

# Appendix E

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Supplemental Emissions Calculations  
for the Hay Road Landfill Project  
(August 2019)



## Summary of GHG Emissions

	<u>value</u>	<u>units</u>	<u>source</u>
Stationary Sources			
Generator	881	MTCO <sub>2</sub> e/year	wksht: Stationary-Source GHGs
Landfill (fugitive)	79,200	MTCO <sub>2</sub> e/year	wksht: Stationary-Source GHGs
Flare	207	MTCO <sub>2</sub> e/year	wksht: Stationary-Source GHGs
Subtotal	79,200	MTCO <sub>2</sub> e/year	wksht: Stationary-Source GHGs
Mobile Sources			
Self-Haul Trucks	193	MTCO <sub>2</sub> e/year	wksht: Truck Emissions 2020
Packer Trucks	788	MTCO <sub>2</sub> e/year	wksht: Truck Emissions 2020
Transfer Trucks	5,890	MTCO <sub>2</sub> e/year	wksht: Truck Emissions 2020
Subtotal	6,870	MTCO <sub>2</sub> e/year	wksht: Truck Emissions 2020
Total, project-related increase	80,288	MTCO <sub>2</sub> e/year	summation

## Stationary-Source GHG Emissions

	<u>value</u>	<u>units</u>	<u>source</u>
new diesel generator	881	MTCO <sub>2</sub> e/year	SCS Engineers 2019:49 (Table 4-13)
landfill (fugitive)			
baseline, actual	50,698	MTCO <sub>2</sub> e/year	SCS Engineers 2019:48 (Table 4-11)
existing-plus-project, permitted	129,898	MTCO <sub>2</sub> e/year	SCS Engineers 2019:48 (Table 4-11)
project increment	79,200	MTCO <sub>2</sub> e/year	calculation
flare			
baseline, actual	42	MTCO <sub>2</sub> e/year	SCS Engineers 2019:48 (Table 4-11)
existing-plus-project, permitted	249	MTCO <sub>2</sub> e/year	SCS Engineers 2019:48 (Table 4-11)
project increment	207	MTCO <sub>2</sub> e/year	calculation
Total, project-related increase	80,288	MTCO <sub>2</sub> e/year	summation

**Truck Emission Rates, 2020**

	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>CO2e</b>
<i>units</i>	<i>lb/mile</i>	<i>lb/mile</i>	<i>lb/mile</i>	<i>lb/mile</i>	<i>MT/mile</i>
Self-haul trucks	3.03E-05	1.73E-04	1.12E-04	5.21E-05	4.32E-04
Packer trucks	8.26E-05	1.85E-02	2.49E-04	1.10E-04	4.32E-03
Transfer trucks	3.58E-04	1.02E-02	4.27E-04	2.80E-04	1.48E-03

Source: mass conversion calculations

**Truck Emissions, Daily, 2020**

	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>CO2e</b>
<i>units</i>	<i>lb/day</i>	<i>lb/day</i>	<i>lb/day</i>	<i>lb/day</i>	<i>MT/day</i>
Self-haul trucks	0.04	0.2	0.1	0.1	0.5
Packer trucks	0.04	9.2	0.1	0.05	2.2
Transfer trucks	3.9	111.2	4.7	3.1	16.1
Total	4.0	120.7	4.9	3.2	18.8
Breakdown by Air Basin					
in SVAB	0.1	9.3	0.2	0.1	2.4
in SFBAAB	3.9	111.3	5.0	3.1	16.4

Source: calculations

**Truck Emissions, Annual, 2020**

	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>CO2e</b>
<i>units</i>	<i>tons/year</i>	<i>tons/year</i>	<i>tons/year</i>	<i>tons/year</i>	<i>MT/year</i>
Self-haul trucks	0.01	0.04	0.03	0.01	192.9
Packer trucks	0.008	1.686	0.023	0.010	787.7
Transfer trucks	0.7	20.3	0.9	0.6	5,889.6
Total	0.7	22.0	0.9	0.6	6,870
Breakdown by Air Basin					
in SVAB	0.01	1.71	0.04	0.02	884.1
in SFBAAB	0.7	20.3	0.9	0.6	5,986.1

Source: calculations

## Truck Emissions in 2023

### Project Parameters

	<u>value</u>	<u>units</u>	<u>source</u>
earliest cal yr of operation	2020	cal yr	project description
fuel type	diesel	fuel	assumption, conservative

### Truck Trip Parameters

	<u>Self-haul</u> <u>trucks</u>	<u>Packer</u> <u>trucks</u>	<u>Transfer</u> <u>trucks</u>	<u>units</u>	<u>source</u>
Veh Type in EMFAC	MDV	T7 SWCV	T7 Tractor	n/a	EMFAC
round trips per day	81	23	91	#	KD Anderson 2018:13
Trip Distance, round trip	15.1	21.7	120	miles	SCS Engineers 2019:41
Travel Distance, daily	1,223	499	10,920	VMT/day	calculation
Percent Breakdown by Air Basin					
in SVAB	50%	100%	0%	%	KD Anderson 2018:43
in SFBAAB	50%	0%	100%	%	KD Anderson 2018:43
Travel Distance, daily, by Air Basin					
in SVAB	612	499	0	VMT/day	calculation
in SFBAAB	612	0	10,920	VMT/day	calculation

### Truck Emission Factors from EMFAC2017 for Calendar Year 2020

	<u>ROG_RUNEX</u>	<u>NOx_RUNEX</u>	<u>PM10_RUNEX</u>	<u>PM10_PMTW</u>	<u>PM10_PMBW</u>	<u>PM2_5_RUNEX</u>	<u>PM2_5_PMTW</u>	<u>PM2_5_PMBW</u>	<u>CO2_RUNEX</u>	<u>CH4_RUNEX</u>	<u>N2O_RUNEX</u>
<i>units</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>
Self-haul trucks	0.010801642	0.049729121	0.004548687	0.008000002	0.036750011	0.004351913	0.002000001	0.015750005	379.5208116	0.000501716	0.059655386
Packer trucks	0.038080621	6.96400537	0.015204938	0.036000001	0.061740018	0.014547179	0.009000003	0.026460008	3976.723834	0.001768746	0.625085607
Transfer trucks	0.018515712	2.03423559	0.02791125	0.036000001	0.061740018	0.026703821	0.009000003	0.026460008	1266.032559	0.000860007	0.199002688

Source: EMFAC2017 Web Database at <https://www.arb.ca.gov/emfac/2017/>

### Global Warming Potential

	<u>value</u>	<u>units</u>	<u>source</u>
CO2	1	unitless	by definition
CH4	25	unitless	The Climate Registry. 2014. Default Emission Factors. Table B.1, p. 43. Available at
N2O	298	unitless	<a href="http://www.theclimateregistry.org/resources/protocols/general-reporting-protocol/#jump2">http://www.theclimateregistry.org/resources/protocols/general-reporting-protocol/#jump2</a> . Accessed October 7, 2014.

### Truck Emission Rates

	<u>ROG</u>	<u>NOx</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2e</u>
<i>units</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>	<i>g/mile</i>
Self-haul trucks	0.011	0.050	0.049	0.022	397
Packer trucks	0.038	6.964	0.113	0.050	4163
Transfer trucks	0.019	2.034	0.126	0.062	1325

Source: Consolidation and factoring in Global Warming Potential

### Unit Conversion Rates

	<u>value</u>	<u>units</u>	<u>source</u>
mass conversion rate	453.59237	g/lb	onlineconversion.com
mass conversion rate	1,000,000	g/MT	onlineconversion.com
mass conversion rate	2,000	lb/ton	onlineconversion.com
days per year	365	unitless	Earth

**Truck Emission Rates, 2023**

	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>CO2e</b>
<i>units</i>	<i>lb/mile</i>	<i>lb/mile</i>	<i>lb/mile</i>	<i>lb/mile</i>	<i>MT/mile</i>
Self-haul trucks	2.38E-05	1.10E-04	1.09E-04	4.87E-05	3.97E-04
Packer trucks	8.40E-05	1.54E-02	2.49E-04	1.10E-04	4.16E-03
Transfer truces	4.08E-05	4.48E-03	2.77E-04	1.37E-04	1.33E-03

Source: mass conversion calculations**Truck Emissions, Daily, 2023**

	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>CO2e</b>
<i>units</i>	<i>lb/day</i>	<i>lb/day</i>	<i>lb/day</i>	<i>lb/day</i>	<i>MT/day</i>
Self-haul trucks	0.0	0.1	0.1	0.1	0.5
Packer trucks	0.04	7.7	0.1	0.06	2.1
Transfer truces	0.4	49.0	3.0	1.5	14.5
Total	0.5	56.8	3.3	1.6	17.0
Breakdown by Air Basin					
in SVAB	0.1	7.7	0.2	0.1	2.3
in SFBAAB	0.5	49.0	5.0	1.5	14.7

Source: calculations**Truck Emissions, Annual, 2023**

	<b>ROG</b>	<b>NOx</b>	<b>PM10</b>	<b>PM2.5</b>	<b>CO2e</b>
<i>units</i>	<i>tons/year</i>	<i>tons/year</i>	<i>tons/year</i>	<i>tons/year</i>	<i>MT/year</i>
Self-haul trucks	0.01	0.02	0.02	0.01	177.4
Packer trucks	0.008	1.398	0.023	0.010	758.4
Transfer truces	0.1	8.9	0.6	0.3	5,282.6
Total	0.1	10.4	0.6	0.3	6,218
Breakdown by Air Basin					
in SVAB	0.01	1.4	0.03	0.02	847.1
in SFBAAB	0.1	8.9	0.6	0.3	5,371.3

