 Emissions Rate and Vehicle Activity Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/rip

Daily Trips 3,063,084
 Daily Vehicles 588,960

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ IDLEX	CO ₂ STREX	CH ₄ IDLEX	CH ₄ STREX	N ₂ O IDLEX	N ₂ O STREX	fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	fleet Mix (by Vehicle Population)	Vehicles per Day	CO ₂ STREX Emissions (MT/day)	CO ₂ IDLEX Emissions (MT/day)	CH ₄ STREX Emissions (MT/day)	CH ₄ IDLEX Emissions (MT/day)	N ₂ O STREX Emissions (MT/day)	N ₂ O IDLEX Emissions (MT/day)
SICOG	2046	All Other Buses	Aggregate	Aggregate	Diesel	542.1735073	0	0.002465424	0	0.085419657	0	0.02%	689.96	0.01%	77.50	0.00E+00	4.20E-02	0.00E+00	1.91E-07	0.00E+00	6.62E-06
SICOG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	1164.098467	0	3.418630584	0	0.237390988	0	0.00%	53.87	0.00%	6.05	0.00E+00	7.04E-03	0.00E+00	2.07E-05	0.00E+00	1.44E-06
SICOG	2046	LDA	Aggregate	Aggregate	Gasoline	0	0	0.032118364	0	0.025846728	0	0.00%	1,129,110.96	41.52%	244,509.97	6.06E+01	0.00E+00	3.63E-02	0.00E+00	2.92E-02	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.02%	701.73	0.03%	157.71	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	5.08%	155,557.53	5.66%	33,309.83	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LDA	Aggregate	Aggregate	Plug-in Hybrid	0	55.58388033	0	0.04001405	0	0.018862409	1.55%	47,220.60	1.55%	11,488.13	2.64E+00	0.00E+00	1.90E-03	0.00E+00	8.96E-04	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Gasoline	0	62.57696968	0	0.034290615	0	0.027159262	2.33%	71,358.67	2.69%	15,830.58	4.43E+00	0.00E+00	2.45E-03	0.00E+00	1.94E-03	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	0.82	0.00%	0.18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.07%	2,141.81	0.08%	457.14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD1	Aggregate	Aggregate	Plug-in Hybrid	0	63.58225659	0	0.040009783	0	0.018857271	0.05%	1,452.72	0.06%	351.19	9.24E-02	0.00E+00	5.81E-05	0.00E+00	2.74E-05	0.00E+00
SICOG	2046	LD7	Aggregate	Aggregate	Gasoline	0	65.78896704	0	0.041285813	0	0.030714052	20.04%	613,955.94	22.72%	133,802.31	4.04E+01	0.00E+00	2.53E-02	0.00E+00	1.89E-02	0.00E+00
SICOG	2046	LD7	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.08%	2,329.23	0.09%	504.89	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD7	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.80%	24,463.58	0.89%	5,224.22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LD7	Aggregate	Aggregate	Plug-in Hybrid	0	66.86008497	0	0.039916473	0	0.018770668	0.49%	14,882.92	0.61%	3,597.95	9.95E-01	0.00E+00	5.94E-04	0.00E+00	2.79E-04	0.00E+00
SICOG	2046	LHD1	Aggregate	Aggregate	Gasoline	107.5255318	23.63340716	0.083278907	0.019575603	0.002421507	0.038709334	2.46%	75,399.54	2.46%	5,045.63	1.78E+00	5.43E-01	1.47E-03	4.20E-04	2.91E-03	1.22E-05
SICOG	2046	LHD1	Aggregate	Aggregate	Diesel	117.875715	0	0.005098128	0	0.018571367	0	1.35%	41,679.79	0.56%	3,312.31	0.00E+00	3.90E-01	0.00E+00	1.69E-05	0.00E+00	6.15E-05
SICOG	2046	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	2.43%	74,448.84	0.90%	5,288.83	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	LHD2	Aggregate	Aggregate	Gasoline	123.9701391	23.28241304	0.073989608	0.017275996	0.002161247	0.034505216	0.26%	7,912.04	0.26%	530.87	1.84E-01	6.58E-02	1.37E-04	3.93E-05	2.70E-04	1.15E-06
SICOG	2046	LHD2	Aggregate	Aggregate	Diesel	192.8692032	0	0.005098128	0	0.030386622	0	0.68%	20,742.15	0.28%	1,648.39	0.00E+00	0.00E+00	8.40E-06	0.00E+00	5.01E-05	0.00E+00
SICOG	2046	LHD2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.53%	16,296.11	0.21%	1,230.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MCY	Aggregate	Aggregate	Gasoline	0	37.21074006	0	0.13048703	0	0.004518799	0.67%	20,599.79	1.75%	10,256.17	7.57E-01	0.00E+00	2.69E-03	0.00E+00	9.31E-05	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Gasoline	0	80.63870493	0	0.043929627	0	0.03179331	11.79%	361,220.59	13.53%	79,708.91	2.91E+01	0.00E+00	1.59E-02	0.00E+00	1.15E-02	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.13%	4,010.90	0.15%	891.66	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.74%	22,589.23	0.82%	4,844.91	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	MDV	Aggregate	Aggregate	Plug-in Hybrid	0	81.4212473	0	0.039601455	0	0.01847911	0.31%	9,518.88	0.39%	2,301.19	7.75E-01	0.00E+00	3.77E-04	0.00E+00	1.76E-04	0.00E+00
SICOG	2046	MH	Aggregate	Aggregate	Gasoline	0	29.99876819	0	0.032376895	0	0.044540242	0.00%	59.54	0.10%	594.98	1.79E-03	0.00E+00	1.93E-06	0.00E+00	2.65E-06	0.00E+00
SICOG	2046	MH	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.07%	39.56	0.07%	395.44	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	Motor Coach	Aggregate	Aggregate	Diesel	834.136335	0	0.18553219	0	1.13046574	0	0.01%	436.21	0.00%	18.98	0.00E+00	1.58E-01	0.00E+00	3.52E-06	0.00E+00	2.49E-05
SICOG	2046	OBUS	Aggregate	Aggregate	Gasoline	348.1765503	27.99034512	0.191201835	0.031219987	0.003822927	0.225333207	0.04%	3,664.96	0.11%	68.20	3.81E-02	2.37E-02	4.26E-05	1.36E-05	3.46E-05	2.61E-07
SICOG	2046	OBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.03%	839.59	0.03%	41.95	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	PTD	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	PTD	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Gasoline	2418.960372	51.75760849	2.520359109	0.07003516	0.074526685	0.083497417	0.01%	337.52	0.01%	84.35	1.75E-02	2.04E-01	2.36E-05	2.13E-04	2.83E-05	6.29E-06
SICOG	2046	SBUS	Aggregate	Aggregate	Diesel	1852.134074	0	0.007769252	0	0.291804478	0	0.10%	3,097.88	0.01%	211.76	0.00E+00	3.91E-01	0.00E+00	1.64E-06	0.00E+00	6.18E-05
SICOG	2046	SBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.11%	3,211.89	0.04%	241.22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	SBUS	Aggregate	Aggregate	Natural Gas	4312.463409	0	0.879123877	0	0.03%	1,022.15	0.01%	70.56	0.00%	3.04E-01	0.00E+00	0.00E+00	8.49E-04	0.00E+00	6.20E-05	
SICOG	2046	TC CAIRP Class 4	Aggregate	Aggregate	Diesel	512.8588831	0	0.002291385	0	0.080801126	0	0.00%	126.03	0.00%	5.48	0.00E+00	2.81E-03	0.00E+00	1.26E-08	0.00E+00	4.43E-07
SICOG	2046	TC CAIRP Class 4	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.01%	172.04	0.00%	7.48	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	TC CAIRP Class 5	Aggregate	Aggregate	Diesel	513.1773188	0	0.002291414	0	0.080851286	0	0.01%	154.80	0.00%	6.74	0.00E+00	3.46E-03	0.00E+00	1.54E-08	0.00E+00	5.45E-07
SICOG	2046	TC CAIRP Class 5	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.01%	210.77	0.00%	9.17	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	TC CAIRP Class 6	Aggregate	Aggregate	Diesel	512.2101537	0	0.002291356	0	0.080698918	0	0.02%	703.12	0.01%	30.59	0.00E+00	1.57E-02	0.00E+00	1.71E-08	0.00E+00	2.47E-06
SICOG	2046	TC CAIRP Class 6	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.03%	966.01	0.01%	42.02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	TC CAIRP Class 7	Aggregate	Aggregate	Diesel	501.4463906	0	0.002291359	0	0.079003083	0	0.06%	1,866.85	0.01%	81.21	0.00E+00	4.07E-02	0.00E+00	1.86E-07	0.00E+00	6.42E-06
SICOG	2046	TC CAIRP Class 7	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.02%	574.27	0.00%	24.98	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	TC Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1753.740487	0	0.007729557	0	0.276302528	0	0.08%	2,362.30	0.03%	165.48	0.00E+00	2.90E-01	0.00E+00	1.28E-06	0.00E+00	4.57E-05
SICOG	2046	TC Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.08%	2,506.74	0.03%	175.60	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SICOG	2046	TC Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1754.176942	0	0.007729104	0	0.276371292	0	0.05%	1,538.25	0.02%	107.76	0.00E+00	1.89E-01	0.00E+00	8.33E-07	0.00E+00	2.98E-05
SICOG	2046	TC Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.05%	1,627.29	0.02%	114.03	0.00E+00	0.00E+00				

