APPENDIX B

Air Quality and Greenhouse Gas Emissions

GHG Emissions Summary

New Development, as Proposed under the General Plan Buildout

Emissions Source	GHG Emissions ($MTCO_2e$ / year)
Construction GHG Emissions	
Maximum Annual Construction Emissions	54,820
Total Construction Emissions of Full Buildout	548,204
Operational GHG Emissions	
Area	37,040
Energy	108,513
Mobile[1]	502,822
Waste	28,731
Water	13,452
Total Annual Operational Emissions	**690559**
Total[4] Annual Operational + Amortized Construction Emissions	**708,832**
Total\[4] Annual Project Emissions per 1,000 Square Feet[2]	**10.33**
PCAPCD GHG Efficiency Threshold	***27.3***
Total[4] Annual Project Emissions per Service Population[3]	**11.39**
2030 Statewide GHG Efficiency Threshold	***2.25***
Exceed threshold?	**Yes**

Notes:

[1] Mobile emissions are calculated outside of CalEEMod using EMFAC 2017 emissions rates and VMT from the Transportation Impact Analysis.
[2] Annual project emissions (amortized construction + operational) per 1,000 square feet calculated based upon new development of approximately 68,600,861 square feet with buildout of the General Plan.
[3] Annual project emissions (amortized construction + operational) are calculated based upon estimated additional population and employment with new development under the General Plan.
[4] Totals may not add due to rounding.

Source: Modeled by AECOM in 2019

Existing in City of Roseville + New with the General Plan Buildout

Emissions Source	GHG Emissions ($MTCO_2e$ / year)
Construction GHG Emissions	
Maximum Annual Construction Emissions	54,820
Total Construction Emissions of Full Buildout	548,204
Operational GHG Emissions	
Area	115,302
Energy	303,238
Mobile[1]	1,071,198
Waste	87,758
Water	33,268
Total Annual Operational Emissions	**1,610,763**
Total[4] Annual Operational + Amortized Construction Emissions	**1,629,037**
Total\[4] Annual Project Emissions per 1,000 Square Feet[2]	**9.07**
PCAPCD GHG Efficiency Threshold	***27.3***
Total[4] Annual Project Emissions per Service Population[3]	**5.12**
2030 Statewide GHG Efficiency Threshold	***2.25***
Exceed threshold?	**Yes**

Notes:

[1] Mobile emissions are calculated outside of CalEEMod using EMFAC 2017 emissions rates and VMT from the Transportation Impact Analysis.
[2] Annual project emissions (amortized construction + operational) per 1,000 square feet calculated based upon total Land Use in Planning Area with buildout of 2035 General Plan Updtae (approximately 68,600,861 square feet of development).
[3] Annual project emissions (amortized construction + operational) per service population are calculated based upon estimate of 198,000 residents + 120,000 employees in the City of Roseville in 2035 with buildout of the 2035 General Plan Update (See General Plan Land Use Element)
[4] Totals may not add due to rounding.

Source: Modeled by AECOM in 2019

2016 GHG Emissions Inventory

Emissions Source	GHG Emissions ($MTCO_2e$ / year)
Operational GHG Emissions	
Area[1]	-
Energy[2]	446,557
Mobile[3]	565,734
Waste[4]	33,236
Water[5]	4,903
Total[6] Annual Operational Emissions	**1,050,430**
Existing Service Population (residents + employees)	***204,802***
Total[6] Annual Project Emissions per Service Population[3]	**5.13**

Notes:

2016 emissions inventory is based on City and relevant agency provided activity data, use of industry standard emission factors, and modeling results from the ClearPath tool, which allow users to input the sector activity (e.g., kilowatt hour) and emission factors to calculate the final carbon dioxide equivalent (CO2e) emissions.

[1.] Area emissions would be those generated by wood burning fireplaces. Data was not available to assess these emissions for 2016 conditions. However, as shown in tables above, default modeling assumptions were used for the purposes of the New Development and Total GP Planning Area Full Buildout Scenarios.

[2.] Energy emissions includes electricity and natural gas, as well as LPG, wood burning, and fule oil use in the residential, commercial/institutional and industrial buildings.

[3.] Mobile emissions are based on SACOG data and EMFAC emission factors.

[4.] These emissions are associated with solid waste that is generated within the community and disposed in a landfill. The anerobic decomposition process in a landfill environment produces methane as organic waste materials, such as food scraps, paper and cardboard, wood debris, and yard trimmings, decompose over time.

[5.] Water energy emissions represent the electricity used to supply potable water to residents and businesses. Wastewater influent and effluent emissions occur as a result of the wastewater treatment process and include process emissions of nitrous oxide (N2O). Wastewater emissions also include those associated with combustion of digester gas that is collected during the treatment process.

[6.] Totals may not add due to rounding.

Source: Modeled by AECOM in 2018

GHG Efficiency Target

Table 1 **Statewide Population Projections**

	2020	2024	2025	2030	2035	2050
Population	40,719,999	42,069,604	42,407,005	44,019,846	45,521,334	49,158,401

Source: http://www.dof.ca.gov/Forecasting/Demographics/projections/
P-1: State Population Projections (2010-2060), February 2017

Note: 2024 value interpolated between 2020 and 2025 for use in employment forecasts in Table 3

Table 2 **Statewide Employment Projections**

	2014	2020	2024
Total	17,135,000	18,686,300	19,720,500
	2014	**2020**	**2024**
LU sorted	15,694,600	17,178,580	18,167,900

Source: http://www.labormarketinfo.edd.ca.gov/data/employment-projections.html
Long-Term (Ten-years) Projections, Occupational Proections

Note: LU sorted excludes occupations that align with the statewide emissions sectors that were removed from the LU-based GHG inventory for local climate planning;
See Roseville Target Setting Memo for full descrption of SOC codes that were removed from total employment value

Table 3 **Statewide Demographic Projections**

	2020	2024	2030	2035	2050
Population	40,719,999	42,069,604	44,019,846	45,521,334	49,158,401
Employment	18,686,300	19,720,500	20,634,693	21,338,529	23,043,437
Service Pop.	59,406,299	61,790,104	64,654,539	66,859,863	72,201,838
Emp/Pop ratio		46.9%	46.9%	46.9%	46.9%

Source: See Table 1 for Population source; see Table 2 for Employment source

Note: Employment projections beyond 2024 calculated as ratio of 2024 Employment/Population, and held constant for future years

Table 4 **Statewide Efficiency Targets**

	2020	2030	2035	2050
MT CO2e	431,000,000	258,600,000	215,500,000	86,200,000
MT/capita	10.58	5.87	4.73	1.75
MT/SP	7.26	4.00	3.22	1.19

Source: https://www.arb.ca.gov/cc/inventory/1990level/1990level.htm

Note: 2020 MT CO2e is CA statewide 2020 emissions limit (revised in 2014 from original 2007 limit that used SAR instead of 4AR);
2030 value calculated as 40% below 2020 limit; 2035 calculated as 50% below 2020 limit; 2050 calculated as 80% below 2020 limit

Table 5 **Demographic Projects - Land Use Sorted**

	2020	2024	2030	2035	2050
Population	40,719,999	42,069,604	44,019,846	45,521,334	49,158,401
Employment	17,178,580	18,167,900	19,010,119	19,658,541	21,229,221
Service Pop.	57,898,579	60,237,504	63,029,965	65,179,875	70,387,622
Emp/Pop ratio		43.2%	43.2%	43.2%	43.2%

Source: See Table 1 for Population source; see Table 2 for Employment source

Note: Employment projections beyond 2024 calculated as ratio of 2024 Employment/Population, and held constant for future years

Table 6 **Efficiency Targets - Land Use Sorted**

	2020	2030	2035	2050
MT CO2e	293,400,000	176,040,000	146,700,000	58,680,000
MT/capita	7.21	4.00	3.22	1.19
MT/SP	5.07	2.79	2.25	0.83

Criteria Air Pollutant Emissions

Construction-related Emissions

Max Single-Year Construction Scenario (2021)		Unmitigated Maximum Daily Emissions (lb/dy)							
Construction Phase		VOC	NOX	PM10 Fugitive Dust	PM10 Exhaust	PM10 Total	PM2.5 Fugitive Dust	PM2.5 Exhaust	PM2.5 Total
Demolition	*on-site*	3.3121	33.201	0	1.6587	1.6587	0	1.5419	1.5419
	off-site	0.0563	0.0401	0.1232	0.00078	0.12398	0.0327	0.00072	0.03342
	Sub-total	*3.3684*	*33.2411*	*0.1232*	*1.65948*	*1.78268*	*0.0327*	*1.54262*	*1.57532*
Site Preparation	*on-site*	4.0765	42.4173	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523
	off-site	0.0676	0.0482	0.1479	0.00094	0.14884	0.0392	0.00087	0.04007
	Sub-total	*4.1441*	*42.4655*	*18.2142*	*2.19834*	*20.41254*	*9.9699*	*2.02247*	*11.99237*
Grading	*on-site*	4.4501	50.1975	8.6733	2.1739	10.8472	3.5965	2	5.5965
	off-site	0.0751	0.0535	0.1643	0.00104	0.16534	0.0436	0.00096	0.04456
	Sub-total	*4.5252*	*50.251*	*8.8376*	*2.17494*	*11.01254*	*3.6401*	*2.00096*	*5.64106*
Building Construction	*on-site*	2.1198	19.186	0	1.1171	1.1171	0	1.0503	1.0503
	off-site	24.1855	230.4032	50.0247	1.211	51.2357	13.5517	1.15	14.7017
	Sub-total	*26.3053*	*249.5892*	*50.0247*	*2.3281*	*52.3528*	*13.5517*	*2.2003*	*15.752*
Paving	*on-site*	1.3566	14.0656	0	0.7528	0.7528	0	0.6926	0.6926
	off-site	0.0563	0.0401	0.1232	0.00078	0.12398	0.0327	0.00072	0.03342
	Sub-total	*1.4129*	*14.1057*	*0.1232*	*0.75358*	*0.87678*	*0.0327*	*0.69332*	*0.72602*
Architectural Coating	*on-site*	468.8793	1.6838	0	0.1109	0.1109	0	0.1109	0.1109
	off-site	3.4327	2.4455	7.5083	0.0477	7.556	1.9916	0.044	2.0356
	Sub-total	*472.312*	*4.1293*	*7.5083*	*0.1586*	*7.6669*	*1.9916*	*0.1549*	*2.1465*
Total		**512.0679**	**393.7818**	**84.8312**	**9.27304**	**94.10424**	**29.2187**	**8.61457**	**37.83327**

Table x.x. Summary of Maximum Daily Construction Emissions:
Maximum Single-Year Construction Scenario (2021)

Construction Phase	Maximum Daily Emissions (lb/dy)		
	VOC	NO_X	PM_{10}
Demolition	3	33	2
Site Preparation	4	42	20
Grading	5	50	11
Building Construction	26	250	52
Paving	1	14	1
Architectural Coating	472	4	8
Maximum Daily Emissions	**512**	**394**	**94**
PCAPCD Thresholds of Significance	**82**	**82**	**82**
Does Project Exceed Thresholds?	**Yes**	**Yes**	**Yes**

Notes: lb/day = pounds per day; VOC = volatile organic compounds; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PCAPCD = Placer County Air Pollution Control District.

Source: AECOM 2019; See Appendix X for detailed modeling assumptions, outputs, and results.