Source: calculations

## EMFAC2017 (v1.0.2) Emission Rates

Region Type: County

Source: EMFAC2017 Web Database at <https://www.arb.ca.gov/emfac/2017/>

Region: SOLANO

Calendar Year: 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047,

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK
SOLANO	2020	MDV	Aggregated	Aggregated	DSL	810.2934352	35073.30403	3925.355837	0.013722833	0	0	0
SOLANO	2020	T7 SWCV	Aggregated	Aggregated	DSL	71.70664903	2925.957928	279.6559312	0.037456076	1.312645692	0	0
SOLANO	2020	T7 tractor	Aggregated	Aggregated	DSL	1202.062872	166261.6377	15266.19847	0.162374173	1.849635513	0	0
SOLANO	2021	MDV	Aggregated	Aggregated	DSL	872.5500796	37133.80254	4213.336822	0.012663088	0	0	0
SOLANO	2021	T7 SWCV	Aggregated	Aggregated	DSL	71.05161071	2898.889045	277.1012818	0.037801946	1.324246128	0	0
SOLANO	2021	T7 tractor	Aggregated	Aggregated	DSL	1244.242182	169862.2559	15801.87571	0.122551186	1.865597328	0	0
SOLANO	2022	MDV	Aggregated	Aggregated	DSL	932.6200407	38900.92756	4488.234083	0.011702804	0	0	0
SOLANO	2022	T7 SWCV	Aggregated	Aggregated	DSL	70.07127729	2859.140935	273.2779814	0.038059201	1.335800363	0	0
SOLANO	2022	T7 tractor	Aggregated	Aggregated	DSL	1270.262215	173203.5138	16132.33013	0.059557552	1.887638344	0	0
SOLANO	2023	MDV	Aggregated	Aggregated	DSL	989.781182	40580.42251	4748.914695	0.010801642	0	0	0
SOLANO	2023	T7 SWCV	Aggregated	Aggregated	DSL	69.08682562	2818.75605	269.4386199	0.038080621	1.346660607	0	0
SOLANO	2023	T7 tractor	Aggregated	Aggregated	DSL	1282.689048	176583.856	16290.15091	0.018515712	1.879640813	0	0
SOLANO	2024	MDV	Aggregated	Aggregated	DSL	1045.481359	42100.41935	4998.586149	0.010077796	0	0	0
SOLANO	2024	T7 SWCV	Aggregated	Aggregated	DSL	67.91798437	2770.900085	264.880139	0.03791719	1.356175948	0	0
SOLANO	2024	T7 tractor	Aggregated	Aggregated	DSL	1360.603191	180165.5276	17279.66052	0.018716693	1.879640813	0	0
SOLANO	2025	MDV	Aggregated	Aggregated	DSL	1096.128956	43438.14365	5226.848186	0.009376771	0	0	0
SOLANO	2025	T7 SWCV	Aggregated	Aggregated	DSL	66.55439245	2715.135445	259.5621305	0.037444044	1.365247264	0	0
SOLANO	2025	T7 tractor	Aggregated	Aggregated	DSL	1434.539798	183342.9572	18218.65543	0.018852707	1.879640813	0	0
SOLANO	2026	MDV	Aggregated	Aggregated	DSL	1146.597162	44573.70336	5449.206042	0.008797353	0	0	0
SOLANO	2026	T7 SWCV	Aggregated	Aggregated	DSL	65.11465112	2656.007135	253.9471394	0.036870524	1.367592381	0	0
SOLANO	2026	T7 tractor	Aggregated	Aggregated	DSL	1501.609494	186498.8515	19070.44057	0.018927626	1.879640813	0	0
SOLANO	2027	MDV	Aggregated	Aggregated	DSL	1188.829662	45672.53889	5642.993577	0.008070233	0	0	0
SOLANO	2027	T7 SWCV	Aggregated	Aggregated	DSL	63.77331612	2601.468202	248.7159329	0.036337306	1.370498259	0	0
SOLANO	2027	T7 tractor	Aggregated	Aggregated	DSL	1561.512528	190104.8551	19831.20911	0.01893254	1.879640813	0	0
SOLANO	2028	MDV	Aggregated	Aggregated	DSL	1228.59182	46655.71512	5825.481749	0.007492461	0	0	0
SOLANO	2028	T7 SWCV	Aggregated	Aggregated	DSL	62.48651038	2548.814192	243.6973905	0.035692168	1.374385683	0	0
SOLANO	2028	T7 tractor	Aggregated	Aggregated	DSL	1607.290814	192660.1073	20412.59334	0.018888847	1.879640813	0	0
SOLANO	2029	MDV	Aggregated	Aggregated	DSL	1266.913986	47563.16247	5998.927507	0.006935102	0	0	0
SOLANO	2029	T7 SWCV	Aggregated	Aggregated	DSL	61.731764	2517.838722	240.7538796	0.034811696	1.384399744	0	0
SOLANO	2029	T7 tractor	Aggregated	Aggregated	DSL	1645.646814	195194.6914	20899.71454	0.018795108	1.879640813	0	0
SOLANO	2030	MDV	Aggregated	Aggregated	DSL	1306.189783	48399.77522	6170.763303	0.006527366	0	0	0
SOLANO	2030	T7 SWCV	Aggregated	Aggregated	DSL	61.06430211	2490.605506	238.1507782	0.034037384	1.394199385	0	0
SOLANO	2030	T7 tractor	Aggregated	Aggregated	DSL	1679.752209	197713.5437	21332.85305	0.018715149	1.879640813	0	0
SOLANO	2031	MDV	Aggregated	Aggregated	DSL	1344.466449	49167.53841	6335.800153	0.006213097	0	0	0
SOLANO	2031	T7 SWCV	Aggregated	Aggregated	DSL	60.30439507	2459.389026	235.1871408	0.033346478	1.396609242	0	0
SOLANO	2031	T7 tractor	Aggregated	Aggregated	DSL	1704.217255	200210.3263	21643.55913	0.018640747	1.879640813	0	0
SOLANO	2032	MDV	Aggregated	Aggregated	DSL	1380.264384	49882.21055	6489.94691	0.005928447	0	0	0

SOLANO	2032	T7 SWCV	Aggregated	Aggregated	DSL	59.83015149	2439.941621	233.3375908	0.032522692	1.404921783	0	0
SOLANO	2032	T7 tractor	Aggregated	Aggregated	DSL	1719.92416	202681.8855	21843.03683	0.018565368	1.879640813	0	0
SOLANO	2033	MDV	Aggregated	Aggregated	DSL	1414.125482	50556.06009	6635.640738	0.005676787	0	0	0
SOLANO	2033	T7 SWCV	Aggregated	Aggregated	DSL	59.4555419	2424.74753	231.8766134	0.031661575	1.411539114	0	0
SOLANO	2033	T7 tractor	Aggregated	Aggregated	DSL	1724.355628	205137.4907	21899.31648	0.01849868	1.879640813	0	0
SOLANO	2034	MDV	Aggregated	Aggregated	DSL	1446.595239	51189.52118	6775.34788	0.005452796	0	0	0
SOLANO	2034	T7 SWCV	Aggregated	Aggregated	DSL	58.85775118	2400.168083	229.5452296	0.031024308	1.416300991	0	0
SOLANO	2034	T7 tractor	Aggregated	Aggregated	DSL	1728.593316	207577.3629	21953.13511	0.01842649	1.879640813	0	0
SOLANO	2035	MDV	Aggregated	Aggregated	DSL	1477.059242	51795.05227	6907.154792	0.005247043	0	0	0
SOLANO	2035	T7 SWCV	Aggregated	Aggregated	DSL	58.72914292	2395.086861	229.0436574	0.030262345	1.421781281	0	0
SOLANO	2035	T7 tractor	Aggregated	Aggregated	DSL	1735.44311	210005.1282	22040.12749	0.01835984	1.879640813	0	0
SOLANO	2036	MDV	Aggregated	Aggregated	DSL	1506.165379	52350.72825	7032.897533	0.005072133	0	0	0
SOLANO	2036	T7 SWCV	Aggregated	Aggregated	DSL	58.70169566	2394.011025	228.9366131	0.029607178	1.426736609	0	0
SOLANO	2036	T7 tractor	Aggregated	Aggregated	DSL	1741.966002	212418.7759	22122.96822	0.018301145	1.879640813	0	0
SOLANO	2037	MDV	Aggregated	Aggregated	DSL	1534.130391	52889.17755	7153.965418	0.004920361	0	0	0
SOLANO	2037	T7 SWCV	Aggregated	Aggregated	DSL	58.69253007	2393.575245	228.9008673	0.029107641	1.431277856	0	0
SOLANO	2037	T7 tractor	Aggregated	Aggregated	DSL	1747.615512	214819.072	22194.717	0.018249165	1.879640813	0	0
SOLANO	2038	MDV	Aggregated	Aggregated	DSL	1560.359461	53410.4323	7269.148287	0.004784303	0	0	0
SOLANO	2038	T7 SWCV	Aggregated	Aggregated	DSL	58.75489043	2396.045793	229.1440727	0.028534303	1.435001633	0	0
SOLANO	2038	T7 tractor	Aggregated	Aggregated	DSL	1754.783866	217206.5526	22285.7551	0.018205972	1.879640813	0	0
SOLANO	2039	MDV	Aggregated	Aggregated	DSL	1586.28364	53907.53918	7382.434222	0.004674239	0	0	0
SOLANO	2039	T7 SWCV	Aggregated	Aggregated	DSL	58.87083128	2400.71909	229.596242	0.028172355	1.438994876	0	0
SOLANO	2039	T7 tractor	Aggregated	Aggregated	DSL	1763.217805	219579.4519	22392.86613	0.018172206	1.879640813	0	0
SOLANO	2040	MDV	Aggregated	Aggregated	DSL	1611.225837	54393.81686	7492.124081	0.004577822	0	0	0
SOLANO	2040	T7 SWCV	Aggregated	Aggregated	DSL	58.92287048	2402.789529	229.7991949	0.027908677	1.443694765	0	0
SOLANO	2040	T7 tractor	Aggregated	Aggregated	DSL	1776.046949	221940.5156	22555.79625	0.01815003	1.879640813	0	0
SOLANO	2041	MDV	Aggregated	Aggregated	DSL	1636.068263	54869.01641	7600.690376	0.004501502	0	0	0
SOLANO	2041	T7 SWCV	Aggregated	Aggregated	DSL	59.03611174	2407.462665	230.2408358	0.02765625	1.448278402	0	0
SOLANO	2041	T7 tractor	Aggregated	Aggregated	DSL	1791.606182	224292.1039	22753.39852	0.018135399	1.879640813	0	0
SOLANO	2042	MDV	Aggregated	Aggregated	DSL	1660.740109	55321.98117	7708.327188	0.004439909	0	0	0
SOLANO	2042	T7 SWCV	Aggregated	Aggregated	DSL	59.13801181	2411.708685	230.6382461	0.027570329	1.45333129	0	0
SOLANO	2042	T7 tractor	Aggregated	Aggregated	DSL	1809.341065	226635.8703	22978.63153	0.018126606	1.879640813	0	0
SOLANO	2043	MDV	Aggregated	Aggregated	DSL	1684.857947	55755.05616	7813.636822	0.004390222	0	0	0
SOLANO	2043	T7 SWCV	Aggregated	Aggregated	DSL	59.16979207	2412.953908	230.7621891	0.027548467	1.459414384	0	0
SOLANO	2043	T7 tractor	Aggregated	Aggregated	DSL	1828.614137	228973.1988	23223.39954	0.018122216	1.879640813	0	0
SOLANO	2044	MDV	Aggregated	Aggregated	DSL	1708.571292	56177.61345	7917.08311	0.004350241	0	0	0
SOLANO	2044	T7 SWCV	Aggregated	Aggregated	DSL	59.26052064	2416.407441	231.1160305	0.027526635	1.464993936	0	0
SOLANO	2044	T7 tractor	Aggregated	Aggregated	DSL	1849.516975	231306.2584	23488.86558	0.018121747	1.879640813	0	0
SOLANO	2045	MDV	Aggregated	Aggregated	DSL	1731.963651	56586.10975	8018.916631	0.004319095	0	0	0
SOLANO	2045	T7 SWCV	Aggregated	Aggregated	DSL	59.302672	2418.343885	231.2804208	0.027514779	1.470268146	0	0
SOLANO	2045	T7 tractor	Aggregated	Aggregated	DSL	1870.721424	233635.1193	23758.16208	0.018122603	1.879640813	0	0
SOLANO	2046	MDV	Aggregated	Aggregated	DSL	1754.829197	57009.12217	8118.673677	0.004293481	0	0	0
SOLANO	2046	T7 SWCV	Aggregated	Aggregated	DSL	59.28245793	2417.315884	231.2015859	0.027414535	1.475233872	0	0
SOLANO	2046	T7 tractor	Aggregated	Aggregated	DSL	1892.307507	235960.0164	24032.30534	0.018124026	1.879640813	0	0
SOLANO	2047	MDV	Aggregated	Aggregated	DSL	1777.654039	57405.07935	8217.715941	0.004274911	0	0	0
SOLANO	2047	T7 SWCV	Aggregated	Aggregated	DSL	59.28064257	2417.291001	231.194506	0.02719039	1.478929244	0	0