SCENARIO	SJCOG 2046 RTP/SCS Scenario B - RUNEX
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Source	EMFAC2021 (v1.0.2) Emission Rates
Region Type	MPO
Region	SJCOG
Calendar Year	2046
Season	Annual
Vehicle Classification	EMFAC202X Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip

Daily VMT	23,397,883
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ RUNEX	CH ₄ RUNEX	N ₂ O RUNEX	Fleet Mix	VMT per Day	CO ₂ RUNEX Emissions (tons/day)	CH ₄ RUNEX Emissions (tons/day)	N ₂ O RUNEX Emissions (tons/day)
SJCOG	2046	All Other Buses	Aggregate	Aggregate	Diesel	1038.084573	0.00203365	0.163550647	0.01%	3,478.15	3.61E+00	7.07E-06	5.69E-04
SJCOG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	909.8882056	0.857361068	0.185486663	0.00%	255.96	2.33E-01	2.19E-04	4.75E-05
SJCOG	2046	LDA	Aggregate	Aggregate	Gasoline	228.8750323	0.001111171	0.003308407	41.45%	9,697,762.23	2.22E+03	1.08E-02	3.21E-02
SJCOG	2046	LDA	Aggregate	Aggregate	Diesel	182.6673843	0.000288849	0.028779321	0.02%	5,653.00	1.03E+00	1.63E-06	1.63E-04
SJCOG	2046	LDA	Aggregate	Aggregate	Electricity	0	0	0	5.40%	1,263,510.37	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	LDA	Aggregate	Aggregate	Plug-in Hybrid	124.5669062	0.000425133	0.000495386	1.96%	457,737.34	5.70E+01	1.95E-04	2.27E-04
SJCOG	2046	LDT1	Aggregate	Aggregate	Gasoline	264.2279019	0.001182371	0.00341225	2.45%	574,250.71	1.52E+02	6.79E-04	1.96E-03
SJCOG	2046	LDT1	Aggregate	Aggregate	Diesel	341.0539736	0.000834156	0.053733192	0.00%	6.80	2.32E-03	5.67E-09	3.65E-07
SJCOG	2046	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0.07%	17,487.39	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	LDT1	Aggregate	Aggregate	Plug-in Hybrid	124.2263028	0.000423097	0.00049202	0.06%	13,898.52	1.73E+00	5.88E-06	6.84E-06
SJCOG	2046	LDT2	Aggregate	Aggregate	Gasoline	274.160281	0.001469529	0.003518728	21.70%	5,077,540.35	1.39E+03	7.46E-03	1.79E-02
SJCOG	2046	LDT2	Aggregate	Aggregate	Diesel	252.483571	0.000832457	0.039778889	0.08%	19,369.28	4.89E+00	1.61E-05	7.70E-04
SJCOG	2046	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0.59%	138,102.67	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	LDT2	Aggregate	Aggregate	Plug-in Hybrid	124.4394915	0.000422941	0.000490847	0.60%	139,601.53	1.74E+01	5.90E-05	6.85E-05
SJCOG	2046	LHD1	Aggregate	Aggregate	Gasoline	747.8832461	0.001198497	0.001673491	0.73%	170,245.29	1.27E+02	2.04E-04	2.85E-04
SJCOG	2046	LHD1	Aggregate	Aggregate	Diesel	603.0568573	0.004338534	0.095011853	0.45%	105,505.39	6.36E+01	4.58E-04	1.00E-02
SJCOG	2046	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0.95%	223,196.25	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	LHD2	Aggregate	Aggregate	Gasoline	842.6036056	0.001098063	0.002139618	0.08%	17,641.77	1.49E+01	1.94E-05	3.77E-05
SJCOG	2046	LHD2	Aggregate	Aggregate	Diesel	706.2186156	0.005464223	0.11126503	0.21%	50,089.53	3.54E+01	2.74E-04	5.57E-03
SJCOG	2046	LHD2	Aggregate	Aggregate	Electricity	0	0	0	0.22%	50,741.74	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	MCY	Aggregate	Aggregate	Gasoline	188.5213727	0.144517645	0.035878114	0.23%	54,272.13	1.02E+01	7.84E-03	1.95E-03
SJCOG	2046	MDV	Aggregate	Aggregate	Gasoline	332.6583179	0.001551813	0.003643339	12.00%	2,806,911.08	9.34E+02	4.36E-03	1.02E-02
SJCOG	2046	MDV	Aggregate	Aggregate	Diesel	329.5542307	0.000308478	0.051921403	0.13%	30,737.89	1.01E+01	9.48E-06	1.60E-03
SJCOG	2046	MDV	Aggregate	Aggregate	Electricity	0	0	0	0.54%	126,565.89	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	MDV	Aggregate	Aggregate	Plug-in Hybrid	124.496848	0.000420413	0.000484887	0.36%	84,200.46	1.05E+01	3.54E-05	4.08E-05
SJCOG	2046	MH	Aggregate	Aggregate	Gasoline	1947.468291	0.004058195	0.018831984	0.03%	6,187.74	1.21E+01	2.51E-05	1.17E-04
SJCOG	2046	MH	Aggregate	Aggregate	Diesel	1089.291744	0.004053637	0.171618358	0.02%	3,552.55	3.87E+00	1.44E-05	6.10E-04
SJCOG	2046	Motor Coach	Aggregate	Aggregate	Diesel	1528.724378	0.00048903	0.240851148	0.01%	2,427.26	3.71E+00	1.19E-06	5.85E-04
SJCOG	2046	OBUS	Aggregate	Aggregate	Gasoline	1535.331791	0.004872022	0.017364528	0.01%	2,422.34	3.72E+00	1.18E-05	4.21E-05
SJCOG	2046	OBUS	Aggregate	Aggregate	Electricity	0	0	0	0.01%	2,898.37	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	PTO	Aggregate	Aggregate	Diesel	1734.607319	0.000656568	0.273288089	0.05%	12,867.12	2.23E+01	8.45E-06	3.52E-03
SJCOG	2046	PTO	Aggregate	Aggregate	Electricity	0	0	0	0.05%	12,809.93	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	SBUS	Aggregate	Aggregate	Gasoline	751.4890514	0.001926092	0.014653605	0.02%	4,514.32	3.39E+00	8.69E-06	6.62E-05
SJCOG	2046	SBUS	Aggregate	Aggregate	Diesel	1032.901741	0.000336099	0.16273409	0.02%	4,495.69	4.64E+00	1.51E-06	7.32E-04
SJCOG	2046	SBUS	Aggregate	Aggregate	Electricity	0	0	0	0.03%	6,815.85	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	SBUS	Aggregate	Aggregate	Natural Gas	1073.903131	2.312953689	0.218922178	0.01%	1,463.72	1.57E+00	3.39E-03	3.20E-04
SJCOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	1014.044438	0.000246575	0.159763114	0.00%	397.35	4.03E-01	9.80E-08	6.35E-05
SJCOG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.00%	574.36	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	1014.352623	0.00024695	0.159811669	0.00%	545.87	5.54E-01	1.35E-07	8.72E-05
SJCOG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0	0	0	0.00%	787.15	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	1013.22302	0.000246119	0.159633699	0.01%	1,420.92	1.44E+00	3.50E-07	2.27E-04
SJCOG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0	0	0	0.01%	2,062.30	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	895.3727102	0.00026566	0.141066335	0.07%	16,560.24	1.48E+01	4.40E-06	2.34E-03
SJCOG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0	0	0	0.02%	5,288.27	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1044.095106	0.000279833	0.164497609	0.02%	5,500.54	5.74E+00	1.54E-06	9.05E-04
SJCOG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.03%	6,241.51	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1045.105798	0.000278547	0.164656844	0.02%	3,581.60	3.74E+00	9.98E-07	5.90E-04
SJCOG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Electricity	0	0	0	0.02%	4,056.03	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	1044.464168	0.000280545	0.164555755	0.07%	15,540.00	1.62E+01	4.36E-06	2.56E-03
SJCOG	2046	T6 Instate Delivery Class 6	Aggregate	Aggregate	Electricity	0	0	0	0.08%	17,605.78	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	1071.693652	0.000361304	0.168845771	0.03%	5,938.64	6.36E+00	2.15E-06	1.00E-03
SJCOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Electricity	0	0	0	0.02%	3,810.57	0.00E+00	0.00E+00	0.00E+00
SJCOG	2046	T6 Instate Delivery Class 7	Aggregate	Aggregate	Natural Gas	1059.255678	0.873011689	0.215936199	0.00%	207.29	2.20E-01	1.81E-04	4.48E-05
SJCOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	1011.621348	0.000252467	0.159381355	0.05%	11,883.26	1.20E+01	3.00E-06	1.89E-03
SJCOG	2046	T6 Instate Other Class 4	Aggregate	Aggregate	Electricity	0	0	0	0.06%	14,213.13	0.00E+00	0.00E+00	0.00E+00