Operational Emissions

Summary of CalEEMod Modeled Maximum Daily Long-Term Operational Emissions of Criteria Air Pollutants and Precursors[1]

Emissions Source	Daily Emissions (lbs/day)		
	ROG	NO_X	PM_{10}
Area	38745	748	6437
Energy	26	227	18
Mobile[2]	167	1701	3609
Total Daily Operational Emissions[3]	**38937**	**2676**	**10064**
PCAPCD Thresholds of Significance	**55**	**55**	**82**
Does Project Exceed Thresholds?	**Yes**	**Yes**	**Yes**

Notes: lbs/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; PCAPCD = Placer County Air Pollution Control District.

[1] Operational emissions were modeled for full buildout year 2035.

[2] Mobile emissions are calculated outside of CalEEMod using EMFAC 2017 emissions rates and VMT from the Transportation Impact Analysis.

[3] Total emissions may not add correctly due to rounding.

Source: AECOM 2019; See Appendix X for detailed modeling assumptions, outputs, and results.

Criteria Air Pollutant Emissions

Construction-related Emissions

Max Single-Year Construction Scenario (2021)		Mitigated Maximum Daily Emissions (lb/dy)							
				PM10 Fugitive	PM10	PM10	PM2.5 Fugitive	PM2.5	PM2.5
Construction Phase		VOC	NOX	Dust	Exhaust	Total	Dust	Exhaust	Total
Demolition	*on-site*	0.4623	2.0032	0	0.0616	0.0616	0	0.0616	0.0616
	off-site	0.0563	0.0401	0.1232	0.00078	0.12398	0.0327	0.00072	0.03342
	Sub-total	*0.5186*	*2.0433*	*0.1232*	*0.06238*	*0.18558*	*0.0327*	*0.06232*	*0.09502*
Site Preparation	*on-site*	0.4656	2.0175	7.0485	0.0621	7.1106	3.873	0.0621	3.9351
	off-site	0.0676	0.0482	0.1479	0.00094	0.14884	0.0392	0.00087	0.04007
	Sub-total	*0.5332*	*2.0657*	*7.1964*	*0.06304*	*7.25944*	*3.9122*	*0.06297*	*3.97517*
Grading	*on-site*	0.7616	3.3	3.3826	0.1015	3.4841	1.4026	0.1015	1.5041
	off-site	0.0751	0.0535	0.1643	0.00104	0.16534	0.0436	0.00096	0.04456
	Sub-total	*0.8367*	*3.3535*	*3.5469*	*0.10254*	*3.64944*	*1.4462*	*0.10246*	*1.54866*
Building Construction	*on-site*	0.3278	2.2347	0	0.0408	0.0408	0	0.0408	0.0408
	off-site	24.1855	230.4032	50.0247	1.211	51.2357	13.5517	1.15	14.7017
	Sub-total	*24.5133*	*232.6379*	*50.0247*	*1.2518*	*51.2765*	*13.5517*	*1.1908*	*14.7425*
Paving	*on-site*	0.2805	1.2154	0	0.0374	0.0374	0	0.0374	0.0374
	off-site	0.0563	0.0401	0.1232	0.00078	0.12398	0.0327	0.00072	0.03342
	Sub-total	*0.3368*	*1.2555*	*0.1232*	*0.03818*	*0.16138*	*0.0327*	*0.03812*	*0.07082*
Architectural Coating	*on-site*	468.6668	0.1288	0	0.00396	0.00396	0	0.00396	0.00396
	off-site	3.4327	2.4455	7.5083	0.0477	7.556	1.9916	0.044	2.0356
	Sub-total	*472.0995*	*2.5743*	*7.5083*	*0.05166*	*7.55996*	*1.9916*	*0.04796*	*2.03956*
Total		**498.8381**	**243.9302**	**68.5227**	**1.5696**	**70.0923**	**20.9671**	**1.50463**	**22.47173**

Table x.x. Summary of Maximum Daily Construction Emissions:
Maximum Single-Year Construction Scenario (2021)

Construction Phase	Maximum Daily Emissions (lb/dy)		
	VOC	NO_X	PM_{10}
Demolition	0.5186	2.0433	0.18558
Site Preparation	0.5332	2.0657	7.25944
Grading	0.8367	3.3535	3.64944
Building Construction	24.5133	232.6379	51.2765
Paving	0.3368	1.2555	0.16138
Architectural Coating	472.0995	2.5743	7.55996
Maximum Daily Emissions	**472.0995**	**232.6379**	**51.2765**
PCAPCD Thresholds of Significance	**82**	**82**	**82**
Does Project Exceed Thresholds?	**Yes**	**Yes**	**No**

Notes: lb/day = pounds per day; VOC = volatile organic compounds; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PCAPCD = Placer County Air Pollution Control District.

Source: AECOM 2019; See Appendix X for detailed modeling assumptions, outputs, and results.

Operational Emissions - Mobile

Mobile Sources Annual Emissions of Planning Area in 2035 with Buildout of General Plan

		Emissions (tons/yr)						MT / Year
Land Use	**Annual VMT[1]**	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**	**CO_2e**
Total	3,755,740,500	64.80	661.33	2,079.92	11.35	1,403.23	382.90	1,071,197.85

[1] Annual VMT is based upon Roseville_GP_VMT_Summary dated 10Jan2020

Mobile Sources Average Daily Emissionsof Planning Area in 2035 with Buildout of General Plan

	Emissions (lb/dy)					
Land Use	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Total	355.07	3,623.70	11,396.80	62.19	7,688.95	2,098.08

Mobile Sources Annual Emissions of New Development in 2035 General Plan

		Emissions (tons/yr)						MT / Year
Land Use	**Annual VMT[1]**	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**	**CO_2e**
Total	1,762,950,000	30.42	310.43	976.32	5.33	658.68	179.73	502,821.81

[1] Annual VMT is based upon Roseville_GP_VMT_Summary dated 10Jan2020 for the Delta from Baseline to 2035 Cumultive + Project

Mobile Sources Average Daily Emissionsof New Development in General Plan

	Emissions (lb/dy)					
Land Use	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Total	166.67	1,700.97	5,349.68	29.19	3,609.21	984.84

Exhaust Emission Factors:

			Emission Factors (g/mile)						
Vehicle Type	**Year**	**Vehicle Class**	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}[1]**	**$PM_{2.5}$[1]**	**CO_2e**
Average Fleet	2035	Aggregate	0.016	0.160	0.502	0.003	0.054	0.023	285.213

[1] PM10 and PM2.5 are inclusive of BW and TW emissions

Source: EMFAC 2017

EMFAC 2017 Adjustment Factor: *Need to account for this (only applicable to light-duty vehicles (LDA, LDT1, LDT2, MDV)?*
https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf?utm_medium=email&utm_source=govdelivery

On-Road Fugitive Dust Emission Factors:

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

Source: AP-42 Section 13.2.1 (Paved Roads) - http://www.epa.gov/ttnchie1/ap42/ch13/final/c13s0201.pdf

EF (PM10)	0.00062755	lb/VMT
EF (PM2.5)	0.000154035	lb/VMT

Variable	Value	Description	
k (PM10)	0.0022	particle size multiplier for particle size rangeand units of interest (lb/VMT)	
k (PM2.5)	0.00054	particle size multiplier for particle size rangeand units of interest (lb/VMT)	
sL	0.1	road surface silt loading (g/m^2)	
W	2.4	average weight (tons) of vehicles (2.4 tons)	
P	74	number of "wet" days with at least 0.254 mm (0.1 inches) of precipitation during	*CalEEMod data for Placer-Sacramento
N	365	number of days in averaging period	

Conversion Factors:	
grams per pound:	*454*
pounds per ton:	*2,000*
pounds per metric ton:	*2,205*
days per year	*365*

Global Warming Potential[1]:	
CO2	1
CH4	28
N2O	265

[1]Per IPCC 5th Assessment Report (AR5)

Construction Energy Consumption

Maximum Annual Construction Scenario

Phase	Source	MT CO_2e/yr [a]	Fuel Type	Emission Factor (MT CO_2/gallon) [b]	Gallons/year
Demolition	Offroad Equip	445.10	Diesel	0.01016	43,809
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	13.23	Gas	0.008887	1,488
Site Prep	Offroad Equip	438.11	Diesel	0.01016	43,121
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	15.87	Gas	0.008887	1,786
Grading	Offroad Equip	714.02	Diesel	0.01016	70,278
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	17.63	Gas	0.008887	1,984
Building Construction	Offroad Equip	302.93	Diesel	0.01016	29,816
	Hauling	0.00	Diesel	0.01016	-
	Vendor	6621.61	Diesel	0.01016	651,733
	Worker	4029.23	Gas	0.008887	453,384
Paving	Offroad Equip	262.47	Diesel	0.01016	25,834
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	13.23	Gas	0.008887	1,488
Architectural Coating	Offroad Equip	33.26	Diesel	0.01016	3,273
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	805.85	Gas	0.008887	90,677
		Total		**Diesel**	**867,865**
				Gasoline	**550,807**

Notes:

Assumed amortization period is 30 years.

Sources:

[a] Modeled by AECOM in 2019;

[b] U.S. Energy Information Administration 2016 (https://www.eia.gov/environment/emissions/co2_vol_mass.php)

Amortization period (years):	30
Construction Buildout Period (years):	16

Factor:	MT/gallon
Diesel	1.02E-02
Gasoline	8.89E-03

Full Build-Out Scenario

Phase	Source	MT CO_2e [a]	Fuel Type	Emission Factor (MT CO_2/gallon) [b]	Gallons
Demolition	Offroad Equip	4451.01	Diesel	0.01016	438,092
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	132.25	Gas	0.008887	14,881
Site Prep	Offroad Equip	4381.13	Diesel	0.01016	431,213
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	158.70	Gas	0.008887	17,858
Grading	Offroad Equip	7140.23	Diesel	0.01016	702,778
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	176.33	Gas	0.008887	19,842
Building Construction	Offroad Equip	3029.29	Diesel	0.01016	298,159
	Hauling	0.00	Diesel	0.01016	-
	Vendor	66216.10	Diesel	0.01016	6,517,333
	Worker	40292.27	Gas	0.008887	4,533,844
Paving	Offroad Equip	2624.72	Diesel	0.01016	258,339
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	132.25	Gas	0.008887	14,881
Architectural Coating	Offroad Equip	332.57	Diesel	0.01016	32,733
	Hauling	0.00	Diesel	0.01016	-
	Vendor	0.00	Diesel	0.01016	-
	Worker	8058.45	Gas	0.008887	906,769
			Total Demand	**Diesel**	**8,678,646**
				Gasoline	**5,508,075**
			Amortized Annual Demands (over 30 years)	**Diesel**	**289,288**
				Gasoline	**183,602**
			Average Annual Demands (over 16 year Buildout Period)	**Diesel**	**542,415.40**
				Gasoline	**344,254.66**

Notes:

Total construction demand determined based upon 10 times the maximum annual construction year (assumed to be 10% of total buildout)

Assumed amortization period is 30 years.