SOLANO	2047	T7 tractor	Aggregated	Aggregated	DSL	1914.180925	238281.5989	24310.09775	0.018125362	1.879640813	0	0
SOLANO	2048	MDV	Aggregated	Aggregated	DSL	1800.066578	57805.85201	8315.04374	0.004258854	0	0	0
SOLANO	2048	T7 SWCV	Aggregated	Aggregated	DSL	59.08457329	2409.351248	230.4298358	0.027007079	1.484482707	0	0
SOLANO	2048	T7 tractor	Aggregated	Aggregated	DSL	1936.296037	240600.5397	24590.95967	0.018126676	1.879640813	0	0
SOLANO	2049	MDV	Aggregated	Aggregated	DSL	1821.80411	58187.62534	8409.961903	0.004242394	0	0	0
SOLANO	2049	T7 SWCV	Aggregated	Aggregated	DSL	58.93113375	2403.055638	229.8314216	0.026749677	1.489112861	0	0
SOLANO	2049	T7 tractor	Aggregated	Aggregated	DSL	1958.62763	242917.37	24874.5709	0.018128301	1.879640813	0	0

2048, 204!

ROG_RUNLOSS	ROG_RESTLOSS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS	TOG_RESTLOSS	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX
0	0	0	0.015622533	0	0	0	0	0	0	0.221660659	0	0
0	0	0	0.042640891	1.4943472	0	0	0	0	0	0.103187117	10.80116478	0
0	0	0	0.184850636	2.105669235	0	0	0	0	0	0.601183645	21.21102543	0
0	0	0	0.014416084	0	0	0	0	0	0	0.213398161	0	0
0	0	0	0.043034639	1.507553414	0	0	0	0	0	0.103830293	11.41049749	0
0	0	0	0.139515197	2.123840546	0	0	0	0	0	0.48272426	22.581012	0
0	0	0	0.013322864	0	0	0	0	0	0	0.20577451	0	0
0	0	0	0.043327503	1.520707031	0	0	0	0	0	0.104256926	12.01611226	0
0	0	0	0.06780174	2.148932565	0	0	0	0	0	0.259817426	24.67312198	0
0	0	0	0.012296951	0	0	0	0	0	0	0.198937313	0	0
0	0	0	0.043351888	1.533070591	0	0	0	0	0	0.104076032	12.62363356	0
0	0	0	0.021078729	2.139827985	0	0	0	0	0	0.160178518	27.77323374	0
0	0	0	0.011472901	0	0	0	0	0	0	0.193106216	0	0
0	0	0	0.043165834	1.543903083	0	0	0	0	0	0.10337896	13.25484005	0
0	0	0	0.02130753	2.139827985	0	0	0	0	0	0.161924138	27.77323374	0
0	0	0	0.010674831	0	0	0	0	0	0	0.187590713	0	0
0	0	0	0.042627194	1.554230086	0	0	0	0	0	0.101910387	13.88866344	0
0	0	0	0.021462372	2.139827985	0	0	0	0	0	0.163106985	27.77323374	0
0	0	0	0.010015201	0	0	0	0	0	0	0.182627051	0	0
0	0	0	0.041974285	1.556899823	0	0	0	0	0	0.100153638	14.5345422	0
0	0	0	0.021547661	2.139827985	0	0	0	0	0	0.163760765	27.77323374	0
0	0	0	0.009187424	0	0	0	0	0	0	0.177293542	0	0
0	0	0	0.041367257	1.560207943	0	0	0	0	0	0.09847858	15.17468366	0
0	0	0	0.021553256	2.139827985	0	0	0	0	0	0.163808762	27.77323374	0
0	0	0	0.008529669	0	0	0	0	0	0	0.172355999	0	0
0	0	0	0.040632816	1.56463348	0	0	0	0	0	0.096568202	15.79054858	0
0	0	0	0.021503515	2.139827985	0	0	0	0	0	0.163435186	27.77323374	0
0	0	0	0.007895153	0	0	0	0	0	0	0.167596801	0	0
0	0	0	0.039630466	1.576033726	0	0	0	0	0	0.094200149	16.31495397	0
0	0	0	0.0213968	2.139827985	0	0	0	0	0	0.162627827	27.77323374	0
0	0	0	0.007430972	0	0	0	0	0	0	0.163903072	0	0
0	0	0	0.03874897	1.587189871	0	0	0	0	0	0.092094241	16.81631789	0
0	0	0	0.021305772	2.139827985	0	0	0	0	0	0.16193916	27.77323374	0
0	0	0	0.007073198	0	0	0	0	0	0	0.160929831	0	0
0	0	0	0.037962427	1.58993331	0	0	0	0	0	0.09012399	17.31204245	0
0	0	0	0.021221072	2.139827985	0	0	0	0	0	0.161298225	27.77323374	0
0	0	0	0.006749143	0	0	0	0	0	0	0.158172667	0	0

