



**APPENDIX 5.5-1**

**Vehicle Fuel Energy Calculations**

**Table 1: On road Vehicles - Operational**

Scenario	Annual VMT	Fuel Consumption (gal)		
		Gasoline	Diesel	Total
Phase 1 (2025)	16,575,015	510,762	472,431	<b>983,194</b>
Phase 2 (2029)	18,309,495	416,958	633,980	<b>1,050,938</b>
Cumulative (2040)	18,419,725	419,468	637,797	<b>1,057,266</b>

**Table 2: Fuel Consumption Summary**

Phase 1		
Fuel	Fuel Efficiency (MPG)	%Fleet
Gasoline	25.4	78.2%
Diesel	7.6	21.8%
Phase 2		
Fuel	Fuel Efficiency (MPG)	%Fleet
Gasoline	27.5	70.8%
Diesel	8.0	29.2%
Cumulative		
Fuel	Fuel Efficiency (MPG)	%Fleet
Gasoline	31.2	71.0%
Diesel	8.4	29.0%

Table 3: Operational VMT Breakdown									
Scenario	Daily VMT					Annual VMT Total Annual	% Fleet		
	Employees, Guests, Deliveries	Trucks	Empty Trucks	Fuel Trucks	Total Daily		Gasoline	Diesel	
Phase 1 (2025)	35,402	9,240	649	120	45,411	16,575,015	78%	22%	
Phase 2 (2029)	35,540	13,690	933	-	50,163	18,309,495	71%	29%	
Cumulative (2040)	35842	13690	933	-	50,465	18,419,725	71%	29%	

Source: Fehr and Peers, Ontario International Airport South Airport Cargo Center Draft Transportation Impact Study, June 2022

Table 4: EMFAC2021 Emissions Inventory - Operations										
Fuel	2025					2029				
	VMT (miles/day)	Fuel Consumption (1,000 gal/day)	Fuel Efficiency (miles per gallon)	Fuel Percentage		VMT (miles/day)	Fuel Consumption	Fuel Efficiency	Fuel Percentage	
GAS	60,825,054	2,396	25.4	90		61,326,980	2,229	27.5	90	
DSL	6,859,924	898	7.6	10		7,081,454	888	8.0	10	

Note: Fuel percentage based on VMT.

Fuel efficiency calculated using fuel consumption and VMT from EMFAC2021.

**2025**

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: San Bernardino

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
San Bernardino	2025	All Other Buses	Aggregate	Aggregate	Diesel	229.2663691	12009.68797	2040.4707	1.25553978
San Bernardino	2025	LDA	Aggregate	Aggregate	Diesel	1948.632535	66018.2217	8282.7365	1.55166875
San Bernardino	2025	LDT1	Aggregate	Aggregate	Diesel	23.9948137	327.746725	67.113633	0.01375278
San Bernardino	2025	LDT2	Aggregate	Aggregate	Diesel	1014.177039	44885.5334	4886.2048	1.34399814
San Bernardino	2025	LHD1	Aggregate	Aggregate	Diesel	22260.03392	835207.0437	280003.22	40.5951999
San Bernardino	2025	LHD2	Aggregate	Aggregate	Diesel	9589.889589	365990.3703	120628.75	21.2926898
San Bernardino	2025	MDV	Aggregate	Aggregate	Diesel	3599.10134	143983.9356	16571.675	6.03242322
San Bernardino	2025	MH	Aggregate	Aggregate	Diesel	2582.96196	22618.02796	258.2962	2.18761345
San Bernardino	2025	Motor Coach	Aggregate	Aggregate	Diesel	61.58652159	8233.656181	1415.2583	1.4638549
San Bernardino	2025	PTO	Aggregate	Aggregate	Diesel	0	47346.73289	0	9.4207087
San Bernardino	2025	SBUS	Aggregate	Aggregate	Diesel	993.6115615	22107.22281	14387.495	2.9387344
San Bernardino	2025	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	25.74244438	1725.447195	591.56137	0.18953633
San Bernardino	2025	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	34.057475	2370.93749	782.64078	0.26058578
San Bernardino	2025	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	115.5681422	6153.527192	2655.7559	0.66601268
San Bernardino	2025	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	190.6542161	39002.35893	4381.2339	3.92277661
San Bernardino	2025	T6 Instate Delivery	Aggregate	Aggregate	Diesel	707.0166141	23941.01677	10089.127	2.69146176