Sources:

[a] Modeled by AECOM in 2019;

[b] U.S. Energy Information Administration 2016 (https://www.eia.gov/environment/emissions/co2_vol_mass.php)

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Placer (SV)
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Yea	Speed	Fuel	Population	VMT	% VMT	Trips	Fuel Consumption	Fuel Consumption per VMT (gallons per vehicle mile travelled)
Placer (SV)	2035	All Other Buses	Aggregate	Aggregate	DSL	35.5526	1785.566	0.002041	298.6419	0.167224826	0.093653706
Placer (SV)	2035	LDA	Aggregate	Aggregate	DSL	1418.863	48222.16	0.055127	6719.668	0.725496169	0.01504487
Placer (SV)	2035	LDT1	Aggregate	Aggregate	DSL	2.548698	81.99059	9.37E-05	11.35262	0.002416802	0.029476578
Placer (SV)	2035	LDT2	Aggregate	Aggregate	DSL	530.6868	19415.54	0.022196	2494.523	0.391569271	0.020167828
Placer (SV)	2035	LHD1	Aggregate	Aggregate	DSL	3436.262	108363.2	0.12388	43223.85	5.110709063	0.047162766
Placer (SV)	2035	LHD2	Aggregate	Aggregate	DSL	1341.059	41935.35	0.04794	16868.84	2.2269626	0.053104661
Placer (SV)	2035	MDV	Aggregate	Aggregate	DSL	1228.364	38751.05	0.0443	5696.152	1.040043371	0.026839104
Placer (SV)	2035	MH	Aggregate	Aggregate	DSL	358.3321	2669.469	0.003052	35.83321	0.245036142	0.091792081
Placer (SV)	2035	Motor Coach	Aggregate	Aggregate	DSL	13.19952	1574.104	0.001799	192.713	0.204506875	0.129919578
Placer (SV)	2035	PTO	Aggregate	Aggregate	DSL	0	6516.443	0.00745	0	1.053971784	0.161740349
Placer (SV)	2035	SBUS	Aggregate	Aggregate	DSL	225.371	7145.642	0.008169	2600.75	0.755590835	0.105741493
Placer (SV)	2035	T6 CAIRP heavy	Aggregate	Aggregate	DSL	26.06266	4460.069	0.005099	380.5148	0.305042397	0.068394103
Placer (SV)	2035	T6 CAIRP small	Aggregate	Aggregate	DSL	19.71602	875.8966	0.001001	287.8538	0.066971606	0.076460634
Placer (SV)	2035	T6 instate construction he	Aggregate	Aggregate	DSL	82.25659	5195.976	0.00594	371.8788	0.559121736	0.107606674
Placer (SV)	2035	T6 instate construction sm	Aggregate	Aggregate	DSL	552.4827	27465.62	0.031398	2497.753	2.690979784	0.09797629
Placer (SV)	2035	T6 instate heavy	Aggregate	Aggregate	DSL	1150.929	134248.8	0.153472	13281.56	10.22312433	0.076150581
Placer (SV)	2035	T6 instate small	Aggregate	Aggregate	DSL	3913.041	188910.3	0.21596	45155.95	15.5352838	0.082236282
Placer (SV)	2035	T6 OOS heavy	Aggregate	Aggregate	DSL	14.5074	2498.117	0.002856	211.808	0.170669424	0.068319228
Placer (SV)	2035	T6 OOS small	Aggregate	Aggregate	DSL	7.897747	347.2486	0.000397	115.3071	0.026618269	0.076654782
Placer (SV)	2035	T6 Public	Aggregate	Aggregate	DSL	393.8122	6139.243	0.007018	1194.564	0.670172301	0.109162044
Placer (SV)	2035	T6 utility	Aggregate	Aggregate	DSL	33.70568	562.2801	0.000643	387.6153	0.049123012	0.087363957
Placer (SV)	2035	T7 CAIRP	Aggregate	Aggregate	DSL	207.4169	43902.39	0.050189	3028.286	4.637676426	0.105636083
Placer (SV)	2035	T7 CAIRP construction	Aggregate	Aggregate	DSL	20.39027	3732.315	0.004267	92.18361	0.488789633	0.130961518
Placer (SV)	2035	T7 NNOOS	Aggregate	Aggregate	DSL	311.2435	53525.06	0.061189	4544.155	5.833752033	0.108991051
Placer (SV)	2035	T7 NOOS	Aggregate	Aggregate	DSL	82.45604	17234.09	0.019702	1203.858	1.866196958	0.10828523
Placer (SV)	2035	T7 other port	Aggregate	Aggregate	DSL	2.817993	443.7593	0.000507	21.41675	0.053939245	0.121550691
Placer (SV)	2035	T7 POAK	Aggregate	Aggregate	DSL	13.49755	2107.414	0.002409	102.5814	0.262060112	0.124351529
Placer (SV)	2035	T7 Public	Aggregate	Aggregate	DSL	298.2996	6043.071	0.006908	904.842	0.912132259	0.150938536
Placer (SV)	2035	T7 Single	Aggregate	Aggregate	DSL	414.3114	32818.11	0.037517	4781.096	4.125951085	0.125721776
Placer (SV)	2035	T7 single construction	Aggregate	Aggregate	DSL	124.3229	9259.187	0.010585	562.0591	1.394069316	0.150560662
Placer (SV)	2035	T7 SWCV	Aggregate	Aggregate	DSL	166.9187	6806.534	0.007781	650.9829	2.122717294	0.311864663
Placer (SV)	2035	T7 tractor	Aggregate	Aggregate	DSL	273.2711	32861.51	0.037567	3470.543	3.381170883	0.102891531
Placer (SV)	2035	T7 tractor construction	Aggregate	Aggregate	DSL	103.2217	7638.014	0.008732	466.6613	1.137064261	0.148869098
Placer (SV)	2035	T7 utility	Aggregate	Aggregate	DSL	6.457847	130.8456	0.00015	74.26524	0.017634234	0.134771271
Placer (SV)	2035	UBUS	Aggregate	Aggregate	DSL	106.5037	11080.4	0.012667	426.0149	1.328319314	0.119880113
							874746.8	1			
Placer (SV)	2035	LDA	Aggregate	Aggregate	ELEC	6629.065	252364.7		32009.11	0	0
Placer (SV)	2035	LDT1	Aggregate	Aggregate	ELEC	518.8695	19575.24		2498.44	0	0
Placer (SV)	2035	LDT2	Aggregate	Aggregate	ELEC	2015.07	52254.43		9681.928	0	0
Placer (SV)	2035	MDV	Aggregate	Aggregate	ELEC	1387.218	36372.11		6690.445	0	0
							360566.5				
Placer (SV)	2035	LDA	Aggregate	Aggregate	GAS	115557.8	3887645	0.506709	544977.5	92.16299073	0.023706636
Placer (SV)	2035	LDT1	Aggregate	Aggregate	GAS	17097.75	589347.1	0.076815	78699.61	16.28506063	0.027632377
Placer (SV)	2035	LDT2	Aggregate	Aggregate	GAS	55493.52	1924882	0.250886	256038.3	53.32862201	0.027704876
Placer (SV)	2035	LHD1	Aggregate	Aggregate	GAS	2974.297	98644.19	0.012857	44312.6	10.01867937	0.101563808
Placer (SV)	2035	LHD2	Aggregate	Aggregate	GAS	462.7912	15239.16	0.001986	6894.899	1.77535436	0.116499483
Placer (SV)	2035	MCY	Aggregate	Aggregate	GAS	7738.661	39709.56	0.005176	15477.32	1.067441569	0.026881223
Placer (SV)	2035	MDV	Aggregate	Aggregate	GAS	35780.23	1087699	0.141769	163100.7	37.5537363	0.034525846
Placer (SV)	2035	MH	Aggregate	Aggregate	GAS	557.9828	5055.704	0.000659	55.8206	0.892907288	0.176613849
Placer (SV)	2035	OBUS	Aggregate	Aggregate	GAS	83.63229	3119.149	0.000407	1673.315	0.541327217	0.173549658
Placer (SV)	2035	SBUS	Aggregate	Aggregate	GAS	45.07108	1687.541	0.00022	180.2843	0.155264239	0.092006213
Placer (SV)	2035	T6TS	Aggregate	Aggregate	GAS	341.6607	14676.98	0.001913	6835.947	2.528237999	0.172258749
Placer (SV)	2035	T7IS	Aggregate	Aggregate	GAS	1.253791	132.9878	1.73E-05	25.08585	0.024640588	0.185284588
Placer (SV)	2035	UBUS	Aggregate	Aggregate	GAS	55.98137	4501.1	0.000587	223.9255	0.875746585	0.194562775
							7672340	1			

Fuel	% VMT by Fuel Type	Weighted Ave Fuel Consumption per VMT
Gasoline	0.86132001	0.02831079
Diesel	0.098201712	0.079774063

*remaining 5% VMT is electric and not accounted for in fuel consumption calculation

Maximum Land Use Development in a Single Year

Buildout Duration (years)	16
Work Days in 1 year (5 days/week)	260
Max percent of total land use development in a single year:	10%

Proposed Land Uses

LandUseType	LandUseSubType	Total General Plan Land Use (Existing + Proposed Buildout)	Additional LandUseUnitAmount under the General Plan Buildout	LandUseSizeMetric	Additional LotAcreage in General Plan Buildout	Additional LandUseSquareFeet in General Plan Buildout	Additional Population in General Plan Buildout	10% of Porposed Additional Land Use Unit Amount	10% of Proposed Additional Acreage	Additional Population with 10% Buildout
Residential	Single Family Housing	50,403 (population = 146,169)	14,288.00	Dwelling Units	4638.96	25,718,400	41435	1429	463.896	4143.5
Residential	Apartments Low Rise	20538 (population = 43,130)	9,008.00	Dwelling Units	563	900,800	18917	901	56.3	1891.7
Residential	Retirement Community	4245 (population = 7,981)	905.00	Dwelling Units	181	905,000	1701	91	18.2	170.1
Retail	Strip Mall	18,677	8,904.70	Thousand Square Feet (KSF)	204.42	8,904,700		890.47	20.442	
Retail	Regional Shopping Center	1,755	572.20	Thousand Square Feet (KSF)	13.14	572,200		57.22	1.314	
Commercial	Office Park	13,352	6,152.10	Thousand Square Feet (KSF)	141.23	6,152,100		615.21	14.123	
Industrial	Industrial Park	13,208	6,818.80	Thousand Square Feet (KSF)	156.54	6,818,800		681.88	15.654	
Industrial	General Light Industry	5,025	2,649.20	Thousand Square Feet (KSF)	60.82	2,649,200		264.92	6.082	
Recreational	Arena	0	0	Thousand Square Feet (KSF)				0	0	
Educational	Place of Worship	1,006	266.30	Thousand Square Feet (KSF)	6.11	26,300		26.63	0.611	
Recreational	Motel	49	0	Thousand Square Feet (KSF)				0	0	
Commercial	Medical Office Building	1,007	86.50	Thousand Square Feet (KSF)	1.99	86,500		8.65	0.199	
Commercial	Hospital	1,803	0	Thousand Square Feet (KSF)				0	0	
Residential	Congregate Care (Assisted l	340 (population = 972)	60.80	Thousand Square Feet (KSF) (61 dwelling units in CalEEMod)	3.8	60,800	174	6	0.38	17.4
Recreational	Hotel	1,862	388.00	Thousand Square Feet (KSF) *(268 rooms in CalEEMod)*	8.9	387,684		27	0.9	
Commercial	Government Civic Center	1,771	1,012.70	Thousand Square Feet (KSF)	23.25	1,012,700		101.27	2.325	
Commercial	Government Civic Center	0	0.00	Thousand Square Feet (KSF)				0	0	
Educational	Elementary School	32,422	9,800.00	Students	18.81	819,313		980	1.881	
Recreational	Golf Course	812	0	Acres				0	0	
Recreational	City Park	1,450	307.30	Acres	307.3	13,385,988		30.73	30.73	
Recreational	City Park		0	Acres				0	0	
Recreational	Arena	34	4.60	Acres	4.6	200,376		0.46	0.46	
~~Educational~~	~~Junior College~~	~~0~~	~~0~~	~~Students~~				~~0~~	~~0~~	
				Total	**6333.87**	**68,600,861**	**62,227**	**6,111**	**633**	**6,223**

Total Square Feet of Land Use Development in Planning Area with Buildout	278087217

Roseville Electric Power Mix & GHG Emission Factor

2016

Electricity Portofilo	Roseville Electric
Eligibile Renewables	32%
Coal	0%
Large Hydro	14%
Natural Gas	33%
Nuclear	0%
Other	0%
Unspecified	21%
Total	**100%**
Total Renewable	46%
Total Coal	0%
Total "Gas"	54%
Emissions Factors	**Roseville Electric**
lb CO2e/MWh	509.94
MT CO2e/MWh	0.231

2017

Electricity Portofilo	Roseville Electric
Eligibile Renewables	28%
Coal	0%
Large Hydro	29%
Natural Gas	3%
Nuclear	0%
Other	0%
Unspecified	40%
Total	**100%**
Total Renewable	57%
Total Coal	0%
Total "Gas"	43%

2018

Electricity Portofilo	Roseville Electric
Eligibile Renewables	40%
Coal	0%
Large Hydro	13%
Natural Gas	22%
Nuclear	0%
Other	0%
Unspecified	25%
Total	**100%**
Total Renewable	53%
Total Coal	0%
Total "Gas"	47%

Total Gas calculation assumes 'unspecified' is combined cycle natural gas generation.