0	0	0	0.037024609	1.599396505	0	0	0	0	0	0.087914639	17.74087605	0
0	0	0	0.021135258	2.139827985	0	0	0	0	0	0.16064895	27.77323374	0
0	0	0	0.006462644	0	0	0	0	0	0	0.155695634	0	0
0	0	0	0.036044293	1.606929833	0	0	0	0	0	0.085617786	18.12618767	0
0	0	0	0.02105934	2.139827985	0	0	0	0	0	0.160074982	27.77323374	0
0	0	0	0.006207646	0	0	0	0	0	0	0.153466822	0	0
0	0	0	0.035318813	1.612350868	0	0	0	0	0	0.083792634	18.55011998	0
0	0	0	0.020977156	2.139827985	0	0	0	0	0	0.159453458	27.77323374	0
0	0	0	0.005973409	0	0	0	0	0	0	0.151413514	0	0
0	0	0	0.034451376	1.61858976	0	0	0	0	0	0.081805502	18.83999824	0
0	0	0	0.020901281	2.139827985	0	0	0	0	0	0.15887952	27.77323374	0
0	0	0	0.005774286	0	0	0	0	0	0	0.149623393	0	0
0	0	0	0.033705518	1.624231024	0	0	0	0	0	0.080112212	19.08632891	0
0	0	0	0.020834461	2.139827985	0	0	0	0	0	0.158373879	27.77323374	0
0	0	0	0.005601504	0	0	0	0	0	0	0.148059959	0	0
0	0	0	0.033136834	1.629400888	0	0	0	0	0	0.078773874	19.32484647	0
0	0	0	0.020775285	2.139827985	0	0	0	0	0	0.157925912	27.77323374	0
0	0	0	0.00544661	0	0	0	0	0	0	0.146640642	0	0
0	0	0	0.032484131	1.633640125	0	0	0	0	0	0.07730127	19.51755293	0
0	0	0	0.020726113	2.139827985	0	0	0	0	0	0.157553691	27.77323374	0
0	0	0	0.00532131	0	0	0	0	0	0	0.14550537	0	0
0	0	0	0.032072081	1.638186128	0	0	0	0	0	0.076340402	19.70372372	0
0	0	0	0.020687673	2.139827985	0	0	0	0	0	0.157262719	27.77323374	0
0	0	0	0.005211546	0	0	0	0	0	0	0.144505777	0	0
0	0	0	0.031771905	1.643536594	0	0	0	0	0	0.075627116	19.90492937	0
0	0	0	0.020662427	2.139827985	0	0	0	0	0	0.157071844	27.77323374	0
0	0	0	0.005124661	0	0	0	0	0	0	0.143729928	0	0
0	0	0	0.031484535	1.648754716	0	0	0	0	0	0.074980693	20.0652538	0
0	0	0	0.020645771	2.139827985	0	0	0	0	0	0.156946145	27.77323374	0
0	0	0	0.005054542	0	0	0	0	0	0	0.143119241	0	0
0	0	0	0.03138672	1.654507045	0	0	0	0	0	0.07474241	20.2246054	0
0	0	0	0.020635761	2.139827985	0	0	0	0	0	0.156870855	27.77323374	0
0	0	0	0.004997975	0	0	0	0	0	0	0.142639331	0	0
0	0	0	0.031361833	1.661432184	0	0	0	0	0	0.074665476	20.40295115	0
0	0	0	0.020630763	2.139827985	0	0	0	0	0	0.156833549	27.77323374	0
0	0	0	0.00495246	0	0	0	0	0	0	0.142265204	0	0
0	0	0	0.031336979	1.667784079	0	0	0	0	0	0.074588672	20.56990462	0
0	0	0	0.020630229	2.139827985	0	0	0	0	0	0.156830041	27.77323374	0
0	0	0	0.004917002	0	0	0	0	0	0	0.141989285	0	0
0	0	0	0.031323481	1.673788366	0	0	0	0	0	0.07451458	20.74167598	0
0	0	0	0.020631204	2.139827985	0	0	0	0	0	0.156837897	27.77323374	0
0	0	0	0.004887843	0	0	0	0	0	0	0.141770712	0	0
0	0	0	0.031209362	1.679441466	0	0	0	0	0	0.074204067	20.92638793	0
0	0	0	0.020632824	2.139827985	0	0	0	0	0	0.156850582	27.77323374	0
0	0	0	0.004866702	0	0	0	0	0	0	0.141632876	0	0
0	0	0	0.030954189	1.683648366	0	0	0	0	0	0.07359091	21.08607529	0

0	0	0	0.020634345	2.139827985	0	0	0	0	0	0.156862483	27.77323374	0
0	0	0	0.004848422	0	0	0	0	0	0	0.141520104	0	0
0	0	0	0.030745504	1.689970561	0	0	0	0	0	0.073069764	21.29134745	0
0	0	0	0.020635841	2.139827985	0	0	0	0	0	0.156874163	27.77323374	0
0	0	0	0.004829684	0	0	0	0	0	0	0.141396855	0	0
0	0	0	0.030452471	1.695241639	0	0	0	0	0	0.072393151	21.467505	0
0	0	0	0.020637691	2.139827985	0	0	0	0	0	0.156888487	27.77323374	0

**2020-2049 avg 1-way trips/day**

**MDV:** 0.002099249 162  
**T7 SWCV:** 0.016227143 46  
**T7 tractor:** 0.031964555 182

NOx_RUNEX	NOx_IDLEX	NOx_STREX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW
0.07835124	0	0	412.8215389	0	0	0.000637399	0	0	0.006141361	0	0	0.008000002
8.397508974	43.0556023	1.849836401	4130.212147	4352.069825	0	0.001739738	0.060968993	0	0.015020235	0.068035248	0	0.03600001
4.62010241	27.58338686	1.224589188	1411.351592	4506.834141	0	0.00754186	0.085910779	0	0.095910963	0.049057907	0	0.03600001
0.067084975	0	0	401.6668497	0	0	0.000588176	0	0	0.00556247	0	0	0.008000002
7.903324953	41.43494654	2.04290366	4081.208848	4308.42151	0	0.001755803	0.061507803	0	0.015059701	0.063069643	0	0.03600001
3.90116841	26.87699996	1.353736705	1380.75521	4636.439502	0	0.005692185	0.086652164	0	0.079014744	0.036666352	0	0.03600001
0.05769149	0	0	390.5744536	0	0	0.000543573	0	0	0.005046004	0	0	0.008000002
7.421485335	39.82483041	2.234985116	4029.535705	4261.289422	0	0.001767751	0.062044467	0	0.015112861	0.058304275	0	0.03600001
3.017111721	25.79852036	1.559064718	1334.956827	4860.810053	0	0.002766294	0.087675912	0	0.040448162	0.015488862	0	0.03600001
0.049729121	0	0	379.5208116	0	0	0.000501716	0	0	0.004548687	0	0	0.008000002
6.96400537	38.28537936	2.42933814	3976.723834	4210.208351	0	0.001768746	0.062548897	0	0.015204938	0.054094912	0	0.03600001
2.03423559	22.21159678	1.858666754	1266.032559	4636.983581	0	0.000860007	0.087304447	0	0.02791125	0.007999421	0	0.03600001
0.043279523	0	0	368.4972423	0	0	0.000468094	0	0	0.004157371	0	0	0.008000002
6.502007568	36.83078397	2.632776282	3916.470773	4150.520442	0	0.001761155	0.06299086	0	0.015320467	0.049968084	0	0.03600001
2.039127581	22.21159678	1.859974134	1247.83657	4597.580213	0	0.000869342	0.087304447	0	0.028495166	0.007999421	0	0.03600001
0.037658807	0	0	357.3519227	0	0	0.000435533	0	0	0.003758868	0	0	0.008000002
6.045948375	35.42221379	2.838224093	3852.021301	4085.152873	0	0.001739179	0.063412199	0	0.015446982	0.046074713	0	0.03600001
2.036621582	22.21159678	1.861070558	1228.052781	4555.541045	0	0.000875659	0.087304447	0	0.028889307	0.007999421	0	0.03600001
0.033237975	0	0	348.3022391	0	0	0.00040862	0	0	0.003456159	0	0	0.008000002
5.534559085	34.04395374	3.050243137	3781.525386	4016.67255	0	0.00171254	0.063521124	0	0.0154893	0.040188437	0	0.03600001
2.026757956	22.21159678	1.86207934	1207.278965	4511.16958	0	0.000879139	0.087304447	0	0.02910375	0.007999421	0	0.03600001
0.028315535	0	0	339.1066665	0	0	0.000374847	0	0	0.002991576	0	0	0.008000002
5.035527479	32.70655885	3.260282273	3708.123189	3945.110796	0	0.001687774	0.063656094	0	0.015533358	0.034681025	0	0.03600001
2.006856649	22.21159678	1.863066923	1183.631251	4461.672895	0	0.000879367	0.087304447	0	0.029111399	0.007999421	0	0.03600001
0.024194495	0	0	330.8446821	0	0	0.000348011	0	0	0.00257488	0	0	0.008000002
4.563663836	31.4091762	3.462177954	3633.686678	3871.203462	0	0.001657809	0.063836655	0	0.015589846	0.029668168	0	0.03600001
1.983576448	22.21159678	1.864183295	1159.547979	4407.12008	0	0.000877338	0.087304447	0	0.028976735	0.007999421	0	0.03600001
0.02103926	0	0	323.4742671	0	0	0.000322122	0	0	0.002257015	0	0	0.008000002
4.220655852	30.26556365	3.632461445	3566.023206	3798.805091	0	0.001616913	0.064301782	0	0.015723887	0.027498687	0	0.03600001
1.955810264	22.21159678	1.86532221	1135.92275	4350.009167	0	0.000872984	0.087304447	0	0.028695154	0.007999421	0	0.03600001
0.018707312	0	0	316.9561414	0	0	0.000303184	0	0	0.002031061	0	0	0.008000002
3.893603017	29.16546753	3.795016011	3499.577539	3727.772546	0	0.001580948	0.06475695	0	0.015858534	0.025478666	0	0.03600001
1.932079199	22.21159678	1.866303129	1112.753104	4292.129383	0	0.00086927	0.087304447	0	0.028454934	0.007999421	0	0.03600001
0.016988263	0	0	311.1936076	0	0	0.000288586	0	0	0.001860194	0	0	0.008000002
3.52639791	28.16307729	3.958442098	3430.177954	3657.047945	0	0.001548858	0.064868882	0	0.015921901	0.021643098	0	0.03600001
1.910499446	22.21159678	1.867128194	1090.202653	4233.102989	0	0.000865814	0.087304447	0	0.028231577	0.007999421	0	0.03600001
0.015546963	0	0	306.0581122	0	0	0.000275365	0	0	0.001704276	0	0	0.008000002