SCENARIO		S/COG 2046 RTP/SCS Scenario B - STREX and IDLEX	
Source	EMFAC2021 (v1.0.2) Emission Rates		
Region Type	MPO		
Region	S/COG		
Calendar Year	2046		
Season	Annual		
Vehicle Classification	EMFAC2021 Categories		
Emissions Rate and	Units: miles/day for CVMT and EVMT, trips/day for		
Vehicle Activity Units	Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for		
Daily Trips	3,086,045		
Daily Vehicles	593,453		

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO ₂ IDLEX	CO ₂ STREX	CH ₄ IDLEX	CH ₄ STREX	N ₂ O IDLEX	N ₂ O STREX	Fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	Fleet Mix (by Vehicle Population)	Vehicles per Day	CO ₂ STREX Emissions (MT/day)	CO ₂ IDLEX Emissions (MT/day)	CH ₄ STREX Emissions (MT/day)	CH ₄ IDLEX Emissions (MT/day)	N ₂ O STREX Emissions (MT/day)	N ₂ O IDLEX Emissions (MT/day)
S/COG	2046	All Other Buses	Aggregate	Aggregate	Diesel	542.1735073	0	0.002465424	0	0.085419657	0	0.02%	695.14	0.01%	78.09	0.00E+00	4.23E-02	0.00E+00	1.93E-07	0.00E+00	6.67E-06
S/COG	2046	All Other Buses	Aggregate	Aggregate	Natural Gas	1164.098467	0	3.418630584	0	0.237309088	0	0.00%	54.28	0.00%	6.10	0.00E+00	7.10E-03	0.00E+00	2.08E-05	0.00E+00	1.45E-06
S/COG	2046	LDA	Aggregate	Aggregate	Gasoline	0	53.64868814	0	0.032118364	0	0.025846728	36.86%	1,137,574.67	41.23%	246,375.14	6.10E+01	0.00E+00	3.65E-02	0.00E+00	2.94E-02	0.00E+00
S/COG	2046	LDA	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.03%	705.99	0.03%	158.91	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	5.08%	156,723.57	5.66%	33,563.92	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LDA	Aggregate	Aggregate	Plug-in Hybrid	0	55.58388033	0	0.04001405	0	0.018863459	1.55%	47,876.81	1.55%	11,575.76	2.66E+00	0.00E+00	1.92E-03	0.00E+00	9.03E-04	0.00E+00
S/COG	2046	LD1	Aggregate	Aggregate	Gasoline	0	62.57996998	0	0.034290615	0	0.027150962	2.33%	71,893.57	2.69%	15,951.34	4.50E+00	0.00E+00	2.47E-03	0.00E+00	1.95E-03	0.00E+00
S/COG	2046	LD1	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	0.83	0.00%	0.18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LD1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.07%	2,157.86	0.08%	460.62	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LD1	Aggregate	Aggregate	Plug-in Hybrid	0	63.58225659	0	0.040009783	0	0.018857271	0.95%	1,463.60	0.06%	353.87	9.31E-02	0.00E+00	5.86E-05	0.00E+00	2.76E-05	0.00E+00
S/COG	2046	LD2	Aggregate	Aggregate	Gasoline	0	65.78896704	0	0.041285813	0	0.030714052	20.04%	618,558.10	22.72%	134,822.98	4.07E+01	0.00E+00	2.55E-02	0.00E+00	1.90E-02	0.00E+00
S/COG	2046	LD2	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.08%	2,346.69	0.09%	508.74	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LD2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.80%	24,644.95	0.89%	5,264.08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LD2	Aggregate	Aggregate	Plug-in Hybrid	0	66.86008497	0	0.039916473	0	0.018770688	0.49%	14,994.48	0.61%	3,623.40	1.00E+00	0.00E+00	5.99E-04	0.00E+00	2.81E-04	0.00E+00
S/COG	2046	LHD1	Aggregate	Aggregate	Gasoline	107.5253318	23.63340716	0.083276907	0.019575603	0.002421507	0.038709334	2.46%	75,763.23	0.86%	5,084.12	1.79E+00	5.47E-01	1.48E-03	4.23E-04	2.93E-03	1.23E-05
S/COG	2046	LHD1	Aggregate	Aggregate	Diesel	117.875715	0	0.005098128	0	0.018571367	0	1.36%	41,992.22	0.56%	3,337.58	0.00E+00	3.93E-01	0.00E+00	1.70E-05	0.00E+00	6.20E-05
S/COG	2046	LHD1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	2.43%	75,006.90	0.90%	5,329.18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	LHD2	Aggregate	Aggregate	Gasoline	123.9701391	23.28241304	0.073898908	0.017275996	0.002161247	0.034505216	0.26%	7,971.35	0.09%	534.92	1.89E-01	6.63E-02	1.39E-04	3.96E-05	2.75E-04	1.18E-06
S/COG	2046	LHD2	Aggregate	Aggregate	Diesel	192.8697032	0	0.005098128	0	0.030386622	0	0.88%	20,897.64	0.28%	1,660.96	0.00E+00	3.20E-01	0.00E+00	8.47E-05	0.00E+00	5.05E-05