Electricity Portfolio Sources:

CEC Power Content Labels https://ww2.energy.ca.gov/pcl/2016_labels/Roseville.html

Emissions Factor Sources:

Emissions factors from Brian Zard email to Josh Lathan on

Conversion Factor

MT/lbs
0.000453592

Land Use Baseline and GP Update Type and Size

Region	Scenario	Total TAZ	SFDU	MFDU	ARDU	RET	MALL	OFF	IND	HTI	CC	CHURCH	LODGE	MED	HOSP	CONV	HOTEL	PQPL	PQPH	SCHOOL	GOLF	PARK	CEM	FAIR	UNIV
	Base	1,113	97,548	21,133	10,084	18,285	1,183	10,066	20,257	2,376	0	1,844	317	1,413	1,988	1,219	2,430	514	2,247	65,531	3,104	1,779	200	29	21,107
	GP Update	1,344	149,766	50,507	13,532	39,913	1,755	25,856	35,711	6,129	0	2,957	315	2,027	2,153	1,456	3,837	1,108	3,307	109,781	3,111	2,621	210	39	76,410
Roseville	Base	402	36,115	11,530	3,340	9,772	1,183	7,200	6,389	2,376	0	740	50	921	1,863	279	1,474	183	576	22,622	812	1,123	20	29	3,007
	GP Update	505	50,403	20,538	4,245	18,677	1,755	13,352	13,208	5,025	0	1,006	49	1,007	1,803	340	1,862	409	1,362	32,422	812	1,430	20	34	0
	Delta = new construction	103.00	14,288.00	9,008.00	905.00	8,904.70	572.20	6,152.10	6,818.80	2,649.20	0.00	266.30	-1.20	86.50	-60.20	60.80	388.00	226.50	786.20	9,800.00	0.30	307.30	-0.10	4.60	-3,007.00
	In a year	10.30	1,429.00	901.00	91.00	890.47	57.22	615.21	681.88	264.92	0.00	26.63	-0.12	8.65	-6.02	6.08	38.80	22.65	78.62	980.00	0.03	30.73	-0.01	0.46	-301.00
	Linear (to 2035)	6.44	893.00	563.00	56.56	556.54	35.76	384.51	426.18	165.58	0.00	16.64	-0.08	5.41	-3.76	3.80	24.25	14.16	49.14	613.00	0.02	19.21	-0.01	0.29	-188.00
	Units		DU	DU	Du	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	KSF	Students	Acres	Acres	Acres	Acres	Students
	Land Use Description		Single Family DU	Multi-Family DU	Age-Restricted DU	Retail	Mall	Office	Industrial	High-Tech Industrial	Convention Center	Church/Worship Center	Lodging	Medical Office/Clinic	Hospital	Convalescent Home	Hotel Rooms	Public/Quasi-Public Low	Public/Quasi-Public High	School (K-12)	Golf Course	Park	Cemetery	Fairgrounds	University
	CalEEMod Land Use Type		Residential	Residential	Residential	Retail	Retail	Commercial	Industrial	Industrial	Recreational	Educational	Recreational	Commercial	Commercial	Residential	Recreational	Commercial	Commercial	Educational	Recreational	Recreational	Recreational	Recreational	Educational
	CalEEMod Land Use Subtype		Single Family Housing	Apartments Low Rise	Retirement Community	Strip Mall	Regional Shopping Center	Office Park	Industrial Park	General Light Industry	Arena	Place of Worship	Motel	Medical Office Building	Hospital	Congregate Care (Assisted Living)	Hotel	Government Civic Center	Government Civic Center	Elementary School	Golf Course	City Park	City Park	Arena	Junior College

Final Buildout Year	2035
Construction Start Year	2020
Total Construction Duration for	16
Maximum annual construction (	10%

*Notes: DU = Dwelling Units; KSF = Thousand Square Feet

Average Household Size	
Single-Family Units	2.9
Multi-Family Units	2.1
Age-Restricted	1.88

Added Population Estimates:

LandUse Baseline_GPU Type	CalEEMod Land Use	Size	Units	Lot Acreage	Land Use Square Feet	Population	Assumption
Single Family	Single Family Housing	14,288	DU	4638.96	25,718,400	41,435	2.9 persons per dwelling unit
Multi-Family	Apartments Low Rise	9,008	DU	563	900,800	18,917	2.1 persons per dwelling unit
Age-Restricted	Retirement Community	905	DU	181	905,000	1,701	1.88 persons per dwelling unit
Convalescent Home	Congregate Care (Assisted Living)	60.8	KSF	3.8	60,800	174	350 square feet per resident
						62,227	

Total Population Estimates (Existing + Buildout):

LandUse Baseline_GPU Type	CalEEMod Land Use	Size	Units	Lot Acreage	Land Use Square Feet	Population	Assumption
Single Family	Single Family Housing	50,403	DU	16,364.61	90,725,400	146,169	2.9 persons per dwelling unit
Multi-Family	Apartments Low Rise	20,538	DU	1,283.63	20,538,000	43,130	2.1 persons per dwelling unit
Age-Restricted	Retirement Community	4245	DU	849.00	4,245,000	7,981	1.88 persons per dwelling unit
Convalescent Home	Congregate Care (Assisted Living)	340	KSF	21.24	340,000	972	350 square feet per resident
						198,251	

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Sub-Area
Region: Placer (SV)
Calendar Year: 2035
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 Y	Vehicle Ca	Model Yea	Speed	Fuel	Populatior	VMT	Trips	ROG_RUN	ROG_IDLE	ROG_STRE	ROG_HOT	ROG_RUN	ROG_REST	ROG_DIUR
Placer (SV)	2035	All Other E	Aggregate	Aggregate	DSL	35.5526	1785.566	298.6419	0.010798	0.049332	0	0	0	0	0
Placer (SV)	2035	LDA	Aggregate	Aggregate	GAS	115557.8	3887645	544977.5	0.002392	0	0.092174	0.049292	0.164862	0.090338	0.12007
Placer (SV)	2035	LDA	Aggregate	Aggregate	DSL	1418.863	48222.16	6719.668	0.004752	0	0	0	0	0	0
Placer (SV)	2035	LDA	Aggregate	Aggregate	ELEC	6629.065	252364.7	32009.11	0	0	0	0.004888	0	0.007655	0.025178
Placer (SV)	2035	LDT1	Aggregate	Aggregate	GAS	17097.75	589347.1	78699.61	0.002857	0	0.112138	0.074809	0.290567	0.159368	0.207142
Placer (SV)	2035	LDT1	Aggregate	Aggregate	DSL	2.548698	81.99059	11.35262	0.017398	0	0	0	0	0	0
Placer (SV)	2035	LDT1	Aggregate	Aggregate	ELEC	518.8695	19575.24	2498.44	0	0	0	0.004888	0	0.007655	0.025178
Placer (SV)	2035	LDT2	Aggregate	Aggregate	GAS	55493.52	1924882	256038.3	0.003355	0	0.137328	0.073952	0.28521	0.202667	0.248139
Placer (SV)	2035	LDT2	Aggregate	Aggregate	DSL	530.6868	19415.54	2494.523	0.013381	0	0	0	0	0	0
Placer (SV)	2035	LDT2	Aggregate	Aggregate	ELEC	2015.07	52254.43	9681.928	0	0	0	0.004888	0	0.007655	0.025178
Placer (SV)	2035	LHD1	Aggregate	Aggregate	GAS	2974.297	98644.19	44312.6	0.012052	0.329934	0.066196	0.089471	0.486547	0.020502	0.04508
Placer (SV)	2035	LHD1	Aggregate	Aggregate	DSL	3436.262	108363.2	43223.85	0.138978	0.10976	0	0	0	0	0
Placer (SV)	2035	LHD2	Aggregate	Aggregate	GAS	462.7912	15239.16	6894.899	0.007994	0.328726	0.055977	0.064828	0.331802	0.017489	0.035349
Placer (SV)	2035	LHD2	Aggregate	Aggregate	DSL	1341.059	41935.35	16868.84	0.135206	0.10976	0	0	0	0	0
Placer (SV)	2035	MCY	Aggregate	Aggregate	GAS	7738.661	39709.56	15477.32	2.121704	0	1.89639	0.803273	1.376879	1.248792	2.68458
Placer (SV)	2035	MDV	Aggregate	Aggregate	GAS	35780.23	1087699	163100.7	0.004678	0	0.163284	0.103336	0.336211	0.298493	0.367145
Placer (SV)	2035	MDV	Aggregate	Aggregate	DSL	1228.364	38751.05	5696.152	0.005843	0	0	0	0	0	0
Placer (SV)	2035	MDV	Aggregate	Aggregate	ELEC	1387.218	36372.11	6690.445	0	0	0	0.004888	0	0.007655	0.025178
Placer (SV)	2035	MH	Aggregate	Aggregate	GAS	557.9828	5055.704	55.8206	0.01377	0	0.106172	0.038392	0.453605	0.020823	0.064209
Placer (SV)	2035	MH	Aggregate	Aggregate	DSL	358.3321	2669.469	35.83321	0.108855	0	0	0	0	0	0
Placer (SV)	2035	Motor Coa	Aggregate	Aggregate	DSL	13.19952	1574.104	192.713	0.018515	3.994912	0	0	0	0	0
Placer (SV)	2035	OBUS	Aggregate	Aggregate	GAS	83.63229	3119.149	1673.315	0.017435	0.749934	0.127712	0.027902	0.320563	0.01678	0.049937
Placer (SV)	2035	PTO	Aggregate	Aggregate	DSL	0	6516.443	0	0.025296	0	0	0	0	0	0
Placer (SV)	2035	SBUS	Aggregate	Aggregate	GAS	45.07108	1687.541	180.2843	0.012021	10.64152	0.296908	0.054604	0.379002	0.01108	0.033273
Placer (SV)	2035	SBUS	Aggregate	Aggregate	DSL	225.371	7145.642	2600.75	0.061147	0.266885	0	0	0	0	0
Placer (SV)	2035	T6 CAIRP h	Aggregate	Aggregate	DSL	26.06266	4460.069	380.5148	0.007762	0.049332	0	0	0	0	0
Placer (SV)	2035	T6 CAIRP s	Aggregate	Aggregate	DSL	19.71602	875.8966	287.8538	0.007881	0.049332	0	0	0	0	0
Placer (SV)	2035	T6 instate	Aggregate	Aggregate	DSL	82.25659	5195.976	371.8788	0.018327	0.049319	0	0	0	0	0
Placer (SV)	2035	T6 instate	Aggregate	Aggregate	DSL	552.4827	27465.62	2497.753	0.014928	0.049333	0	0	0	0	0
Placer (SV)	2035	T6 instate	Aggregate	Aggregate	DSL	1150.929	134248.8	13281.56	0.008982	0.049332	0	0	0	0	0
Placer (SV)	2035	T6 instate	Aggregate	Aggregate	DSL	3913.041	188910.3	45155.95	0.008883	0.049332	0	0	0	0	0
Placer (SV)	2035	T6 OOS he	Aggregate	Aggregate	DSL	14.5074	2498.117	211.808	0.007753	0.049332	0	0	0	0	0
Placer (SV)	2035	T6 OOS sm	Aggregate	Aggregate	DSL	7.897747	347.2486	115.3071	0.007907	0.049332	0	0	0	0	0
Placer (SV)	2035	T6 Public	Aggregate	Aggregate	DSL	393.8122	6139.243	1194.564	0.019351	0.260189	0	0	0	0	0
Placer (SV)	2035	T6 utility	Aggregate	Aggregate	DSL	33.70568	562.2801	387.6153	0.007268	0.13558	0	0	0	0	0
Placer (SV)	2035	T6TS	Aggregate	Aggregate	GAS	341.6607	14676.98	6835.947	0.012887	1.028119	0.152085	0.048685	0.237183	0.013101	0.026686
Placer (SV)	2035	T7 CAIRP	Aggregate	Aggregate	DSL	207.4169	43902.39	3028.286	0.019958	10.43423	0	0	0	0	0
Placer (SV)	2035	T7 CAIRP c	Aggregate	Aggregate	DSL	20.39027	3732.315	92.18361	0.035307	1.594405	0	0	0	0	0
Placer (SV)	2035	T7 NNOOS	Aggregate	Aggregate	DSL	311.2435	53525.06	4544.155	0.018629	12.95028	0	0	0	0	0
Placer (SV)	2035	T7 NOOS	Aggregate	Aggregate	DSL	82.45604	17234.09	1203.858	0.019985	12.95028	0	0	0	0	0
Placer (SV)	2035	T7 other p	Aggregate	Aggregate	DSL	2.817993	443.7593	21.41675	0.029031	1.641997	0	0	0	0	0
Placer (SV)	2035	T7 POAK	Aggregate	Aggregate	DSL	13.49755	2107.414	102.5814	0.029381	2.621748	0	0	0	0	0
Placer (SV)	2035	T7 Public	Aggregate	Aggregate	DSL	298.2996	6043.071	904.842	0.055487	1.147128	0	0	0	0	0
Placer (SV)	2035	T7 Single	Aggregate	Aggregate	DSL	414.3114	32818.11	4781.096	0.01784	2.186104	0	0	0	0	0
Placer (SV)	2035	T7 single c	Aggregate	Aggregate	DSL	124.3229	9259.187	562.0591	0.03263	1.591715	0	0	0	0	0
Placer (SV)	2035	T7 SWCV	Aggregate	Aggregate	DSL	166.9187	6806.534	650.9829	0.029759	1.444922	0	0	0	0	0
Placer (SV)	2035	T7 tractor	Aggregate	Aggregate	DSL	273.2711	32861.51	3470.543	0.018389	1.879641	0	0	0	0	0
Placer (SV)	2035	T7 tractor	Aggregate	Aggregate	DSL	103.2217	7638.014	466.6613	0.037574	1.593727	0	0	0	0	0
Placer (SV)	2035	T7 utility	Aggregate	Aggregate	DSL	6.457847	130.8456	74.26524	0.015734	0.635427	0	0	0	0	0
Placer (SV)	2035	T7IS	Aggregate	Aggregate	GAS	1.253791	132.9878	25.08585	0.302296	0	0.001408	0.044345	0.220057	0.012938	0.026113
Placer (SV)	2035	UBUS	Aggregate	Aggregate	GAS	55.98137	4501.1	223.9255	0.021063	0	0.492757	0.041263	0.240993	0.007786	0.017429
Placer (SV)	2035	UBUS	Aggregate	Aggregate	DSL	106.5037	11080.4	426.0149	0.000797	0	0	0	0	0	0
Placer (SV)	2035	UBUS	Aggregate	Aggregate	NG	29.58437	3077.888	118.3375	0.063722	0	0	0	0	0	0