3.2643056	27.27843315	4.098217787	3367.265589	3588.287607	0	0.001510595	0.065254978	0	0.016064	0.020333325	0	0.03600001
1.888328825	22.21159678	1.86793551	1068.355398	4171.508162	0	0.000862313	0.087304447	0	0.028005159	0.007999421	0	0.03600001
0.014378349	0	0	301.5235638	0	0	0.000263676	0	0	0.001565478	0	0	0.008000002
3.029136017	26.51783622	4.224848649	3307.99624	3523.183503	0	0.001470598	0.065562336	0	0.016201321	0.019194947	0	0.03600001
1.867074481	22.21159678	1.868713839	1048.144	4108.089386	0	0.000859216	0.087304447	0	0.027804309	0.007999421	0	0.03600001
0.013380687	0	0	297.5604786	0	0	0.000253272	0	0	0.001440714	0	0	0.008000002
2.696043225	25.64608611	4.363891051	3242.480089	3456.760612	0	0.001440999	0.065783513	0	0.016215847	0.016552383	0	0.03600001
1.844781313	22.21159678	1.869521702	1028.806946	4043.923061	0	0.000855863	0.087304447	0	0.027587122	0.007999421	0	0.03600001
0.012499516	0	0	294.0980847	0	0	0.000243715	0	0	0.001324508	0	0	0.008000002
2.527946788	25.06418665	4.459135788	3192.138635	3400.850405	0	0.001405608	0.066038058	0	0.016338025	0.015858162	0	0.03600001
1.824647929	22.21159678	1.870248966	1011.131081	3981.916741	0	0.000852767	0.087304447	0	0.027386766	0.007999421	0	0.03600001
0.011775549	0	0	291.0901923	0	0	0.000235591	0	0	0.00122571	0	0	0.008000002
2.379798016	24.56668964	4.539749617	3147.158353	3351.161236	0	0.001375177	0.06626822	0	0.016443726	0.015230474	0	0.03600001
1.807665902	22.21159678	1.870845051	995.4267799	3922.267524	0	0.000850041	0.087304447	0	0.027210585	0.007999421	0	0.03600001
0.011163265	0	0	288.5073583	0	0	0.000228541	0	0	0.001139359	0	0	0.008000002
2.235534196	24.1046349	4.617733225	3104.375424	3304.03325	0	0.001351975	0.066479149	0	0.016552652	0.014646278	0	0.03600001
1.793270162	22.21159678	1.871331603	980.4204099	3864.975804	0	0.000847626	0.087304447	0	0.027054767	0.007999421	0	0.03600001
0.010508896	0	0	286.2898723	0	0	0.000222222	0	0	0.001060952	0	0	0.008000002
2.112818531	23.70697393	4.681099144	3065.728342	3261.484055	0	0.001325344	0.066652109	0	0.016640394	0.01412257	0	0.03600001
1.781248605	22.21159678	1.871744094	966.910196	3811.445765	0	0.00084562	0.087304447	0	0.02692527	0.007999421	0	0.03600001
0.010060884	0	0	284.4269187	0	0	0.000217109	0	0	0.000997284	0	0	0.008000002
1.990019621	23.31719484	4.741636259	3029.843195	3222.543319	0	0.001308533	0.066837585	0	0.016723016	0.013583922	0	0.03600001
1.771827261	22.21159678	1.872071086	954.9008672	3762.021956	0	0.000844052	0.087304447	0	0.026824033	0.007999421	0	0.03600001
0.009610499	0	0	282.8535648	0	0	0.000212631	0	0	0.00094093	0	0	0.008000002
1.847211365	22.85181913	4.806502543	2993.957431	3184.299171	0	0.001296286	0.067055883	0	0.016807575	0.012796199	0	0.03600001
1.764781354	22.21159678	1.872349269	944.6395194	3718.659033	0	0.000843022	0.087304447	0	0.026757259	0.007999421	0	0.03600001
0.009321233	0	0	281.5524184	0	0	0.000209086	0	0	0.00089616	0	0	0.008000002
1.736828782	22.44843099	4.857759093	2962.889391	3151.266677	0	0.001284561	0.067268781	0	0.016859317	0.012228321	0	0.03600001
1.759268899	22.21159678	1.87259579	935.8293357	3680.573254	0	0.000842342	0.087304447	0	0.026712916	0.007999421	0	0.03600001
0.009089837	0	0	280.4876059	0	0	0.000206225	0	0	0.000859635	0	0	0.008000002
1.627349685	22.02926291	4.907989361	2934.382485	3121.454571	0	0.00128057	0.067503474	0	0.016902913	0.011630107	0	0.03600001
1.754993431	22.21159678	1.872814311	928.3080025	3647.315469	0	0.000841934	0.087304447	0	0.026685948	0.007999421	0	0.03600001
0.008906271	0	0	279.6122019	0	0	0.000203917	0	0	0.000829871	0	0	0.008000002
1.500346538	21.52610788	4.963712902	2905.602336	3091.732811	0	0.001279555	0.067786018	0	0.016950229	0.010883853	0	0.03600001
1.751784856	22.21159678	1.873001616	921.9080786	3618.835366	0	0.00084173	0.087304447	0	0.026672129	0.007999421	0	0.03600001
0.008756634	0	0	278.895793	0	0	0.00020206	0	0	0.000805655	0	0	0.008000002
1.380856104	21.05077495	5.015998969	2878.367857	3063.603848	0	0.001278541	0.068045174	0	0.016993246	0.010201434	0	0.03600001
1.749645898	22.21159678	1.873152196	916.5869968	3594.996471	0	0.000841708	0.087304447	0	0.026670061	0.007999421	0	0.03600001
0.008645899	0	0	278.3135062	0	0	0.000200614	0	0	0.000786537	0	0	0.008000002
1.264605224	20.59799949	5.070049762	2852.807313	3036.970724	0	0.00127799	0.068290147	0	0.017043991	0.009582541	0	0.03600001
1.748090063	22.21159678	1.873274105	912.000952	3574.406558	0	0.000841748	0.087304447	0	0.026672037	0.007999421	0	0.03600001
0.008531678	0	0	277.8379176	0	0	0.000199424	0	0	0.00077056	0	0	0.008000002
1.139544064	20.14103956	5.128922632	2826.290108	3008.905479	0	0.001273334	0.068520792	0	0.017109251	0.008964769	0	0.03600001
1.746890208	22.21159678	1.873375882	908.1065394	3556.903778	0	0.000841814	0.087304447	0	0.026675776	0.007999421	0	0.03600001
0.008463295	0	0	277.4594903	0	0	0.000198561	0	0	0.000758702	0	0	0.008000002
1.043535445	19.78962488	5.180503239	2802.624056	2983.084506	0	0.001262923	0.068692433	0	0.017168532	0.008544028	0	0.03600001

1.745814259	22.21159678	1.873467677	904.7962589	3542.033152	0	0.000841876	0.087304447	0	0.026679303	0.007999421	0	0.03600001
0.008380283	0	0	277.1515283	0	0	0.000197816	0	0	0.000748217	0	0	0.008000002
0.91638459	19.30580666	5.246084282	2775.58101	2954.000518	0	0.001254409	0.068950377	0	0.017234914	0.007949786	0	0.03600001
1.7448367	22.21159678	1.873552002	901.9881614	3529.425017	0	0.000841937	0.087304447	0	0.026682797	0.007999421	0	0.03600001
0.008232029	0	0	276.8913089	0	0	0.000197051	0	0	0.00073729	0	0	0.008000002
0.816291812	18.89858019	5.302633237	2751.581055	2927.849494	0	0.001242453	0.069165436	0	0.017283327	0.007455397	0	0.03600001
1.744080948	22.21159678	1.8736235	899.6698072	3519.014317	0	0.000842013	0.087304447	0	0.02668727	0.007999421	0	0.03600001