S/COG	2046	LHD2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.53%	16,418.26	0.21%	1,240.35	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	MCV	Aggregate	Aggregate	Gasoline	0	37.21074006	0	0.13048703	0	0.004518799	0.67%	20,754.20	1.75%	1,772.01	0.00E+00	0.00E+00	2.71E-03	0.00E+00	9.38E-05	0.00E+00
S/COG	2046	MDV	Aggregate	Aggregate	Gasoline	0	80.63870493	0	0.043929627	0	0.03179331	11.79%	363,928.26	13.33%	80,316.94	2.93E+01	0.00E+00	1.60E-02	0.00E+00	1.16E-02	0.00E+00
S/COG	2046	MDV	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.13%	4,046.96	0.15%	898.46	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.74%	22,738.66	0.82%	4,880.86	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	MDV	Aggregate	Aggregate	Plug-in Hybrid	0	81.42192473	0	0.039601455	0	0.01847911	0.31%	9,590.23	0.39%	2,318.75	7.81E-01	0.00E+00	3.80E-04	0.00E+00	1.77E-04	0.00E+00
S/COG	2046	MH	Aggregate	Aggregate	Gasoline	0	29.99876819	0	0.032376895	0	0.044540242	0.00%	59.99	0.10%	599.52	1.80E-03	0.00E+00	1.94E-06	0.00E+00	2.67E-06	0.00E+00
S/COG	2046	MH	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	39.86	0.07%	398.46	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	Motor Coach	Aggregate	Aggregate	Diesel	8334.136335	0	0.185532119	0	1.131046574	0	0.01%	439.48	0.00%	19.12	0.00E+00	1.59E-01	0.00E+00	3.55E-06	0.00E+00	2.51E-05
S/COG	2046	ORBUS	Aggregate	Aggregate	Gasoline	348.1763501	0	0.191201835	0	0.031219987	0.003823207	0.04%	11,375.20	0.11%	68.72	3.81E-02	2.39E-02	4.29E-05	1.31E-05	2.48E-05	2.63E-07
S/COG	2046	ORBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.03%	845.89	0.01%	42.27	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	PTO	Aggregate	Aggregate	Diesel	0	0	0	0	0	0	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	PTO	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	SBUS	Aggregate	Aggregate	Gasoline	2418.960372	51.75760849	2.520359109	0.07003516	0.074526685	0.083497417	0.01%	340.05	0.01%	84.99	1.76E-02	2.06E-01	2.38E-05	2.14E-04	2.84E-05	6.33E-06
S/COG	2046	SBUS	Aggregate	Aggregate	Diesel	1852.134074	0	0.007765252	0	0.291804478	0	0.10%	3,090.37	0.04%	213.37	0.00E+00	3.95E-01	0.00E+00	1.66E-05	0.00E+00	6.23E-05
S/COG	2046	SBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.11%	3,246.04	0.04%	243.06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	SBUS	Aggregate	Aggregate	Natural Gas	4312.463409	0	12.03381943	0	0.879123877	0	0.03%	1,029.81	0.01%	71.10	0.00E+00	3.07E-01	0.00E+00	8.56E-04	0.00E+00	6.25E-05
S/COG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	512.8588831	0	0.002291385	0	0.080801126	0	0.00%	126.97	0.00%	5.52	0.00E+00	2.83E-03	0.00E+00	1.27E-08	0.00E+00	4.46E-07
S/COG	2046	T6 CAIRP Class 4	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.01%	173.33	0.00%	7.54	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	513.1773188	0	0.002291414	0	0.080851296	0	0.01%	156.06	0.00%	6.79	0.00E+00	2.48E-03	0.00E+00	1.56E-08	0.00E+00	5.49E-07
S/COG	2046	T6 CAIRP Class 5	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.01%	212.35	0.00%	9.24	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	512.2101537	0	0.002291356	0	0.080698918	0	0.02%	708.39	0.01%	30.82	0.00E+00	1.58E-02	0.00E+00	7.06E-08	0.00E+00	2.49E-06
S/COG	2046	T6 CAIRP Class 6	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.03%	973.25	0.01%	42.34	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	501.4463906	0	0.002291359	0	0.079003083	0	0.06%	1,880.85	0.01%	81.83	0.00E+00	4.10E-02	0.00E+00	1.87E-07	0.00E+00	6.46E-06
S/COG	2046	T6 CAIRP Class 7	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.02%	578.57	0.00%	25.17	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	1753.740487	0	0.007729557	0	0.276302528	0	0.08%	2,380.00	0.03%	166.75	0.00E+00	2.92E-01	0.00E+00	1.29E-06	0.00E+00	4.61E-05
S/COG	2046	T6 Instate Delivery Class 4	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0.08%	2,525.53	0.03%	176.94	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S/COG	2046	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	1754.176942	0	0.007729104	0	0.276371292	0	0.05%	1,548.78	0.02%	108.58	0.00E+00	1.90E-01	0.00E+0			