Vehicle Ca	Fuel	TOG_RUN	TOG_IDLE	TOG_STRE	TOG_HOT	TOG_RUN	TOG_REST	TOG_DIUR	CO_RUNE	CO_IDLEX	CO_STREX	NOx_RUN	NOx_IDLE	NOx_STRE	CO2_RUN	CO2_IDLE	CO2_STRE	CH4_RUN	CH4_IDLE	CH4_STRE
All Other E	DSL	0.012293	0.056161	0	0	0	0	0	0.139244	2.088954	0	2.090915	2.855497	2.214387	942.0376	565.778	0	0.000502	0.002291	0
LDA	GAS	0.003491	0	0.100919	0.049292	0.164862	0.090338	0.12007	0.424776	0	1.591123	0.018225	0	0.117718	197.9706	0	41.21681	0.000774	0	0.023732
LDA	DSL	0.00541	0	0	0	0	0	0	0.13843	0	0	0.012635	0	0	153.142	0	0	0.000221	0	0
LDA	ELEC	0	0	0	0.004888	0	0.007655	0.025178	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	GAS	0.004169	0	0.122777	0.074809	0.290567	0.159368	0.207142	0.4424	0	1.692967	0.020449	0	0.137262	230.9207	0	49.18407	0.000892	0	0.027629
LDT1	DSL	0.019806	0	0	0	0	0	0	0.181699	0	0	0.127675	0	0	300.0426	0	0	0.000808	0	0
LDT1	ELEC	0	0	0	0.004888	0	0.007655	0.025178	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	GAS	0.004895	0	0.150357	0.073952	0.28521	0.202667	0.248139	0.492271	0	2.134643	0.020184	0	0.141588	231.3485	0	50.845	0.001063	0	0.033681
LDT2	DSL	0.015233	0	0	0	0	0	0	0.136877	0	0	0.029432	0	0	205.2887	0	0	0.000622	0	0
LDT2	ELEC	0	0	0	0.004888	0	0.007655	0.025178	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	GAS	0.017586	0.481439	0.072476	0.089471	0.486547	0.020502	0.04508	0.253082	3.773629	1.516885	0.079212	0.02875	0.363355	862.1073	106.8111	16.85163	0.003166	0.09732	0.014043
LHD1	DSL	0.158218	0.124954	0	0	0	0	0	0.660739	0.909745	0	0.716753	1.481492	0	476.2776	119.6163	0	0.006455	0.005098	0
LHD2	GAS	0.011665	0.479676	0.061288	0.064828	0.331802	0.017489	0.035349	0.170649	3.780518	1.411699	0.065234	0.028624	0.360616	988.9115	122.7507	19.0616	0.00237	0.098195	0.012437
LHD2	DSL	0.153923	0.124954	0	0	0	0	0	0.646469	0.909745	0	0.552776	1.456975	0	534.4164	191.9036	0	0.00628	0.005098	0
MCY	GAS	2.654377	0	2.065123	0.803273	1.376879	1.248792	2.68458	17.35823	0	9.363747	1.136335	0	0.269341	207.7511	0	59.73273	0.315846	0	0.247278
MDV	GAS	0.006826	0	0.178776	0.103336	0.336211	0.298493	0.367145	0.532623	0	2.234644	0.026783	0	0.162799	287.2777	0	63.06969	0.001343	0	0.037856
MDV	DSL	0.006651	0	0	0	0	0	0	0.163038	0	0	0.015134	0	0	273.1957	0	0	0.000271	0	0
MDV	ELEC	0	0	0	0.004888	0	0.007655	0.025178	0	0	0	0	0	0	0	0	0	0	0	0
MH	GAS	0.020093	0	0.116245	0.038392	0.453605	0.020823	0.064209	0.231663	0	2.257556	0.135059	0	0.39072	1517.676	0	22.20224	0.004506	0	0.028685
MH	DSL	0.123924	0	0	0	0	0	0	0.367533	0	0	3.708801	0	0	934.3533	0	0	0.005056	0	0
Motor Coa	DSL	0.021078	4.547903	0	0	0	0	0	0.172056	59.0281	0	1.881471	47.20762	2.229987	1245.782	9143.424	0	0.00086	0.185553	0
OBUS	GAS	0.025442	1.094302	0.139828	0.027902	0.320563	0.01678	0.049937	0.335141	5.796677	2.538075	0.138725	0.065306	0.306217	1470.705	329.9705	22.42988	0.004257	0.19944	0.025395
PTO	DSL	0.028797	0	0	0	0	0	0	0.405353	0	0	4.562671	0	0	1646.358	0	0	0.001175	0	0
SBUS	GAS	0.017542	15.52808	0.325077	0.054604	0.379002	0.01108	0.033273	0.202385	82.24088	7.417871	0.114226	0.92653	0.477224	727.4955	2203.343	41.29533	0.002722	2.410246	0.05232
SBUS	DSL	0.069611	0.303829	0	0	0	0	0	0.214886	8.5091	0	3.193018	29.64875	1.451233	972.9682	3277.668	0	0.00284	0.012396	0
T6 CAIRP h	DSL	0.008836	0.056161	0	0	0	0	0	0.06433	2.088954	0	0.91848	2.855497	1.31518	693.2816	496.8328	0	0.000361	0.002291	0
T6 CAIRP s	DSL	0.008972	0.056161	0	0	0	0	0	0.065313	2.088954	0	0.944544	2.855497	1.315365	767.1512	495.0368	0	0.000366	0.002291	0
T6 instate	DSL	0.020864	0.056146	0	0	0	0	0	0.211607	2.083795	0	2.557335	2.884863	2.655787	1086.414	563.1988	0	0.000851	0.002291	0
T6 instate	DSL	0.016994	0.056161	0	0	0	0	0	0.186206	2.088558	0	2.092493	2.85758	2.6844	986.7217	526.0047	0	0.000693	0.002291	0
T6 instate	DSL	0.010225	0.056161	0	0	0	0	0	0.102205	2.088954	0	1.446174	2.855497	2.139644	770.6538	523.0805	0	0.000417	0.002291	0
T6 instate	DSL	0.010112	0.056161	0	0	0	0	0	0.101074	2.088954	0	1.419069	2.855497	2.141541	826.4758	512.1644	0	0.000413	0.002291	0
T6 OOS he	DSL	0.008827	0.056161	0	0	0	0	0	0.064257	2.088954	0	0.916311	2.855497	1.315217	692.5423	495.9889	0	0.00036	0.002291	0
T6 OOS sm	DSL	0.009001	0.056161	0	0	0	0	0	0.065527	2.088954	0	0.951544	2.855497	1.31518	768.9684	496.9289	0	0.000367	0.002291	0
T6 Public	DSL	0.022029	0.296206	0	0	0	0	0	0.127297	10.26055	0	1.698747	18.0764	2.892835	930.31	2819.357	0	0.000899	0.012085	0
T6 utility	DSL	0.008274	0.154348	0	0	0	0	0	0.085066	5.74113	0	0.942804	7.847841	1.971911	807.6738	1361.349	0	0.000338	0.006297	0
T6TS	GAS	0.018805	1.500229	0.166514	0.048685	0.237183	0.013101	0.026686	0.234014	15.29555	3.054785	0.10246	0.089524	0.326679	1455.323	456.2143	31.23557	0.003321	0.274581	0.031114
T7 CAIRP	DSL	0.02272	11.87857	0	0	0	0	0	0.185464	154.1743	0	2.063772	123.3006	2.233176	978.1012	20567.36	0	0.000927	0.484643	0
T7 CAIRP c	DSL	0.040195	1.815109	0	0	0	0	0	0.491928	23.55864	0	4.002116	18.84098	4.565374	1316.09	3106.166	0	0.00164	0.074056	0
T7 NNOOS	DSL	0.021208	14.74291	0	0	0	0	0	0.17312	191.351	0	1.861994	153.0327	2.233405	963.4826	25097.42	0	0.000865	0.601507	0
T7 NOOS	DSL	0.022752	14.74291	0	0	0	0	0	0.18572	191.351	0	2.068443	153.0327	2.233117	979.8398	25582.24	0	0.000928	0.601507	0
T7 other p	DSL	0.033049	1.869289	0	0	0	0	0	0.414427	24.26185	0	3.994307	19.40337	1.786372	1216.712	3236.819	0	0.001348	0.076267	0
T7 POAK	DSL	0.033448	2.984661	0	0	0	0	0	0.419423	38.73848	0	4.062436	30.98104	1.786372	1232.563	5185.689	0	0.001365	0.121773	0
T7 Public	DSL	0.063168	1.305918	0	0	0	0	0	0.303576	15.4934	0	4.143594	20.67321	4.439152	1402.751	2707.642	0	0.002577	0.053281	0
T7 Single	DSL	0.020309	2.488713	0	0	0	0	0	0.218114	32.30148	0	2.128234	25.83305	3.625568	1221.243	4632.343	0	0.000829	0.101539	0
T7 single c	DSL	0.037146	1.812047	0	0	0	0	0	0.432124	23.50923	0	3.332707	18.86767	4.532952	1486.404	3437.545	0	0.001516	0.073931	0
T7 SWCV	DSL	0.033878	1.644934	0	0	0	0	0	0.07925	20.2766	0	1.865904	22.72213	4.928451	3093.936	3284.25	0	0.001382	0.067113	0
T7 tractor	DSL	0.020934	2.139828	0	0	0	0	0	0.15913	27.77323	0	1.835003	22.2116	1.870108	1014.136	3992.244	0	0.000854	0.087304	0
T7 tractor	DSL	0.042775	1.814337	0	0	0	0	0	0.516235	23.54414	0	4.295398	18.8502	4.548944	1469.734	3374.792	0	0.001745	0.074024	0
T7 utility	DSL	0.017912	0.723385	0	0	0	0	0	0.205053	9.388957	0	1.75135	7.508802	3.320832	1303.432	1386.027	0	0.000731	0.029514	0
T7IS	GAS	0.44111	0	0.001542	0.044345	0.220057	0.012938	0.026113	28.89756	0	5.043322	3.008323	0	0.006834	1585.325	0	37.73186	0.068736	0	0.000272
UBUS	GAS	0.030735	0	0.539507	0.041263	0.240993	0.007786	0.017429	0.343834	0	8.436673	0.263473	0	0.823343	1668.348	0	77.11405	0.006323	0	0.114833
UBUS	DSL	0.055	0	0	0	0	0	0	0.087785	0	0	0.615161	0	0	1220.262	0	0	0.053861	0	0
UBUS	NG	4.549648	0	0	0	0	0	0	33.08052	0	0	0.372977	0	0	1609.735	0	0	4.457903	0	0