PM10_PMBW	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_PMTW	PM2_5_PMBW	SOx_RUNEX	SOx_IDLEX	SOx_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.036750011	0.005875689	0	0	0.002000001	0.015750005	0.003902648	0	0	0.064889797	0	0
0.061740018	0.014370466	0.065092073	0	0.009000003	0.026460008	0.039020196	0.041116198	0	0.649211833	0.68408477	0
0.061740018	0.091761897	0.046935683	0	0.009000003	0.026460008	0.01333375	0.042578334	0	0.221844816	0.708411566	0
0.036750011	0.00532184	0	0	0.002000001	0.015750005	0.003797196	0	0	0.063136435	0	0
0.061740018	0.014408225	0.060341278	0	0.009000003	0.026460008	0.038557238	0.04070383	0	0.641509197	0.677223863	0
0.061740018	0.075596602	0.035080182	0	0.009000003	0.026460008	0.013044691	0.043802781	0	0.217035491	0.728783723	0
0.036750011	0.004827716	0	0	0.002000001	0.015750005	0.003692333	0	0	0.061392865	0	0
0.061740018	0.014459086	0.055782058	0	0.009000003	0.026460008	0.038069055	0.04025855	0	0.633386898	0.669815355	0
0.061740018	0.038698392	0.014818821	0	0.009000003	0.026460008	0.01261201	0.045922523	0	0.209836623	0.76405165	0
0.036750011	0.004351913	0	0	0.002000001	0.015750005	0.003587837	0	0	0.059655386	0	0
0.061740018	0.014547179	0.05175479	0	0.009000003	0.026460008	0.037570115	0.039775961	0	0.625085607	0.661786122	0
0.061740018	0.026703821	0.007653369	0	0.009000003	0.026460008	0.011960848	0.043807922	0	0.199002688	0.728869245	0
0.036750011	0.003977525	0	0	0.002000001	0.015750005	0.003483624	0	0	0.057922635	0	0
0.061740018	0.01465771	0.047806487	0	0.009000003	0.026460008	0.037000874	0.039212059	0	0.615614665	0.652404014	0
0.061740018	0.027262478	0.007653369	0	0.009000003	0.026460008	0.011788941	0.043435658	0	0.196142532	0.722675584	0
0.036750011	0.003596261	0	0	0.002000001	0.015750005	0.003378261	0	0	0.056170746	0	0
0.061740018	0.014778752	0.044081542	0	0.009000003	0.026460008	0.036391987	0.038594499	0	0.605484106	0.642129142	0
0.061740018	0.027639569	0.007653369	0	0.009000003	0.026460008	0.011602034	0.043038493	0	0.193032796	0.716067613	0
0.036750011	0.003306647	0	0	0.002000001	0.015750005	0.003292709	0	0	0.054748262	0	0
0.061740018	0.01481924	0.038449903	0	0.009000003	0.026460008	0.035725977	0.037947531	0	0.59440313	0.631364989	0
0.061740018	0.027844735	0.007653369	0	0.009000003	0.026460008	0.011405773	0.042619293	0	0.189767441	0.709093036	0
0.036750011	0.002862162	0	0	0.002000001	0.015750005	0.003205778	0	0	0.053302846	0	0
0.061740018	0.014861392	0.033180739	0	0.009000003	0.026460008	0.035032509	0.037271451	0	0.582865327	0.620116478	0
0.061740018	0.027852052	0.007653369	0	0.009000003	0.026460008	0.011182361	0.042151673	0	0.18605035	0.701312847	0
0.036750011	0.002463492	0	0	0.002000001	0.015750005	0.003127672	0	0	0.052004177	0	0
0.061740018	0.014915436	0.028384736	0	0.009000003	0.026460008	0.03432927	0.036573211	0	0.571164944	0.608499274	0
0.061740018	0.027723214	0.007653369	0	0.009000003	0.026460008	0.010954834	0.041636285	0	0.182264795	0.692737904	0
0.036750011	0.002159378	0	0	0.002000001	0.015750005	0.003057995	0	0	0.05084565	0	0
0.061740018	0.015043678	0.026309106	0	0.009000003	0.026460008	0.033690019	0.035889227	0	0.560529188	0.597119259	0
0.061740018	0.027453815	0.007653369	0	0.009000003	0.026460008	0.010731635	0.04109673	0	0.178551238	0.683760864	0
0.036750011	0.001943198	0	0	0.002000001	0.015750005	0.002996375	0	0	0.049821092	0	0
0.061740018	0.015172501	0.02437647	0	0.009000003	0.026460008	0.033062273	0.035218147	0	0.550084855	0.585953932	0
0.061740018	0.027223986	0.007653369	0	0.009000003	0.026460008	0.01051274	0.04054991	0	0.174909292	0.674662968	0
0.036750011	0.001779723	0	0	0.002000001	0.015750005	0.002941899	0	0	0.048915301	0	0
0.061740018	0.015233127	0.020706827	0	0.009000003	0.026460008	0.03240662	0.034549976	0	0.539176206	0.57483701	0
0.061740018	0.027010292	0.007653369	0	0.009000003	0.026460008	0.010299694	0.039992258	0	0.171364675	0.66538484	0
0.036750011	0.00163055	0	0	0.002000001	0.015750005	0.00289335	0	0	0.048108073	0	0

0.061740018	0.015369079	0.019453714	0	0.009000003	0.026460008	0.031812256	0.033900362	0	0.529287259	0.564028842	0
0.061740018	0.026793669	0.007653369	0	0.009000003	0.026460008	0.010093292	0.039410341	0	0.167930591	0.655702991	0
0.036750011	0.001497756	0	0	0.002000001	0.015750005	0.002850482	0	0	0.047395305	0	0
0.061740018	0.015500459	0.018364582	0	0.009000003	0.026460008	0.031252308	0.033285291	0	0.519970942	0.553795383	0
0.061740018	0.026601507	0.007653369	0	0.009000003	0.026460008	0.009902345	0.038811192	0	0.164753641	0.645734443	0
0.036750011	0.00137839	0	0	0.002000001	0.015750005	0.002813017	0	0	0.046772363	0	0
0.061740018	0.015514356	0.015836334	0	0.009000003	0.026460008	0.030633344	0.03265776	0	0.509672716	0.54335463	0
0.061740018	0.026393715	0.007653369	0	0.009000003	0.026460008	0.009719658	0.03820498	0	0.161714125	0.63564839	0
0.036750011	0.001267211	0	0	0.002000001	0.015750005	0.002780285	0	0	0.046228123	0	0
0.061740018	0.015631249	0.015172145	0	0.009000003	0.026460008	0.030157743	0.032129548	0	0.50175974	0.534566324	0
0.061740018	0.026202027	0.007653369	0	0.009000003	0.026460008	0.009552665	0.037619175	0	0.158935725	0.62590186	0
0.036750011	0.001172687	0	0	0.002000001	0.015750005	0.002751849	0	0	0.045755325	0	0
0.061740018	0.015732378	0.01457161	0	0.009000003	0.026460008	0.029732792	0.03166011	0	0.494689466	0.526755879	0
0.061740018	0.026033467	0.007653369	0	0.009000003	0.026460008	0.009404299	0.037055639	0	0.156467228	0.616525834	0
0.036750011	0.001090071	0	0	0.002000001	0.015750005	0.002727432	0	0	0.045349339	0	0
0.061740018	0.015836592	0.014012687	0	0.009000003	0.026460008	0.0293286	0.031214868	0	0.487964586	0.519348015	0
0.061740018	0.02588439	0.007653369	0	0.009000003	0.026460008	0.009262526	0.036514375	0	0.154108435	0.607520373	0
0.036750011	0.001015056	0	0	0.002000001	0.015750005	0.002706469	0	0	0.045000781	0	0
0.061740018	0.015920538	0.013511634	0	0.009000003	0.026460008	0.028963481	0.030812884	0	0.481889803	0.512659875	0
0.061740018	0.025760495	0.007653369	0	0.009000003	0.026460008	0.009134888	0.03600865	0	0.151984818	0.599106197	0
0.036750011	0.000954142	0	0	0.002000001	0.015750005	0.002688857	0	0	0.044707951	0	0
0.061740018	0.015999586	0.012996288	0	0.009000003	0.026460008	0.028624456	0.030444991	0	0.476249157	0.506538933	0
0.061740018	0.025663637	0.007653369	0	0.009000003	0.026460008	0.00902143	0.035541718	0	0.150097119	0.591337462	0
0.036750011	0.000900226	0	0	0.002000001	0.015750005	0.002673983	0	0	0.044460641	0	0
0.061740018	0.016080487	0.012242641	0	0.009000003	0.026460008	0.028285425	0.03008368	0	0.470608415	0.500527486	0
0.061740018	0.025599752	0.007653369	0	0.009000003	0.026460008	0.008924486	0.035132047	0	0.148484178	0.584521415	0
0.036750011	0.000857393	0	0	0.002000001	0.015750005	0.002661683	0	0	0.044256119	0	0
0.061740018	0.016129991	0.01169933	0	0.009000003	0.026460008	0.02799191	0.029771605	0	0.465724952	0.495335238	0
0.061740018	0.025557327	0.007653369	0	0.009000003	0.026460008	0.008841252	0.034772231	0	0.147099339	0.578534861	0
0.036750011	0.000822447	0	0	0.002000001	0.015750005	0.002651617	0	0	0.044088746	0	0
0.061740018	0.0161717	0.011126993	0	0.009000003	0.026460008	0.027722591	0.029489955	0	0.461244063	0.49064919	0
0.061740018	0.025531526	0.007653369	0	0.009000003	0.026460008	0.008770194	0.034458028	0	0.145917091	0.5733072	0
0.036750011	0.000793971	0	0	0.002000001	0.015750005	0.002643341	0	0	0.043951144	0	0
0.061740018	0.01621697	0.010413022	0	0.009000003	0.026460008	0.02745069	0.029209159	0	0.456720224	0.485977343	0
0.061740018	0.025518305	0.007653369	0	0.009000003	0.026460008	0.00870973	0.034188962	0	0.144911112	0.568830524	0
0.036750011	0.000770802	0	0	0.002000001	0.015750005	0.002636568	0	0	0.043838535	0	0
0.061740018	0.016258125	0.009760125	0	0.009000003	0.026460008	0.027193392	0.02894341	0	0.452439343	0.481555862	0
0.061740018	0.025516326	0.007653369	0	0.009000003	0.026460008	0.008659459	0.033963744	0	0.144074712	0.565083382	0
0.036750011	0.000752512	0	0	0.002000001	0.015750005	0.002631064	0	0	0.043747007	0	0
0.061740018	0.016306676	0.009168004	0	0.009000003	0.026460008	0.026951909	0.028691794	0	0.448421582	0.477369505	0
0.061740018	0.025518217	0.007653369	0	0.009000003	0.026460008	0.008616133	0.033769221	0	0.143353849	0.561846934	0
0.036750011	0.000737226	0	0	0.002000001	0.015750005	0.002626567	0	0	0.043672252	0	0
0.061740018	0.016369113	0.008576957	0	0.009000003	0.026460008	0.026701388	0.028426647	0	0.444253447	0.47295804	0
0.061740018	0.025521794	0.007653369	0	0.009000003	0.026460008	0.00857934	0.033603863	0	0.142741702	0.559095741	0
0.036750011	0.000725881	0	0	0.002000001	0.015750005	0.00262299	0	0	0.043612768	0	0
0.061740018	0.016425829	0.008174417	0	0.009000003	0.026460008	0.026477802	0.028182703	0	0.440533473	0.468899343	0

0.061740018	0.025525168	0.007653369	0	0.009000003	0.026460008	0.008548066	0.033463373	0	0.142221372	0.556758286	0
0.036750011	0.000715849	0	0	0.002000001	0.015750005	0.002620079	0	0	0.043564361	0	0
0.061740018	0.016489339	0.007605882	0	0.009000003	0.026460008	0.026222313	0.027907932	0	0.436282683	0.464327744	0
0.061740018	0.025528511	0.007653369	0	0.009000003	0.026460008	0.008521537	0.033344258	0	0.141779978	0.554776463	0
0.036750011	0.000705395	0	0	0.002000001	0.015750005	0.002617619	0	0	0.043523458	0	0
0.061740018	0.016535658	0.00713288	0	0.009000003	0.026460008	0.025995573	0.02766087	0	0.432510224	0.460217168	0
0.061740018	0.025532791	0.007653369	0	0.009000003	0.026460008	0.008499634	0.033245902	0	0.141415565	0.553140045	0



EMFAC2017 (v1.0.2) Emission Rates

Region Type: County

Source: CARB. 2017. EMFAC2017 Web Database. Available: <https://www.arb.ca.gov/emfac/2017/>. Accessed August 2019.