San Joaquin

San Joaquin Offmodel Strategy GHG Reduction Summary

2022 RTP/SCS Scenario
CO2 Emissions

2005 (baseline)

2020

2035

6036.25

6447.53

7362.05

Enter daily LDV CO2 emissions in tons from SB375 Post-Processing File (scenario run using travel model VMT and speed distribution), Rows 18-20 of the "mpo data

Population

652339

773581

917811

Enter Total Vehicle Population

Measure/Strategy	2020 GHG Reduction (tons)	2035 GHG Reduction (tons)	Reference
Transit Improvement	0.00	0.00	CARB SB375 Guidelines, November 2019
Bike & Pedestrian	0.00	0.00	CARB SB375 Guidelines, November 2019
Bike Share	0.00	0.00	CARB SB375 Guidelines, November 2019
Telecommuting	0.00	0.00	CARB SB375 Guidelines, November 2019
Rule 9410	0.00	155.87	SIVAPCD Rule9410; http://www.valleyair.org/Programs/Rule9410TripReduction/eTRIP_main.htm
Car Sharing	0.00	0.00	CARB SB375 Guidelines, November 2019
Parking Management	0.00E+00	0.00E+00	CARB SB375 Guidelines, November 2019
Electric Vehicle Incentive	0.00E+00	0.00E+00	CARB SB375 Guidelines, November 2019
Electric Vehicle Charging	Method a 0.00	19.86	CARB SB375 Guidelines, November 2019
TSM-ITS	0.00	0.00	CARB SB375 Guidelines, November 2019
Vanpools/Calvans	0.00	36.70	CARB SB375 Guidelines or Calvans data
Total CO2 Emissions Reduction from Offmodel	0.00	212.43	
Total CO2 Emissions per Weekday	6,447.53	7,149.61	
EMFAC Adjustment	0.4%	0.6%	EMFAC Adjustment Methodology, Appendix D of the SCS Program and Evaluation Guidelines, 2019
% Total Reduction in CO2 Emissions Per Capita	-10.3%	-16.4%	