San Bernardino	2025 T6 Instate Delivery	Aggregate	Aggregate	Diesel	816.7867353	27972.65803	11655.547	3.1881776
San Bernardino	2025 T6 Instate Delivery	Aggregate	Aggregate	Diesel	3325.261264	113323.7374	47451.478	12.7616546
San Bernardino	2025 T6 Instate Delivery	Aggregate	Aggregate	Diesel	606.0934599	33126.7465	8648.9537	3.6239185
San Bernardino	2025 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	1498.012687	62555.99708	17317.027	7.06756122
San Bernardino	2025 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	3535.008245	153544.2521	40864.695	17.4106334
San Bernardino	2025 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	3080.91431	131734.1102	35615.369	14.8211157
San Bernardino	2025 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	1802.07051	85487.3607	20831.935	9.39828143
San Bernardino	2025 T6 Instate Tractor C	Aggregate	Aggregate	Diesel	30.54824032	1558.619193	353.13766	0.17282843
San Bernardino	2025 T6 Instate Tractor C	Aggregate	Aggregate	Diesel	972.6087021	58049.71699	11243.357	6.06888256
San Bernardino	2025 T6 OOS Class 4	Aggregate	Aggregate	Diesel	14.94198121	994.4297168	343.36673	0.10791364
San Bernardino	2025 T6 OOS Class 5	Aggregate	Aggregate	Diesel	19.67045504	1364.178749	452.02706	0.14831488
San Bernardino	2025 T6 OOS Class 6	Aggregate	Aggregate	Diesel	67.24701381	3564.638101	1545.3364	0.37975745
San Bernardino	2025 T6 OOS Class 7	Aggregate	Aggregate	Diesel	101.6902872	25919.35159	2336.8428	2.58377029
San Bernardino	2025 T6 Public Class 4	Aggregate	Aggregate	Diesel	128.9173743	4399.872528	661.34613	0.51111658
San Bernardino	2025 T6 Public Class 5	Aggregate	Aggregate	Diesel	220.2082047	8091.095734	1129.6681	0.9437338
San Bernardino	2025 T6 Public Class 6	Aggregate	Aggregate	Diesel	178.7216757	6305.097815	916.8422	0.7315082
San Bernardino	2025 T6 Public Class 7	Aggregate	Aggregate	Diesel	378.3348979	17331.51656	1940.858	1.96835606
San Bernardino	2025 T6 Utility Class 5	Aggregate	Aggregate	Diesel	199.1426152	8065.517768	2549.0255	0.86907812
San Bernardino	2025 T6 Utility Class 6	Aggregate	Aggregate	Diesel	37.6515772	1518.845525	481.94019	0.16300845
San Bernardino	2025 T6 Utility Class 7	Aggregate	Aggregate	Diesel	42.51279132	2106.033036	544.16373	0.22487686
San Bernardino	2025 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	6291.890692	1297926.413	144587.65	207.621524
San Bernardino	2025 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	5671.722041	1555338.065	130336.17	241.968368
San Bernardino	2025 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	2397.626352	564943.1449	55097.454	89.9468394
San Bernardino	2025 T7 POLA Class 8	Aggregate	Aggregate	Diesel	2675.463778	337668.5003	43770.587	56.640109
San Bernardino	2025 T7 Public Class 8	Aggregate	Aggregate	Diesel	818.9945036	33635.41037	4201.4418	5.74967285
San Bernardino	2025 T7 Single Concrete/	Aggregate	Aggregate	Diesel	443.7187082	30488.04486	4179.8302	5.01947789
San Bernardino	2025 T7 Single Dump Cla	Aggregate	Aggregate	Diesel	864.0082301	49118.8343	8138.9575	8.27555771
San Bernardino	2025 T7 Single Other Cla:	Aggregate	Aggregate	Diesel	2633.848671	143251.9063	24810.854	23.7142078
San Bernardino	2025 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	454.4429298	29500.61207	2090.4375	10.7415271
San Bernardino	2025 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	5586.973126	421956.3074	81178.72	68.0995666
San Bernardino	2025 T7 Utility Class 8	Aggregate	Aggregate	Diesel	145.5915619	6464.216242	1863.572	1.04559552
San Bernardino	2025 UBUS	Aggregate	Aggregate	Diesel	7.060472311	697.8011686	28.241889	0.07489277
San Bernardino	2025 LDA	Aggregate	Aggregate	Gasoli	764579.6112	32810289.96	3545081.6	1088.4083
San Bernardino	2025 LDT1	Aggregate	Aggregate	Gasoli	70144.44426	2409958.695	302020.18	97.0981129
San Bernardino	2025 LDT2	Aggregate	Aggregate	Gasoli	337644.2202	13929503.44	1577536.2	564.18984
San Bernardino	2025 LHD1	Aggregate	Aggregate	Gasoli	29713.01675	1108490.991	442679.68	80.8854393
San Bernardino	2025 LHD2	Aggregate	Aggregate	Gasoli	4518.553278	161855.7997	67319.711	13.3415026
San Bernardino	2025 MCY	Aggregate	Aggregate	Gasoli	38855.32162	226907.5585	77710.643	5.44912767
San Bernardino	2025 MDV	Aggregate	Aggregate	Gasoli	251167.1745	9921872.959	1145571.7	498.692277
San Bernardino	2025 MH	Aggregate	Aggregate	Gasoli	6121.22242	53536.5282	612.36709	11.0826071