Vehicle Ca	Fuel	PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	PM2_5_RU	PM2_5_ID	PM2_5_ST	PM2_5_PM	PM2_5_PM	SOx_RUNE	SOx_IDLEX	SOx_STREX	N2O_RUN	N2O_IDLE	N2O_STREX
All Other E	DSL	0.005689	0.000713	0	0.012	0.13034	0.005443	0.000682	0	0.003	0.05586	0.0089	0.005345	0	0.148075	0.088932	0
LDA	GAS	0.000667	0	0.000977	0.008	0.03675	0.000614	0	0.000898	0.002	0.01575	0.001959	0	0.000408	0.002965	0	0.018866
LDA	DSL	0.001202	0	0	0.008	0.03675	0.00115	0	0	0.002	0.01575	0.001448	0	0	0.024072	0	0
LDA	ELEC	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0
LDT1	GAS	0.000739	0	0.001138	0.008	0.03675	0.000679	0	0.001046	0.002	0.01575	0.002285	0	0.000487	0.003182	0	0.020894
LDT1	DSL	0.006893	0	0	0.008	0.03675	0.006594	0	0	0.002	0.01575	0.002836	0	0	0.047163	0	0
LDT1	ELEC	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0
LDT2	GAS	0.000713	0	0.001073	0.008	0.03675	0.000656	0	0.000986	0.002	0.01575	0.002289	0	0.000503	0.003091	0	0.021322
LDT2	DSL	0.004215	0	0	0.008	0.03675	0.004032	0	0	0.002	0.01575	0.001941	0	0	0.032269	0	0
LDT2	ELEC	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0
LHD1	GAS	0.002195	0	0.000329	0.008	0.07644	0.002019	0	0.000302	0.002	0.03276	0.008531	0.001057	0.000167	0.005879	0.002703	0.032612
LHD1	DSL	0.014619	0.027182	0	0.012	0.07644	0.013987	0.026006	0	0.003	0.03276	0.004503	0.001131	0	0.074864	0.018802	0
LHD2	GAS	0.002073	0	0.000297	0.008	0.08918	0.001906	0	0.000274	0.002	0.03822	0.009786	0.001215	0.000189	0.005708	0.002693	0.032455
LHD2	DSL	0.019812	0.027405	0	0.012	0.08918	0.018955	0.026219	0	0.003	0.03822	0.005052	0.001814	0	0.084003	0.030165	0
MCY	GAS	0.002135	0	0.002713	0.004	0.01176	0.001991	0	0.002535	0.001	0.00504	0.002056	0	0.000591	0.06519	0	0.015161
MDV	GAS	0.000759	0	0.001133	0.008	0.03675	0.000698	0	0.001042	0.002	0.01575	0.002843	0	0.000624	0.003467	0	0.022512
MDV	DSL	0.001637	0	0	0.008	0.03675	0.001566	0	0	0.002	0.01575	0.002583	0	0	0.042943	0	0
MDV	ELEC	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0
MH	GAS	0.001334	0	0.000283	0.012	0.13034	0.001227	0	0.000261	0.003	0.05586	0.015019	0	0.00022	0.013877	0	0.044348
MH	DSL	0.073757	0	0	0.016	0.13034	0.070567	0	0	0.004	0.05586	0.008833	0	0	0.146867	0	0
Motor Coa	DSL	0.0239	0.017002	0	0.012	0.13034	0.022866	0.016266	0	0.003	0.05586	0.01177	0.086383	0	0.19582	1.437219	0
OBUS	GAS	0.001349	0	0.000268	0.012	0.13034	0.00124	0	0.000246	0.003	0.05586	0.014554	0.003265	0.000222	0.01054	0.005724	0.025792
PTO	DSL	0.004792	0	0	0	0	0.004585	0	0	0	0	0.015554	0	0	0.258785	0	0
SBUS	GAS	0.001549	0	0.000703	0.008	0.7448	0.001424	0	0.000647	0.002	0.3192	0.007199	0.021804	0.000409	0.011336	0.095585	0.047705
SBUS	DSL	0.025546	0.017889	0	0.012	0.7448	0.024441	0.017116	0	0.003	0.3192	0.009192	0.030966	0	0.152937	0.515204	0
T6 CAIRP h	DSL	0.009854	0.000713	0	0.012	0.13034	0.009428	0.000682	0	0.003	0.05586	0.00655	0.004694	0	0.108974	0.078095	0
T6 CAIRP s	DSL	0.010246	0.000713	0	0.012	0.13034	0.009803	0.000682	0	0.003	0.05586	0.007248	0.004677	0	0.120585	0.077813	0
T6 instate	DSL	0.011674	0.000756	0	0.012	0.13034	0.011169	0.000724	0	0.003	0.05586	0.010264	0.005321	0	0.170769	0.088527	0
T6 instate	DSL	0.008739	0.000715	0	0.012	0.13034	0.008361	0.000684	0	0.003	0.05586	0.009322	0.004969	0	0.155099	0.082681	0
T6 instate	DSL	0.006816	0.000713	0	0.012	0.13034	0.006521	0.000682	0	0.003	0.05586	0.007281	0.004942	0	0.121136	0.082221	0
T6 instate	DSL	0.006642	0.000713	0	0.012	0.13034	0.006354	0.000682	0	0.003	0.05586	0.007808	0.004839	0	0.12991	0.080505	0
T6 OOS he	DSL	0.009825	0.000713	0	0.012	0.13034	0.0094	0.000682	0	0.003	0.05586	0.006543	0.004686	0	0.108858	0.077963	0
T6 OOS sm	DSL	0.01033	0.000713	0	0.012	0.13034	0.009884	0.000682	0	0.003	0.05586	0.007265	0.004695	0	0.120871	0.07811	0
T6 Public	DSL	0.006926	0.007679	0	0.012	0.13034	0.006627	0.007346	0	0.003	0.05586	0.008789	0.026636	0	0.146232	0.443164	0
T6 utility	DSL	0.003391	0.001959	0	0.012	0.13034	0.003244	0.001874	0	0.003	0.05586	0.007631	0.012861	0	0.126955	0.213985	0
T6TS	GAS	0.001406	0	0.000423	0.012	0.13034	0.001293	0	0.000389	0.003	0.05586	0.014402	0.004515	0.000309	0.008889	0.008266	0.029832
T7 CAIRP	DSL	0.027989	0.044406	0	0.036	0.06174	0.026778	0.042485	0	0.009	0.02646	0.009241	0.19431	0	0.153744	3.232902	0
T7 CAIRP c	DSL	0.020873	0.006786	0	0.036	0.06174	0.01997	0.006492	0	0.009	0.02646	0.012434	0.029346	0	0.206871	0.488246	0
T7 NNOOS	DSL	0.024246	0.055114	0	0.036	0.06174	0.023198	0.05273	0	0.009	0.02646	0.009103	0.237108	0	0.151446	3.944965	0
T7 NOOS	DSL	0.028066	0.055114	0	0.036	0.06174	0.026852	0.05273	0	0.009	0.02646	0.009257	0.241688	0	0.154017	4.021172	0
T7 other p	DSL	0.015691	0.006988	0	0.036	0.06174	0.015013	0.006686	0	0.009	0.02646	0.011495	0.03058	0	0.19125	0.508783	0
T7 POAK	DSL	0.016048	0.011158	0	0.036	0.06174	0.015354	0.010675	0	0.009	0.02646	0.011645	0.048992	0	0.193742	0.815118	0
T7 Public	DSL	0.016642	0.017535	0	0.036	0.06174	0.015922	0.016776	0	0.009	0.02646	0.013252	0.02558	0	0.220493	0.425604	0
T7 Single	DSL	0.01275	0.009304	0	0.036	0.06174	0.012198	0.008901	0	0.009	0.02646	0.011538	0.043764	0	0.191962	0.72814	0
T7 single c	DSL	0.015998	0.006869	0	0.036	0.06174	0.015306	0.006572	0	0.009	0.02646	0.014043	0.032476	0	0.233642	0.540334	0
T7 SWCV	DSL	0.016949	0.01424	0	0.036	0.06174	0.016216	0.013624	0	0.009	0.02646	0.02923	0.031028	0	0.486324	0.516238	0
T7 tractor	DSL	0.027473	0.007999	0	0.036	0.06174	0.026285	0.007653	0	0.009	0.02646	0.009581	0.037717	0	0.159408	0.627525	0
T7 tractor	DSL	0.022951	0.006805	0	0.036	0.06174	0.021959	0.006511	0	0.009	0.02646	0.013885	0.031883	0	0.231022	0.53047	0
T7 utility	DSL	0.006908	0.002704	0	0.036	0.06174	0.00661	0.002587	0	0.009	0.02646	0.012314	0.013094	0	0.204881	0.217864	0
T7IS	GAS	0.001151	0	0.00042	0.02	0.06174	0.001058	0	0.000386	0.005	0.02646	0.015688	0	0.000373	0.131454	0	0.000333
UBUS	GAS	0.002385	0	0.000931	0.01161	0.126331	0.002193	0	0.000856	0.002903	0.054142	0.01651	0	0.000763	0.02287	0	0.072351
UBUS	DSL	0.004771	0	0	0.020674	0.10554	0.004565	0	0	0.005168	0.045231	0.011536	0	0	0.191808	0	0
UBUS	NG	0.002605	0	0	0.020674	0.10554	0.002492	0	0	0.005168	0.045231	0	0	0	0.328155	0	0