Note: cannot take credit for Telecommuting, Rule 9410 and Vanpool togs

Note: cannot take credit for Telecommuting, Rule 9410 and Vanpool togs

Note: Use CARB methodology or Calvans data directly; make sure to av

Note: Enter % adjustment from Row 20 of the CO2_Adj tab of the SB375

Notes:

1. When the SCS Quantification Methodology is submitted for CARB review, MPOs will need to provide supplemental information on their off-model strategies (e.g. policy-related documentation, funding sources, implementation timeline, project status, etc.)
2. If an MPO applies more than one strategy that share the same inputs, MPO staff should ensure those variables are consistent across strategies (e.g. "average regional HW trip lengths" variable in "Bike & Pedestrian" and "Bike Share" programs).
3. MPOs should include specific data sources in Column G for each strategy with references, as appropriate.
4. If using actual data for 2020 (e.g. HPMS, traffic counts, PeMS, etc), the impacts from offmodel strategies is likley already captured. In this case, offmodel strategy analysis for CY 2020 is not necessary (enter zeroes for all inputs).

San Joaquin

San Joaquin Offmodel Strategy GHG Reduction Summary

2022 RTP/SCS Scenario
CO2 Emissions

2005 (baseline)	2020	2046
6036.25	6447.53	7969.00

Enter daily LDV CO2 emissions in tons from SB375 Post-Processing File (scenario run using travel model VMT and speed distribution), Rows 18-20 of the "mpo data

Population

652339	773581	994257
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Enter Total Vehicle Population

Measure/Strategy	2020 GHG Reduction (tons)	2046 GHG Reduction (tons)	Reference
Transit Improvement	0.00	0.00	CARB SB375 Guidelines, November 2019
Bike & Pedestrian	0.00	0.00	CARB SB375 Guidelines, November 2019
Bike Share	0.00	0.00	CARB SB375 Guidelines, November 2019
Telecommuting	0.00	0.00	CARB SB375 Guidelines, November 2019
Rule 9410	0.00	185.79	SJVAPCD Rule9410; http://www.valleyair.org/Programs/Rule9410TripReduction/eTRIP_main.htm
Car Sharing	0.00	0.00	CARB SB375 Guidelines, November 2019
Parking Management	0.00E+00	0.00E+00	CARB SB375 Guidelines, November 2019
Electric Vehicle Incentive	0.00E+00	0.00E+00	CARB SB375 Guidelines, November 2019
Electric Vehicle Charging	Method a 0.00	39.72	CARB SB375 Guidelines, November 2019
TSM-ITS	0.00	0.00	CARB SB375 Guidelines, November 2019
Vanpools/Calvans	0.00	39.30	CARB SB375 Guidelines or Calvans data
Total CO2 Emissions Reduction from Offmodel	0.00	264.81	
Total CO2 Emissions per Weekday	6,447.53	7,704.19	
EMFAC Adjustment	0.4%	0.6%	EMFAC Adjustment Methodology, Appendix D of the SCS Program and Evaluation Guidelines, 2019
% Total Reduction in CO2 Emissions Per Capita	-10.3%	-16.8%	

Note: cannot take credit for Telecommuting, Rule 9410 and Vanpool togs

Note: cannot take credit for Telecommuting, Rule 9410 and Vanpool togs

Note: Use CARB methodology or Calvans data directly; make sure to av

Note: Enter % adjustment from Row 20 of the CO2_Adj tab of the SB375

Notes:

1. When the SCS Quantification Methodology is submitted for CARB review, MPOs will need to provide supplemental information on their off-model strategies (e.g. policy-related documentation, funding sources, implementation timeline, project status, etc.)
2. If an MPO applies more than one strategy that share the same inputs, MPO staff should ensure those variables are consistent across strategies (e.g. "average regional HW trip lengths" variable in "Bike & Pedestrian" and "Bike Share" programs).
3. MPOs should include specific data sources in Column G for each strategy with references, as appropriate.
4. If using actual data for 2020 (e.g. HPMS, traffic counts, PeMS, etc), the impacts from offmodel strategies is likley already captured. In this case, offmodel strategy analysis for CY 2020 is not necessary (enter zeroes for all inputs).