Region: SOLANO

Calendar Year: 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK
SOLANO	2020	T7 SWCV	Aggregated	Aggregated	DSL	71.70664903	2925.957928	279.6559312	0.037456076	1.312645692	0	0
SOLANO	2021	T7 SWCV	Aggregated	Aggregated	DSL	71.05161071	2898.889045	277.1012818	0.037801946	1.324246128	0	0
SOLANO	2022	T7 SWCV	Aggregated	Aggregated	DSL	70.07127729	2859.140935	273.2779814	0.038059201	1.335800363	0	0
SOLANO	2023	T7 SWCV	Aggregated	Aggregated	DSL	69.08682562	2818.75605	269.4386199	0.038080621	1.346660607	0	0
SOLANO	2024	T7 SWCV	Aggregated	Aggregated	DSL	67.91798437	2770.900085	264.880139	0.03791719	1.356175948	0	0
SOLANO	2025	T7 SWCV	Aggregated	Aggregated	DSL	66.55439245	2715.135445	259.5621305	0.037444044	1.365247264	0	0
SOLANO	2026	T7 SWCV	Aggregated	Aggregated	DSL	65.11465112	2656.007135	253.9471394	0.036870524	1.367592381	0	0
SOLANO	2027	T7 SWCV	Aggregated	Aggregated	DSL	63.77331612	2601.468202	248.7159329	0.036337306	1.370498259	0	0
SOLANO	2028	T7 SWCV	Aggregated	Aggregated	DSL	62.48651038	2548.814192	243.6973905	0.035692168	1.374385683	0	0
SOLANO	2029	T7 SWCV	Aggregated	Aggregated	DSL	61.731764	2517.838722	240.7538796	0.034811696	1.384399744	0	0
SOLANO	2030	T7 SWCV	Aggregated	Aggregated	DSL	61.06430211	2490.605506	238.1507782	0.034037384	1.394199385	0	0
SOLANO	2031	T7 SWCV	Aggregated	Aggregated	DSL	60.30439507	2459.389026	235.1871408	0.033346478	1.396609242	0	0
SOLANO	2032	T7 SWCV	Aggregated	Aggregated	DSL	59.83015149	2439.941621	233.3375908	0.032522692	1.404921783	0	0
SOLANO	2033	T7 SWCV	Aggregated	Aggregated	DSL	59.4555419	2424.74753	231.8766134	0.031661575	1.411539114	0	0
SOLANO	2034	T7 SWCV	Aggregated	Aggregated	DSL	58.85775118	2400.168083	229.5452296	0.031024308	1.416300991	0	0
SOLANO	2035	T7 SWCV	Aggregated	Aggregated	DSL	58.72914292	2395.086861	229.0436574	0.030262345	1.421781281	0	0
SOLANO	2036	T7 SWCV	Aggregated	Aggregated	DSL	58.70169566	2394.011025	228.9366131	0.029607178	1.426736609	0	0
SOLANO	2037	T7 SWCV	Aggregated	Aggregated	DSL	58.69253007	2393.575245	228.9008673	0.029107641	1.431277856	0	0
SOLANO	2038	T7 SWCV	Aggregated	Aggregated	DSL	58.75489043	2396.045793	229.1440727	0.028534303	1.435001633	0	0
SOLANO	2039	T7 SWCV	Aggregated	Aggregated	DSL	58.87083128	2400.71909	229.596242	0.028172355	1.438994876	0	0
SOLANO	2040	T7 SWCV	Aggregated	Aggregated	DSL	58.92287048	2402.789529	229.7991949	0.027908677	1.443694765	0	0
SOLANO	2041	T7 SWCV	Aggregated	Aggregated	DSL	59.03611174	2407.462665	230.2408358	0.02765625	1.448278402	0	0
SOLANO	2042	T7 SWCV	Aggregated	Aggregated	DSL	59.13801181	2411.708685	230.6382461	0.027570329	1.45333129	0	0
SOLANO	2043	T7 SWCV	Aggregated	Aggregated	DSL	59.16979207	2412.953908	230.7621891	0.027548467	1.459414384	0	0
SOLANO	2044	T7 SWCV	Aggregated	Aggregated	DSL	59.26052064	2416.407441	231.1160305	0.027526635	1.464993936	0	0
SOLANO	2045	T7 SWCV	Aggregated	Aggregated	DSL	59.302672	2418.343885	231.2804208	0.027514779	1.470268146	0	0
SOLANO	2046	T7 SWCV	Aggregated	Aggregated	DSL	59.28245793	2417.315884	231.2015859	0.027414535	1.475233872	0	0
SOLANO	2047	T7 SWCV	Aggregated	Aggregated	DSL	59.28064257	2417.291001	231.194506	0.02719039	1.478929244	0	0
SOLANO	2048	T7 SWCV	Aggregated	Aggregated	DSL	59.08457329	2409.351248	230.4298358	0.027007079	1.484482707	0	0
SOLANO	2049	T7 SWCV	Aggregated	Aggregated	DSL	58.93113375	2403.055638	229.8314216	0.026749677	1.489112861	0	0
SOLANO	2050	T7 SWCV	Aggregated	Aggregated	DSL	58.80974539	2398.056745	229.358007	0.02653609	1.493737032	0	0

048, 2049, 2051

ROG_RUNLOSS	ROG_RESTLOSS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOAK	TOG_RUNLOSS	TOG_RESTLOSS	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX
0	0	0	0.042640891	1.4943472	0	0	0	0	0	0.103187117	10.80116478	0
0	0	0	0.043034639	1.507553414	0	0	0	0	0	0.103830293	11.41049749	0
0	0	0	0.043327503	1.520707031	0	0	0	0	0	0.104256926	12.01611226	0
0	0	0	0.043351888	1.533070591	0	0	0	0	0	0.104076032	12.62363356	0
0	0	0	0.043165834	1.543903083	0	0	0	0	0	0.10337896	13.25484005	0
0	0	0	0.042627194	1.554230086	0	0	0	0	0	0.101910387	13.88866344	0
0	0	0	0.041974285	1.556899823	0	0	0	0	0	0.100153638	14.5345422	0
0	0	0	0.041367257	1.560207943	0	0	0	0	0	0.09847858	15.17468366	0
0	0	0	0.040632816	1.56463348	0	0	0	0	0	0.096568202	15.79054858	0
0	0	0	0.039630466	1.576033726	0	0	0	0	0	0.094200149	16.31495397	0
0	0	0	0.03874897	1.587189871	0	0	0	0	0	0.092094241	16.81631789	0
0	0	0	0.037962427	1.58993331	0	0	0	0	0	0.09012399	17.31204245	0
0	0	0	0.037024609	1.599396505	0	0	0	0	0	0.087914639	17.74087605	0
0	0	0	0.036044293	1.606929833	0	0	0	0	0	0.085617786	18.12618767	0
0	0	0	0.035318813	1.612350868	0	0	0	0	0	0.083792634	18.55011998	0
0	0	0	0.034451376	1.61858976	0	0	0	0	0	0.081805502	18.83999824	0
0	0	0	0.033705518	1.624231024	0	0	0	0	0	0.080112212	19.08632891	0
0	0	0	0.033136834	1.629400888	0	0	0	0	0	0.078773874	19.32484647	0
0	0	0	0.032484131	1.633640125	0	0	0	0	0	0.07730127	19.51755293	0
0	0	0	0.032072081	1.638186128	0	0	0	0	0	0.076340402	19.70372372	0
0	0	0	0.031771905	1.643536594	0	0	0	0	0	0.075627116	19.90492937	0
0	0	0	0.031484535	1.648754716	0	0	0	0	0	0.074980693	20.0652538	0
0	0	0	0.03138672	1.654507045	0	0	0	0	0	0.07474241	20.2246054	0
0	0	0	0.031361833	1.661432184	0	0	0	0	0	0.074665476	20.40295115	0
0	0	0	0.031336979	1.667784079	0	0	0	0	0	0.074588672	20.56990462	0
0	0	0	0.031323481	1.673788366	0	0	0	0	0	0.07451458	20.74167598	0
0	0	0	0.031209362	1.679441466	0	0	0	0	0	0.074204067	20.92638793	0
0	0	0	0.030954189	1.683648366	0	0	0	0	0	0.07359091	21.08607529	0
0	0	0	0.030745504	1.689970561	0	0	0	0	0	0.073069764	21.29134745	0
0	0	0	0.030452471	1.695241639	0	0	0	0	0	0.072393151	21.467505	0
0	0	0	0.030209318	1.700505906	0	0	0	0	0	0.071832683	21.63441577	0