San Bernardino	2025 OBUS	Aggregate	Aggregate	Gasoli	619.7772438	30637.70864	12400.503	5.98324118
San Bernardino	2025 SBUS	Aggregate	Aggregate	Gasoli	398.9536056	20420.71668	1595.8144	2.25047579
San Bernardino	2025 T6TS	Aggregate	Aggregate	Gasoli	2309.446886	140687.5982	46207.413	26.8652499
San Bernardino	2025 T7IS	Aggregate	Aggregate	Gasoli	6.102009755	351.9069674	122.08901	0.0888095
San Bernardino	2025 UBUS	Aggregate	Aggregate	Gasoli	110.1157443	10540.07679	440.46298	1.7997065

	VMT Sum	Fuel Sum	Fuel Sum/Year
Diesel	6859924.498	897.8683833	<b>327,721,960</b>
Gas	60825053.94	2396.134689	<b>874,589,162</b>
			1,202,311,122

**2029**

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: San Bernardino

Calendar Year: 2029

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Trips	Fuel Consumption
San Bernardino	2029	All Other Buses	Aggregate	Aggregate	Diesel	244.3373039	12176.67353	2174.602	1.23103747
San Bernardino	2029	LDA	Aggregate	Aggregate	Diesel	1342.947787	45470.10681	5760.7153	1.01498436
San Bernardino	2029	LDT1	Aggregate	Aggregate	Diesel	3.146898505	50.6955622	9.1129163	0.0019385
San Bernardino	2029	LDT2	Aggregate	Aggregate	Diesel	1220.768212	52764.29613	5831.6495	1.47126656
San Bernardino	2029	LHD1	Aggregate	Aggregate	Diesel	21066.27975	777024.3862	264987.3	37.2686019
San Bernardino	2029	LHD2	Aggregate	Aggregate	Diesel	9492.634983	349980.1465	119405.41	19.9324529
San Bernardino	2029	MDV	Aggregate	Aggregate	Diesel	3407.453611	132611.0767	15521.546	5.19555278
San Bernardino	2029	MH	Aggregate	Aggregate	Diesel	2432.652751	20899.44143	243.26528	2.02581687
San Bernardino	2029	Motor Coach	Aggregate	Aggregate	Diesel	70.52680186	8421.685631	1620.7059	1.43241844
San Bernardino	2029	PTO	Aggregate	Aggregate	Diesel	0	47256.76802	0	8.95919758
San Bernardino	2029	SBUS	Aggregate	Aggregate	Diesel	948.1034193	20587.75018	13728.538	2.7029839
San Bernardino	2029	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	25.44680511	1710.229082	584.76758	0.18287944
San Bernardino	2029	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	32.91117139	2359.972947	756.29872	0.25300732
San Bernardino	2029	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	124.5322096	6038.462601	2861.7502	0.63858959
San Bernardino	2029	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	200.3851369	39994.53208	4604.8504	3.8214969
San Bernardino	2029	T6 Instate Delivery	Aggregate	Aggregate	Diesel	733.9293683	24324.02434	10473.172	2.69031111
San Bernardino	2029	T6 Instate Delivery	Aggregate	Aggregate	Diesel	859.6243145	28479.46604	12266.839	3.18377338
San Bernardino	2029	T6 Instate Delivery	Aggregate	Aggregate	Diesel	3475.062291	115277.6101	49589.139	12.7712728
San Bernardino	2029	T6 Instate Delivery	Aggregate	Aggregate	Diesel	682.8233816	34972.27702	9743.8897	3.82149517