Appendix B

Special Status Species Tables

Scientific Name Common Name	Status	Habitat Requirements
Plants and Lichens		
<i>Amsinckia grandiflora</i> large-flowered fiddleneck	FE/SE G1/S1 1B.1	Cismontane woodland, Valley and foothill grassland. Annual grassland in various soils. 270-550m. Blooms (Mar)Apr-May.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	None/None G2T1/S1 1B.2	Playas, Valley and foothill grassland, Vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-60m. Blooms Mar-Jun.
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	None/None G3T2/S2 1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland. Alkaline flats and scalds in the Central Valley, sandy soils. 0-560m. Blooms Apr-Oct.
<i>Blepharizonia plumosa</i> big tarplant	None/None G1G2/S1S2 1B.1	Valley and foothill grassland. Dry hills & plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. 30-505m. Blooms Jul-Oct.
<i>Brasenia schreberi</i> watershield	None/None G5/S3 2B.3	Marshes and swamps. Aquatic known from water bodies both natural and artificial in California. 0-2200m. Blooms Jun-Sep.
<i>Calycadenia hooveri</i> Hoover's calycadenia	None/None G2/S2 1B.3	Cismontane woodland, Valley and foothill grassland. On exposed, rocky, barren soil. 65-300m. Blooms Jul-Sep.
<i>Carex comosa</i> bristly sedge	None/None G5/S2 2B.1	Coastal prairie, Marshes and swamps, Valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. - 0-625m. Blooms May-Sep.
<i>Castilleja campestris</i> var. <i>succulenta</i> succulent owl's-clover	FT/SE G4?T2T3/S2S3 1B.2	Vernal pools. Moist places, often in acidic soils. 50-750m. Blooms (Mar)Apr-May.
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	None/None G3/S3 1B.2	Pinyon and juniper woodland, Valley and foothill grassland. 80-1580m. Blooms Feb-May.
<i>Chloropyron palmatum</i> palmate-bracted bird's-beak	FE/SE G1/S1 1B.1	Chenopod scrub, Valley and foothill grassland. Usually on Pescadero silty clay which is alkaline, with <i>Distichlis</i> , <i>Frankenia</i> , etc. 5-155m. Blooms May-Oct.
<i>Cirsium crassicaule</i> slough thistle	None/None G1/S1 1B.1	Chenopod scrub, Marshes and swamps, Riparian scrub. Sloughs, riverbanks, and marshy areas. 3-100m. Blooms May-Aug.
<i>Delphinium californicum</i> ssp. <i>interius</i> Hospital Canyon larkspur	None/None G3T3/S3 1B.2	Chaparral, Cismontane woodland, Coastal scrub. In wet, boggy meadows, openings in chaparral and in canyons. 195-1095m. Blooms Apr-Jun.
<i>Delphinium recurvatum</i> recurved larkspur	None/None G2?/S2? 1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland. Alkaline 3-790m. Blooms Mar-Jun.
<i>Downingia pusilla</i> dwarf downingia	None/None GU/S2 2B.2	Valley and foothill grassland, Vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-445m. Blooms Mar-May.

<i>Eryngium pinnatisectum</i> Tuolumne button-celery	None/None G2/S2 1B.2	Cismontane woodland, Lower montane coniferous forest, Vernal pools. Volcanic soils; vernal pools and mesic sites within other natural communities. 70-915m. Blooms May-Aug.
<i>Eryngium racemosum</i> Delta button-celery	None/SE G1/S1 1B.1	Riparian scrub. Seasonally inundated floodplain on clay. 3-30m. Blooms (May)Jun-Oct.
<i>Eschscholzia rhombipetala</i> diamond-petaled California poppy	None/None G1/S1 1B.1	Valley and foothill grassland. Alkaline, clay slopes and flats. 0-975m. Blooms Mar-Apr.
<i>Extriplex joaquinana</i> San Joaquin spearscale	None/None G2/S2 1B.2	Annual herb. Blooms April through October. Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. 1-835 m.
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	None/SE G2/S2 1B.2	Marshes and swamps, Vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 10-2375m. Blooms Apr-Aug.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow	None/None G5T3/S3 1B.2	Marshes and swamps. Moist, freshwater-soaked river banks & low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0-120m. Blooms Jun-Sep.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	None/None G5T2/S2 1B.2	Marshes and swamps. In freshwater and brackish marshes. Often found with <i>Typha</i> , <i>Aster lentus</i> , <i>Rosa californica</i> , <i>Juncus</i> spp., <i>Scirpus</i> , etc. Usually on marsh and slough edges. 0-5m. Blooms May-Jul(Aug-Sep).
<i>Legenere limosa</i> legenere	None/None G2/S2 1B.1	Vernal pools. In beds of vernal pools. 1-880m. Blooms Apr-Jun.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	None/SR G2/S2 1B.1	Marshes and swamps, Riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0-10m. Blooms Apr-Nov.
<i>Limosella australis</i> Delta mudwort	None/None G4G5/S2 2B.1	Marshes and swamps, Riparian scrub. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with <i>Lilaeopsis masonii</i> . 0-3m. Blooms May-Aug.
<i>Madia radiata</i> showy golden madia	None/None G3/S3 1B.1	Cismontane woodland, Valley and foothill grassland. Mostly on adobe clay in grassland or among shrubs. 25-1215m. Blooms Mar-May.
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> shining navarretia	None/None G4T2/S2 1B.2	Cismontane woodland, Valley and foothill grassland, Vernal pools. Apparently in grassland, and not necessarily in vernal pools. 65-1000m. Blooms (Mar)Apr-Jul.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	None/None G3/S3 1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-650m. Blooms May-Oct(Nov).
<i>Scutellaria galericulata</i> marsh skullcap	None/None G5/S2 2B.2	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps. Swamps and wet places. 0-2100m. Blooms Jun-Sep.

<i>Scutellaria lateriflora</i> side-flowering skullcap	None/None G5/S2 2B.2	Marshes and swamps, Meadows and seeps. Wet meadows and marshes. In the Delta, often found on logs. 0-500m. Blooms Jul-Sep.
<i>Symphotrichum lentum</i> Suisun Marsh aster	None/None G2/S2 1B.2	Marshes and swamps. Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0-3m. Blooms (Apr)May-Nov.
<i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis	None/None G4T3/S1 2B.1	Marshes and swamps, Meadows and seeps, Riparian forest, Vernal pools. Mud flats of vernal lakes, drying river beds, alkali meadows. 5-435m. Blooms May-Sep.
<i>Trifolium hydrophilum</i> saline clover	None/None G2/S2 1B.2	Marshes and swamps, Valley and foothill grassland, Vernal pools. Mesic, alkaline sites. 0-300m. Blooms Apr-Jun.
<i>Tropidocarpum capparideum</i> caper-fruited tropidocarpum	None/None G1/S1 1B.1	Valley and foothill grassland. Alkaline clay. 1-455m. Blooms Mar-Apr.
<i>Tuctoria greenei</i> Greene's tuctoria	FE/SR G1/S1 1B.1	Vernal pools. Vernal pools in open grasslands. 30-1070m. Blooms May-Jul(Sep).
Invertebrates		
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	None/None G2/S2	This bee is oligolectic on vernal pool blennosperma. Bees nest in the uplands around vernal pools.
<i>Andrena subapasta</i> An andrenid bee	None/None G1G2/S1S2	Collects pollen primarily from <i>Arenaria californica</i> but also <i>Orthocarpus erianthus</i> & <i>Lasthenia</i> spp.
<i>Anthicus sacramento</i> Sacramento anthicid beetle	None/None G1/S1	Restricted to sand dune areas. Inhabit sand slipfaces among bamboo and willow but may not depend on presence of these plant species.
<i>Bombus crotchii</i> Crotch bumble bee	None/SCE G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .
<i>Bombus occidentalis</i> western bumble bee	None/SCE G2G3/S1	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	None/None G2/S2S3	Vernal pools in the Central Valley.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT/None G3T2/S3	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.
<i>Gonidea angulata</i> western ridged mussel	None/None G3/S1S2	Primarily creeks & rivers & less often lakes. Originally in most of state, now extirpated from Central & Southern Calif.