NOx_RUNEX	NOx_IDLEX	NOx_STREX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW
8.397508974	43.0556023	1.849836401	4130.212147	4352.069825	0	0.001739738	0.060968993	0	0.015020235	0.068035248	0	0.03600001
7.903324953	41.43494654	2.04290366	4081.208848	4308.42151	0	0.001755803	0.061507803	0	0.015059701	0.063069643	0	0.03600001
7.421485335	39.82483041	2.234985116	4029.535705	4261.289422	0	0.001767751	0.062044467	0	0.015112861	0.058304275	0	0.03600001
6.96400537	38.28537936	2.42933814	3976.723834	4210.208351	0	0.001768746	0.062548897	0	0.015204938	0.054094912	0	0.03600001
6.502007568	36.83078397	2.632776282	3916.470773	4150.520442	0	0.001761155	0.06299086	0	0.015320467	0.049968084	0	0.03600001
6.045948375	35.42221379	2.838224093	3852.021301	4085.152873	0	0.001739179	0.063412199	0	0.015446982	0.046074713	0	0.03600001
5.534559085	34.04395374	3.050243137	3781.525386	4016.67255	0	0.00171254	0.063521124	0	0.0154893	0.040188437	0	0.03600001
5.035527479	32.70655885	3.260282273	3708.123189	3945.110796	0	0.001687774	0.063656094	0	0.015533358	0.034681025	0	0.03600001
4.563663836	31.4091762	3.462177954	3633.686678	3871.203462	0	0.001657809	0.063836655	0	0.015589846	0.029668168	0	0.03600001
4.220655852	30.26556365	3.632461445	3566.023206	3798.805091	0	0.001616913	0.064301782	0	0.015723887	0.027498687	0	0.03600001
3.893603017	29.16546753	3.795016011	3499.577539	3727.772546	0	0.001580948	0.06475695	0	0.015858534	0.025478666	0	0.03600001
3.52639791	28.16307729	3.958442098	3430.177954	3657.047945	0	0.001548858	0.064868882	0	0.015921901	0.021643098	0	0.03600001
3.2643056	27.27843315	4.098217787	3367.265589	3588.287607	0	0.001510595	0.065254978	0	0.016064	0.020333325	0	0.03600001
3.029136017	26.51783622	4.224848649	3307.99624	3523.183503	0	0.001470598	0.065562336	0	0.016201321	0.019194947	0	0.03600001
2.696043225	25.64608611	4.363891051	3242.480089	3456.760612	0	0.001440999	0.065783513	0	0.016215847	0.016552383	0	0.03600001
2.527946788	25.06418665	4.459135788	3192.138635	3400.850405	0	0.001405608	0.066038058	0	0.016338025	0.015858162	0	0.03600001
2.379798016	24.56668964	4.539749617	3147.158353	3351.161236	0	0.001375177	0.06626822	0	0.016443726	0.015230474	0	0.03600001
2.235534196	24.1046349	4.617733225	3104.375424	3304.03325	0	0.001351975	0.066479149	0	0.016552652	0.014646278	0	0.03600001
2.112818531	23.70697393	4.681099144	3065.728342	3261.484055	0	0.001325344	0.066652109	0	0.016640394	0.01412257	0	0.03600001
1.990019621	23.31719484	4.741636259	3029.843195	3222.543319	0	0.001308533	0.066837585	0	0.016723016	0.013583922	0	0.03600001
1.847211365	22.85181913	4.806502543	2993.957431	3184.299171	0	0.001296286	0.067055883	0	0.016807575	0.012796199	0	0.03600001
1.736828782	22.44843099	4.857759093	2962.889391	3151.266677	0	0.001284561	0.067268781	0	0.016859317	0.012228321	0	0.03600001
1.627349685	22.02926291	4.907989361	2934.382485	3121.454571	0	0.00128057	0.067503474	0	0.016902913	0.011630107	0	0.03600001
1.500346538	21.52610788	4.963712902	2905.602336	3091.732811	0	0.001279555	0.067786018	0	0.016950229	0.010883853	0	0.03600001
1.380856104	21.05077495	5.015998969	2878.367857	3063.603848	0	0.001278541	0.068045174	0	0.016993246	0.010201434	0	0.03600001
1.264605224	20.59799949	5.070049762	2852.807313	3036.970724	0	0.00127799	0.068290147	0	0.017043991	0.009582541	0	0.03600001
1.139544064	20.14103956	5.128922632	2826.290108	3008.905479	0	0.001273334	0.068520792	0	0.017109251	0.008964769	0	0.03600001
1.043535445	19.78962488	5.180503239	2802.624056	2983.084506	0	0.001262923	0.068692433	0	0.017168532	0.008544028	0	0.03600001
0.91638459	19.30580666	5.246084282	2775.58101	2954.000518	0	0.001254409	0.068950377	0	0.017234914	0.007949786	0	0.03600001
0.816291812	18.89858019	5.302633237	2751.581055	2927.849494	0	0.001242453	0.069165436	0	0.017283327	0.007455397	0	0.03600001
0.720138472	18.49937846	5.355991599	2730.990794	2908.465654	0	0.001232533	0.069380216	0	0.01732529	0.006959613	0	0.03600001

PM10_PMBW	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_PMTW	PM2_5_PMBW	SOx_RUNEX	SOx_IDLEX	SOx_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
0.061740018	0.014370466	0.065092073	0	0.009000003	0.026460008	0.039020196	0.041116198	0	0.649211833	0.68408477	0
0.061740018	0.014408225	0.060341278	0	0.009000003	0.026460008	0.038557238	0.04070383	0	0.641509197	0.677223863	0
0.061740018	0.014459086	0.055782058	0	0.009000003	0.026460008	0.038069055	0.04025855	0	0.633386898	0.669815355	0
0.061740018	0.014547179	0.05175479	0	0.009000003	0.026460008	0.037570115	0.039775961	0	0.625085607	0.661786122	0
0.061740018	0.01465771	0.047806487	0	0.009000003	0.026460008	0.037000874	0.039212059	0	0.615614665	0.652404014	0
0.061740018	0.014778752	0.044081542	0	0.009000003	0.026460008	0.036391987	0.038594499	0	0.605484106	0.642129142	0
0.061740018	0.01481924	0.038449903	0	0.009000003	0.026460008	0.035725977	0.037947531	0	0.59440313	0.631364989	0
0.061740018	0.014861392	0.033180739	0	0.009000003	0.026460008	0.035032509	0.037271451	0	0.582865327	0.620116478	0
0.061740018	0.014915436	0.028384736	0	0.009000003	0.026460008	0.03432927	0.036573211	0	0.571164944	0.608499274	0
0.061740018	0.015043678	0.026309106	0	0.009000003	0.026460008	0.033690019	0.035889227	0	0.560529188	0.597119259	0
0.061740018	0.015172501	0.02437647	0	0.009000003	0.026460008	0.033062273	0.035218147	0	0.550084855	0.585953932	0
0.061740018	0.015233127	0.020706827	0	0.009000003	0.026460008	0.03240662	0.034549976	0	0.539176206	0.57483701	0
0.061740018	0.015369079	0.019453714	0	0.009000003	0.026460008	0.031812256	0.033900362	0	0.529287259	0.564028842	0
0.061740018	0.015500459	0.018364582	0	0.009000003	0.026460008	0.031252308	0.033285291	0	0.519970942	0.553795383	0
0.061740018	0.015514356	0.015836334	0	0.009000003	0.026460008	0.030633344	0.03265776	0	0.509672716	0.54335463	0
0.061740018	0.015631249	0.015172145	0	0.009000003	0.026460008	0.030157743	0.032129548	0	0.50175974	0.534566324	0
0.061740018	0.015732378	0.01457161	0	0.009000003	0.026460008	0.029732792	0.03166011	0	0.494689466	0.526755879	0
0.061740018	0.015836592	0.014012687	0	0.009000003	0.026460008	0.0293286	0.031214868	0	0.487964586	0.519348015	0
0.061740018	0.015920538	0.013511634	0	0.009000003	0.026460008	0.028963481	0.030812884	0	0.481889803	0.512659875	0
0.061740018	0.015999586	0.012996288	0	0.009000003	0.026460008	0.028624456	0.030444991	0	0.476249157	0.506538933	0
0.061740018	0.016080487	0.012242641	0	0.009000003	0.026460008	0.028285425	0.03008368	0	0.470608415	0.500527486	0
0.061740018	0.016129991	0.01169933	0	0.009000003	0.026460008	0.02799191	0.029771605	0	0.465724952	0.495335238	0
0.061740018	0.0161717	0.011126993	0	0.009000003	0.026460008	0.027722591	0.029489955	0	0.461244063	0.49064919	0
0.061740018	0.01621697	0.010413022	0	0.009000003	0.026460008	0.02745069	0.029209159	0	0.456720224	0.485977343	0
0.061740018	0.016258125	0.009760125	0	0.009000003	0.026460008	0.027193392	0.02894341	0	0.452439343	0.481555862	0
0.061740018	0.016306676	0.009168004	0	0.009000003	0.026460008	0.026951909	0.028691794	0	0.448421582	0.477369505	0
0.061740018	0.016369113	0.008576957	0	0.009000003	0.026460008	0.026701388	0.028426647	0	0.444253447	0.47295804	0
0.061740018	0.016425829	0.008174417	0	0.009000003	0.026460008	0.026477802	0.028182703	0	0.440533473	0.468899343	0
0.061740018	0.016489339	0.007605882	0	0.009000003	0.026460008	0.026222313	0.027907932	0	0.436282683	0.464327744	0
0.061740018	0.016535658	0.00713288	0	0.009000003	0.026460008	0.025995573	0.02766087	0	0.432510224	0.460217168	0
0.061740018	0.016575805	0.006658543	0	0.009000003	0.026460008	0.025801047	0.027477741	0	0.429273722	0.457170298	0