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Placer (SV)
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	CH4_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW
Placer (SV)	2035	All Other Buses	Aggregated	Aggregated	DSL	0.000274067	8.18662E-05	0	0.000355933	0.00411544	0.000111907	0.000728968	0.004956315	1.854163994	0.022172853	0	1.876336847	9.87191E-07	8.97977E-08	0	1.07699E-06	1.11967E-05	2.79328E-08	0	1.12246E-05	2.3619E-05	0.000256542
Placer (SV)	2035	LDA	Aggregated	Aggregated	DSL	0.007358335	0	0	0.007358335	0.00067163	0	0	0.00067163	8.140389367	0	0	8.140389367	1.17335E-05	0	0	1.17335E-05	6.38805E-05	0	0	6.38805E-05	0.000425247	0.001953477
Placer (SV)	2035	LDT1	Aggregated	Aggregated	DSL	1.64218E-05	0	0	1.64218E-05	1.15391E-05	0	0	1.15391E-05	0.027117592	0	0	0.027117592	7.30357E-08	0	0	7.30357E-08	6.22947E-07	0	0	6.22947E-07	7.23033E-07	3.32143E-06
Placer (SV)	2035	LDT2	Aggregated	Aggregated	DSL	0.002929443	0	0	0.002929443	0.000629904	0	0	0.000629904	4.393581199	0	0	4.393581199	1.33018E-05	0	0	1.33018E-05	9.02025E-05	0	0	9.02025E-05	0.000171216	0.000786522
Placer (SV)	2035	LHD1	Aggregated	Aggregated	DSL	0.078925207	0.003445959	0	0.082371166	0.085616103	0.005611638	0	0.091227741	56.89134048	0.453085958	0	57.34442644	0.000771082	1.93108E-05	0	0.000790393	0.001746269	0.000102961	0	0.00184923	0.0014334	0.009130758
Placer (SV)	2035	LHD2	Aggregated	Aggregated	DSL	0.029883524	0.001344844	0	0.031228368	0.025552491	0.002153794	0	0.027706285	24.70382557	0.283684266	0	24.98750984	0.0002903	7.53638E-06	0	0.000297836	0.00091583	4.05113E-05	0	0.000956342	0.00055471	0.004122418
Placer (SV)	2035	MDV	Aggregated	Aggregated	DSL	0.006964283	0	0	0.006964283	0.000646476	0	0	0.000646476	11.66974873	0	0	11.66974873	1.15921E-05	0	0	1.15921E-05	6.992E-05	0	0	6.992E-05	0.000341726	0.001569803
Placer (SV)	2035	MH	Aggregated	Aggregated	DSL	0.001081496	0	0	0.001081496	0.010913464	0	0	0.010913464	2.749414385	0	0	2.749414385	1.4878E-05	0	0	1.4878E-05	0.000217038	0	0	0.000217038	4.70814E-05	0.000383537
Placer (SV)	2035	Motor Coach	Aggregated	Aggregated	DSL	0.000298543	0.000858857	0	0.0011574	0.003264638	0.00068687	0.000473715	0.004425224	2.161621397	0.133036604	0	2.294658001	1.49218E-06	2.6998E-06	0	4.19197E-06	4.14707E-05	2.47373E-07	0	4.17181E-05	2.08218E-05	0.00022616
Placer (SV)	2035	PTO	Aggregated	Aggregated	DSL	0.002911709	0	0	0.002911709	0.032774336	0	0	0.032774336	11.8260317	0	0	11.8260317	8.43967E-06	0	0	8.43967E-06	3.44228E-05	0	0	3.44228E-05	0	0
Placer (SV)	2035	SBUS	Aggregated	Aggregated	DSL	0.001692594	0.002113906	0	0.0038065	0.02515051	0.007365606	0.004160446	0.036676562	7.663797391	0.814267498	0	8.478064889	2.23708E-05	3.07956E-06	0	2.54504E-05	0.00020122	4.44425E-06	0	0.000205664	9.45207E-05	0.005866582
Placer (SV)	2035	T6 CAIRP heavy	Aggregated	Aggregated	DSL	0.000316271	6.00139E-05	0	0.000376284	0.0045156	8.2036E-05	0.000551647	0.005149283	3.408437646	0.014273588	0	3.422711234	1.77249E-06	6.58283E-08	0	1.83831E-06	4.84463E-05	2.04768E-08	0	4.84668E-05	5.89966E-05	0.000604802
Placer (SV)	2035	T6 CAIRP small	Aggregated	Aggregated	DSL	6.30609E-05	4.53996E-05	0	0.00010846	0.000911967	6.2059E-05	0.000417371	0.001391397	0.740692453	0.010758725	0	0.751451179	3.53414E-07	4.97981E-08	0	4.03212E-07	9.8925E-06	1.54904E-08	0	9.90799E-06	1.15861E-05	0.000125845
Placer (SV)	2035	T6 instate construc	Aggregated	Aggregated	DSL	0.001211995	0.000188943	0	0.001400937	0.014647345	0.000261577	0.001088676	0.015997599	6.222527747	0.051066554	0	6.273594302	4.87568E-06	2.07709E-07	0	5.08338E-06	6.6861E-05	6.85814E-08	0	6.69296E-05	6.8731E-05	0.000746533
Placer (SV)	2035	T6 instate construc	Aggregated	Aggregated	DSL	0.005637508	0.001271948	0	0.006909456	0.063351611	0.001740288	0.007390958	0.072482858	29.87364789	0.320340918	0	30.19398881	2.09921E-05	1.39546E-06	0	2.23876E-05	0.000264581	4.35428E-07	0	0.000265016	0.00036308	0.00394613
Placer (SV)	2035	T6 instate heavy	Aggregated	Aggregated	DSL	0.015124654	0.002650218	0	0.017774873	0.214010465	0.003622717	0.031325272	0.248958455	114.0443745	0.663622755	0	114.7079973	6.17368E-05	2.90698E-06	0	6.46437E-05	0.001008708	9.04257E-07	0	0.001009612	0.001775808	0.019288231
Placer (SV)	2035	T6 instate small	Aggregated	Aggregated	DSL	0.021047348	0.009010469	0	0.030057817	0.295504034	0.012316867	0.106597116	0.414418017	172.103623	2.209163701	0	174.3127867	8.59129E-05	9.88345E-06	0	9.57963E-05	0.001383062	3.07438E-06	0	0.001386137	0.002498856	0.027141741
Placer (SV)	2035	T6 OOS heavy	Aggregated	Aggregated	DSL	0.000176946	3.34058E-05	0	0.000210352	0.002523246	4.56641E-05	0.000307075	0.002875985	1.907055079	0.007931686	0	1.914986765	9.91662E-07	3.66424E-08	0	1.0283E-06	2.70559E-05	1.13981E-08	0	2.70673E-05	3.30444E-05	0.000358918
Placer (SV)	2035	T6 OOS small	Aggregated	Aggregated	DSL	2.50824E-05	1.8186E-05	0	4.32683E-05	0.000364228	2.48593E-05	0.000167165	0.000556253	0.294342649	0.004326151	0	0.2986688	1.4057E-07	1.99479E-08	0	1.60518E-07	3.95424E-06	6.20507E-09	0	3.96045E-06	4.59331E-06	4.9891E-05
Placer (SV)	2035	T6 Public	Aggregated	Aggregated	DSL	0.000861466	0.004454141	0	0.005315607	0.011496021	0.00784703	0.00380923	0.023152281	6.295738189	1.223892789	0	7.519630978	6.08243E-06	5.24619E-06	0	1.13286E-05	4.68717E-05	3.33327E-06	0	5.0205E-05	8.12083E-05	0.000882057
Placer (SV)	2035	T6 utility	Aggregated	Aggregated	DSL	5.27246E-05	0.000213307	0	0.000266031	0.000584357	0.00029158	0.000842544	0.001718481	0.500602284	0.050579732	0	0.551182017	2.09244E-07	2.33973E-07	0	4.43216E-07	2.10175E-06	7.27804E-08	0	2.17453E-06	7.43769E-06	8.07857E-05
Placer (SV)	2035	T7 CAIRP	Aggregated	Aggregated	DSL	0.00897537	0.035250075	0	0.044225445	0.099874384	0.028191188	0.007454593	0.135520165	47.3343127	4.702477386	0	52.03679008	4.48607E-05	0.000110808	0	0.000155668	0.001354485	1.01529E-05	0	0.001364638	0.001742188	0.002987852
Placer (SV)	2035	T7 CAIRP construct	Aggregated	Aggregated	DSL	0.002023874	0.000529514	0	0.002553388	0.016465395	0.000423478	0.000463911	0.017352783	5.414621388	0.069815473	0	5.484436861	6.74696E-06	1.66451E-06	0	8.41147E-06	8.58744E-05	1.52514E-07	0	8.6027E-05	0.00014811	0.000254009
Placer (SV)	2035	T7 NNOOS	Aggregated	Aggregated	DSL	0.01021428	0.065650071	0	0.075864351	0.109859959	0.052503534	0.011187287	0.17355078	56.84668686	8.610602959	0	65.45728982	5.1053E-05	0.000206369	0	0.000257422	0.001430572	1.89089E-05	0	0.001449481	0.002124046	0.003642739
Placer (SV)	2035	T7 NOOS	Aggregated	Aggregated	DSL	0.003528192	0.017392314	0	0.020920506	0.039294875	0.013909474	0.002963405	0.056167753	18.61433327	2.325225775	0	20.93955904	1.76346E-05	5.46723E-05	0	7.23069E-05	0.00053318	5.00944E-06	0	0.000538189	0.000683904	0.001172895
Placer (SV)	2035	T7 other port	Aggregated	Aggregated	DSL	0.000202721	7.53647E-05	0	0.000278086	0.001953858	6.02728E-05	4.21725E-05	0.002056303	0.595167746	0.010054545	0	0.605222291	6.59585E-07	2.36907E-07	0	8.96492E-07	7.67559E-06	2.1707E-08	0	7.6973E-06	1.76098E-05	3.02008E-05
Placer (SV)	2035	T7 POAK	Aggregated	Aggregated	DSL	0.00097433	0.00057637	0	0.0015507	0.009437141	0.000460951	0.000201997	0.010100089	2.863275655	0.077155241	0	2.940430896	3.17013E-06	1.81181E-06	0	4.98193E-06	3.72795E-05	1.6601E-07	0	3.74455E-05	8.36289E-05	0.000143424
Placer (SV)	2035	T7 Public	Aggregated	Aggregated	DSL	0.002022222	0.005094523	0	0.007116744	0.027601904	0.00679774	0.004427687	0.038827331	9.344205422	0.890323796	0	10.23452922	1.71679E-05	1.75198E-05	0	3.46877E-05	0.000110856	5.76568E-06	0	0.000116622	0.000239808	0.000411271
Placer (SV)	2035	T7 Single	Aggregated	Aggregated	DSL	0.007890453	0.014752084	0	0.022642537	0.076990474	0.011797954	0.019107665	0.107896093	44.17941368	2.1155907	0	46.29500438	2.99755E-05	4.63728E-05	0	7.63483E-05	0.000461243	4.24899E-06	0	0.000465492	0.001302328	0.002233492
Placer (SV)	2035	T7 single construct	Aggregated	Aggregated	DSL	0.004410472	0.003221764	0	0.007632237	0.034015281	0.002585673	0.002808453	0.039409408	15.17098729	0.471089843	0	15.64207713	1.54686E-05	1.01317E-05	0	2.56003E-05	0.000163281	9.41401E-07	0	0.000164222	0.000367434	0.00063015
Placer (SV)	2035	T7 SWCV	Aggregated	Aggregated	DSL	0.000594605	0.00373082	0	0.004325425	0.013999724	0.004180789	0.003536586	0.021717098	23.2135413	0.604289885	0	23.81783119	1.03707E-05	1.23485E-05	0	2.27192E-05	0.000127165	2.6202E-06	0	0.000129785	0.000270105	0.00046323
Placer (SV)	2035	T7 tractor	Aggregated	Aggregated	DSL	0.005764263	0.008366123	0	0.014130386	0.06647042	0.006690793	0.007154317	0.08031553	36.73565723	1.202582377	0	37.9382396	3.09391E-05	2.62987E-05	0	5.72378E-05	0.000995177	2.40966E-06	0	0.000997587	0.00130405	0.002236446
Placer (SV)	2035	T7 tractor construc	Aggregated	Aggregated	DSL	0.004346422	0.00267891	0	0.007025332	0.036164959	0.002144822	0.002340004	0.040649784	12.37437415	0.383992068	0	12.75836622	1.46938E-05	8.42269E-06	0	2.31165E-05	0.000193239	7.74324E-07	0	0.000194013	0.000303101	0.000519818
Placer (SV)	2035	T7 utility	Aggregated	Aggregated	DSL	2.95753E-05	6.68358E-05	0	9.64111E-05	0.000252602	5.34518E-05	0.000271855	0.000577908	0.187997431	0.009866507	0	0.197863938	1.05406E-07	2.10097E-07	0	3.15502E-07	9.96413E-07	1.92505E-08	0	1.01566E-06	5.19237E-06	8.90492E-06
Placer (SV)	2035	UBUS	Aggregated	Aggregated	DSL	0.001072209	0	0	0.001072209	0.007513607	0	0	0.007513607	14.90433289	0	0	14.90433289	0.000657863	0	0	0.000657863	5.82732E-05	0	0	5.82732E-05	0.000252511	0.001289067
Placer (SV)	2035	LDA	Aggregated	Aggregated	ELEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.002225476	0.010223278
Placer (SV)	2035	LDT1	Aggregated	Aggregated	ELEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000172624	0.000792992
Placer (SV)	2035	LDT2	Aggregated	Aggregated	ELEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000460805	0.002116824
Placer (SV)	2035	MDV	Aggregated	Aggregated	ELEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000320747	0.001473432
Placer (SV)	2035	LDA	Aggregated	Aggregated	GAS	1.820334054	0	0.955842765	2.776176819	0.078100933	0	0.070717485	0.148818418	848.3821646	0	24.76036888	873.1425335	0.003316042	0	0.014256361	0.017572404	0.002859781	0	0.000586995	0.003446777	0.034283162	0.157488275
Placer (SV)	2035	LDT1	Aggregated	Aggregated	GAS	0.287402178	0	0.146867344	0.434269522	0.013284806	0	0.011907635	0.025192441	150.0161718	0	4.266789111	154.2829609	0.000579387	0	0.002396824	0.002976211	0.000480074	0	9.87001E-05	0.000578774	0.005197152	0.023874415
Placer (SV)	2035	LDT2	Aggregated	Aggregated	GAS	1.044509981	0	0.602468634	1.646978615	0.042826769	0	0.039960844	0.082787613	490.8796056	0	14.35018094	505.2297865	0.002255546	0	0.009505951	0.011761497	0.00151285	0	0.000302745	0.001815596	0.016974555	0.077976864
Placer (SV)	2035	LHD1	Aggregated	Aggregated	GAS	0.027519258	0.012372222	0.074094182	0.113985661	0.008613282	9.42611E-05	0.017748535	0.026456078	93.74259027	0.350190915	0.823139138	94.91592033	0.000344274	0.000319075	0.000685932	0.001349281	0.000238713	0	1.60592E-05	0.000254772	0.000869893	0.008311826
Placer (SV)	2035	LHD2	Aggregated	Aggregated	GAS	0.002866606	0.001928593	0.010729365	0.015524564	0.001095818	1.46023E-05	0.002740795	0.003851216	16.6120271	0.062620043	0.144874353	16.8195215	3.98157E-05	5.00934E-05	9.45223E-05	0.000184431	3.48286E-05	0	2.26098E-06	3.70896E-05	0.000134386	0.001498072
Placer (SV)	2035	MCY	Aggregated	Aggregated	GAS	0.759809363	0	0.159753234	0.919562597	0.049739984	0	0.00459518	0.054335165	9.093740154	0	1.019089608	10.11282976	0.013825296	0	0.00421876	0.018044056	9.34702E-05	0	4.62833E-05	0.000139754	0.000175089	0.000514762
Placer (SV)	2035	MDV	Aggregated	Aggregated	GAS	0.638605559	0	0.401761425	1.040366984	0.032112349	0	0.029269161	0.061381509	344.441018	0	11.33915135	355.7801694	0.001610453	0	0.00680602	0.008416473	0.000910607	0	0.000203729	0.001114336	0.009591865	0.044062631
Placer (SV)	2035	MH	Aggregated	Aggregated	GAS	0.001291048	0	0.000138911	0.00142996	0.000752676	0	2.40416E-05	0.000776718	8.457944101	0	0.001366141	8.459310242	2.51138E-05	0	1.76505E-06	2.68789E-05	7.43624E-06	0	1.74365E-08	7.45368E-06	6.68755E-05	0.00072638
Placer (SV)	2035	OBUS	Aggregated	Aggregated	GAS	0.001152307	0.000534389	0.004681514	0.00636821	0.000476975	6.02045E-06	0.000564821	0.001047816	5.056685625	0.030419577	0.041372221	5.128477424	1.4638E-05	1.83861E-05	4.68417E-05	7.98658E-05	4.63798E-06	0	4.94037E-07	5.13201E-06	4.12593E-05	0.000448145
Placer (SV)	2035	SBUS	Aggregated	Aggregated	GAS	0.000376475	0.004085919	0.001474149	0.005936543	0.000212483	4.60322E-05	9.48385E-05	0.000353354	1.353283325	0.109467236	0.008206595	1.470957156	5.06321E-06	0.000119747	1.03975E-05	0.000135207	2.88072E-06	0	1.39795E-07	3.02051E-06	1.48816E-05	0.001385473
Placer (SV)	2035	T6TS	Aggregated	Aggregated	GAS	0.003786022	0.005760553	0.023018842	0.032565417	0.001657653	3.37163E-05	0.002461639	0.004153009	23.54507391	0.171817777	0.235370655	23.95226234	5.37362E-05	0.000103412	0.000234452	0.0003916	2.27469E-05	0	3.19003E-06	2.59369E-05	0.000194143	0.002108719
Placer (SV)	2035	T7IS	Aggregated	Aggregated	GAS	0.004236206	0	0.00013946	0.004375666	0.000441002	0	1.8897E-07	0.000441191	0.232398975	0	0.001043377	0.233442352	1.00762E-05	0	7.51022E-09	1.00837E-05	1.68738E-07	0	1.1613E-08	1.80351E-07	2.93188E-06	9.05071E-06
Placer (SV)	2035	UBUS	Aggregated	Aggregated	GAS	0.001705972	0	0.002082471	0.003788443	0.001307251	0	0.00020323	0.001510481	8.27769705	0	0.019034487	8.296731537	3.13727E-05	0	2.8345E-05	5.97177E-05	1.18323E-05	0	2.29886E-07	1.20622E-05	5.76063E-05	0.000626806