San Bernardino	2029 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	1558.826863	63051.71746	18020.039	6.99361025
San Bernardino	2029 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	3779.9096	155345.5743	43695.755	17.2742037
San Bernardino	2029 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	3256.760819	133184.1638	37648.155	14.7265933
San Bernardino	2029 T6 Instate Other Cl:	Aggregate	Aggregate	Diesel	2088.707381	87724.46774	24145.457	9.56529965
San Bernardino	2029 T6 Instate Tractor C	Aggregate	Aggregate	Diesel	32.01847494	1560.988619	370.13357	0.16941625
San Bernardino	2029 T6 Instate Tractor C	Aggregate	Aggregate	Diesel	1133.351666	61062.08295	13101.545	6.26518053
San Bernardino	2029 T6 OOS Class 4	Aggregate	Aggregate	Diesel	15.88277359	1075.099256	364.98614	0.10997442
San Bernardino	2029 T6 OOS Class 5	Aggregate	Aggregate	Diesel	20.36091092	1474.842851	467.89373	0.15161724
San Bernardino	2029 T6 OOS Class 6	Aggregate	Aggregate	Diesel	78.71217014	3853.806566	1808.8057	0.38732247
San Bernardino	2029 T6 OOS Class 7	Aggregate	Aggregate	Diesel	108.020967	28021.9659	2482.3218	2.6151941
San Bernardino	2029 T6 Public Class 4	Aggregate	Aggregate	Diesel	118.3640272	4199.833273	607.20746	0.47842833
San Bernardino	2029 T6 Public Class 5	Aggregate	Aggregate	Diesel	218.5632468	7860.60464	1121.2295	0.90476395
San Bernardino	2029 T6 Public Class 6	Aggregate	Aggregate	Diesel	166.0616861	6039.289617	851.89645	0.68658099
San Bernardino	2029 T6 Public Class 7	Aggregate	Aggregate	Diesel	362.8148765	16495.60384	1861.2403	1.83015135
San Bernardino	2029 T6 Utility Class 5	Aggregate	Aggregate	Diesel	188.5584171	7552.114065	2413.5477	0.80180814
San Bernardino	2029 T6 Utility Class 6	Aggregate	Aggregate	Diesel	35.60473113	1423.882593	455.74056	0.15073438
San Bernardino	2029 T6 Utility Class 7	Aggregate	Aggregate	Diesel	39.47087462	1955.319424	505.2272	0.20527601
San Bernardino	2029 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	6567.708177	1343336.649	150925.93	201.438443
San Bernardino	2029 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	6137.907331	1700945.803	141049.11	240.484678
San Bernardino	2029 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	2648.217945	617832.0283	60856.048	90.396653
San Bernardino	2029 T7 POLA Class 8	Aggregate	Aggregate	Diesel	2732.376373	388176.3025	44701.677	64.2497265