<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	None/None G2?/S2?	Aquatic beetle thought to be endemic to the San Francisco Bay area of California.
<i>Lepidurus packardi</i> vernal pool tadpole shrimp	FE/None G4/S3S4	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.
<i>Linderiella occidentalis</i> California linderiella	None/None G2G3/S2S3	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.
<i>Lytta moesta</i> moestan blister beetle	None/None G2/S2	Central California. Often found on flowers, and historical distribution includes Kern, Tulare, Fresno, Madera, Santa Cruz, and Stanislaus Counties.
Fish		
<i>Hypomesus transpacificus</i> Delta smelt	FT/SE G1/S1	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.
<i>Mylopharodon conocephalus</i> hardhead	None/None G3/S3 SSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.
<i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS	FT/None G5T2Q/S2	Populations in the Sacramento and San Joaquin rivers and their tributaries.
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	None/None GNR/S3 SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.
<i>Spirinchus thaleichthys</i> longfin smelt	FC/ST G5/S1	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.
Amphibians		
<i>Rana boylei</i> foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.
<i>Rana draytonii</i> California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval

		development. Must have access to estivation habitat.
<i>Spea hammondi</i> western spadefoot	None/None G2G3/S3 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
Reptiles		
<i>Anniella pulchra</i> Northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
<i>Arizona elegans occidentalis</i> California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	None/None G5T2T3/S2? SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	FT/ST G4T2/S2	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
<i>Thamnophis gigas</i> giant gartersnake	FT/ST G2/S2	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the gartersnakes in California.
Birds		
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G1G2/S1S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
<i>Aquila chrysaetos</i> golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.

<i>Ardea herodias</i> great blue heron	None/None G5/S4	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.
<i>Athene cunicularia</i> burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
<i>Buteo regalis</i> ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
<i>Buteo swainsoni</i> Swainson's hawk	None/ST G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
<i>Circus hudsonius</i> northern harrier	None/None G5/S3 SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT/SE G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.
<i>Elanus leucurus</i> white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.
<i>Eremophila alpestris actia</i> California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.
<i>Falco columbarius</i> merlin	None/None G5/S3S4 WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.
<i>Icteria virens</i> yellow-breasted chat	None/None G5/S3 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.

<i>Lanius ludovicianus</i> loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/ST G3G4T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.
<i>Melospiza melodia</i> song sparrow ("Modesto" population)	None/None G5/S3? SSC	Occupies thickets, brush, marshes, roadsides, gardens. Habitat varies over its wide range. In most areas, found in brushy fields, stream sides, shrubby marsh edges, woodland edges, hedgerows, well-vegetated gardens. Some coastal populations live in salt marshes. Nests in dense streamside brush in southwestern deserts, and in any kind of dense low cover.
<i>Pandion haliaetus</i> osprey	None/None G5/S4 WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
<i>Riparia riparia</i> bank swallow	None/ST G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
<i>Setophaga petechia</i> yellow warbler	None/None G5/S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/SE G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	None/None G5/S3 SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.
Mammals		
<i>Antrozous pallidus</i> pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must

		protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.
<i>Eumops perotis californicus</i> western mastiff bat	None/None G4G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.
<i>Neotoma fuscipes riparia</i> riparian (=San Joaquin Valley) woodrat	FE/None G5T1Q/S1 SSC	Occurs in riparian habitats along the San Joaquin, Stanislaus, and Tuolumne rivers. Builds middens out of grasses, leaves, and woody debris.
<i>Perognathus inornatus</i> San Joaquin pocket mouse	None/None G2G3/S2S3	Grassland, oak savanna and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert. Associated with fine-textured, sandy, friable soils.
<i>Puma concolor</i> Mountain lion (Southern California/Central Coast ESU)	None/SC --/--	Found across California, often in areas where deer are present. Prime habitat including foothills and mountains.
<i>Sylvilagus bachmani riparius</i> riparian brush rabbit	FE/SE G5T1/S1	Riparian areas on the San Joaquin River in northern Stanislaus County. Dense thickets of wild rose, willows, and blackberries.
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/ST G4T2/S2	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.

FT = Federally Threatened

SE = State Endangered

FC = Federal Candidate Species

ST = State Threatened

FE = Federally Endangered

SR = State Rare

FS = Federally Sensitive

SS = State Sensitive

DL = Delisted

SC = State Candidate

SSC = CDFW Species of Special Concern

FP = Fully Protected

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDDB RareFind5

CRPR (California Rare Plant Rank):

1A=Presumed Extinct in California

1B=Rare, Threatened, or Endangered in California and elsewhere

2=Rare, Threatened, or Endangered in California, but more common elsewhere

3=Need more information (a Review List)

4=Plants of Limited Distribution (a Watch List)

CRPR Threat Code Extension:

.1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2=Fairly endangered in California (20-80% occurrences threatened)

.3=Not very endangered in California (<20% of occurrences threatened)

Sources: CNDDB (CDFW, 2021a); USFWS (2021a), CDFW Special Animals List (2021). CDFW Special Plants List (2021) and CNPS Rare Plant Inventory (2021)