San Bernardino	2029 T7 Public Class 8	Aggregate	Aggregate	Diesel	728.6906356	29981.16628	3738.183	5.02018343
San Bernardino	2029 T7 Single Concrete/	Aggregate	Aggregate	Diesel	423.3999306	28199.08473	3988.4273	4.46539346
San Bernardino	2029 T7 Single Dump Cla	Aggregate	Aggregate	Diesel	904.2666737	46820.15369	8518.1921	7.73328709
San Bernardino	2029 T7 Single Other Cla:	Aggregate	Aggregate	Diesel	3033.772732	147136.5274	28578.139	23.8996321
San Bernardino	2029 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	324.8093183	21087.54551	1494.1229	7.63232256
San Bernardino	2029 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	6588.939357	448834.8109	95737.289	69.9841259
San Bernardino	2029 T7 Utility Class 8	Aggregate	Aggregate	Diesel	148.4851235	6319.531575	1900.6096	1.00634402
San Bernardino	2029 UBUS	Aggregate	Aggregate	Diesel	5.097846979	503.5822061	20.391388	0.04918195
San Bernardino	2029 LDA	Aggregate	Aggregate	Gasoli	755670.557	32350957.09	3497594.5	995.035554
San Bernardino	2029 LDT1	Aggregate	Aggregate	Gasoli	64308.32076	2249492.293	278255.25	84.2054763
San Bernardino	2029 LDT2	Aggregate	Aggregate	Gasoli	367615.6796	15131473.23	1715418.8	562.440747
San Bernardino	2029 LHD1	Aggregate	Aggregate	Gasoli	28008.39803	1057886.118	417283.4	71.0555485
San Bernardino	2029 LHD2	Aggregate	Aggregate	Gasoli	4123.608307	146222.003	61435.62	11.271346
San Bernardino	2029 MCY	Aggregate	Aggregate	Gasoli	38595.971	222317.9603	77191.942	5.26115155
San Bernardino	2029 MDV	Aggregate	Aggregate	Gasoli	250462.5939	9937121.552	1142620.9	458.235039
San Bernardino	2029 MH	Aggregate	Aggregate	Gasoli	4867.550429	43145.92175	486.94974	8.92998879
San Bernardino	2029 OBUS	Aggregate	Aggregate	Gasoli	544.3980014	25305.40668	10892.315	4.75382261
San Bernardino	2029 SBUS	Aggregate	Aggregate	Gasoli	413.4912231	21344.12094	1653.9649	2.32094997
San Bernardino	2029 T6TS	Aggregate	Aggregate	Gasoli	2110.005454	131473.4745	42216.989	24.0841068

San Bernardino	2029 T7IS	Aggregate	Aggregate	Gasoli	2.670712519	329.1654908	53.435616	0.07059119
San Bernardino	2029 UBUS	Aggregate	Aggregate	Gasoli	104.0589399	9911.493304	416.23576	1.62440692

	VMT Sum	Fuel Sum	Fuel Sum/Year
Diesel	7081454.142	888.2752025	<b>324,220,449</b>
Gas	61326979.83	2229.288729	<b>813,690,386</b>
			1,137,910,835