Fuel	% VMT by Fuel Type	Weighted Ave Fuel
Gasoline	0.86132001	0.02831079
Diesel	0.098201712	0.079774063

*remaining 5% VMT is electric and not accounted for in fuel consumption calculation

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Placer (SV)
Calendar Year: 2035
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	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	N2O_RUNEX	N2O_IDLEX	N2O_STREX	N2O_TOTEX	Fuel Consumption	Fuel Consumption per
Placer (SV)	2035	All Other Buses	Aggregated	Aggregated	DSL	0.000291385	1.07123E-05	2.67244E-08	0	1.0739E-05	5.90475E-06	0.000109946	0.00012659	1.75172E-05	2.09478E-07	0	1.77267E-05	0.000291449	3.48526E-06	0	0.000294934	0.167224826	0.093653706
Placer (SV)	2035	LDA	Aggregated	Aggregated	DSL	0.002442604	6.11171E-05	0	0	6.11171E-05	0.000106312	0.000837204	0.001004633	7.6956E-05	0	0	7.6956E-05	0.001279556	0	0	0.001279556	0.725496169	0.01504487
Placer (SV)	2035	LDT1	Aggregated	Aggregated	DSL	4.66741E-06	5.95999E-07	0	0	5.95999E-07	1.80758E-07	1.42347E-06	2.20023E-06	2.56359E-07	0	0	2.56359E-07	4.26251E-06	0	0	4.26251E-06	0.002416802	0.029476578
Placer (SV)	2035	LDT2	Aggregated	Aggregated	DSL	0.001047941	8.63003E-05	0	0	8.63003E-05	4.28039E-05	0.000337081	0.000466185	4.15351E-05	0	0	4.15351E-05	0.00069061	0	0	0.00069061	0.391569271	0.020167828
Placer (SV)	2035	LHD1	Aggregated	Aggregated	DSL	0.012413388	0.001670726	9.8507E-05	0	0.001769233	0.00035835	0.003913182	0.006040765	0.000537828	4.28329E-06	0	0.000542111	0.008942526	7.12188E-05	0	0.009013745	5.110709063	0.047162766
Placer (SV)	2035	LHD2	Aggregated	Aggregated	DSL	0.005633469	0.000876212	3.87588E-05	0	0.000914971	0.000138677	0.001766751	0.002820399	0.00023354	2.68184E-06	0	0.000236222	0.003883097	4.45912E-05	0	0.003927689	2.2269626	0.053104661
Placer (SV)	2035	MDV	Aggregated	Aggregated	DSL	0.001981448	6.68953E-05	0	0	6.68953E-05	8.54314E-05	0.000672773	0.000825099	0.000110321	0	0	0.000110321	0.001834322	0	0	0.001834322	1.040043371	0.026839104
Placer (SV)	2035	MH	Aggregated	Aggregated	DSL	0.000647656	0.000207649	0	0	0.000207649	1.17703E-05	0.000164373	0.000383792	2.59919E-05	0	0	2.59919E-05	0.00043217	0	0	0.00043217	0.245036142	0.091792081
Placer (SV)	2035	Motor Coach	Aggregated	Aggregated	DSL	0.0002887	3.96767E-05	2.36672E-07	0	3.99134E-05	5.20546E-06	9.69256E-05	0.000142044	2.04219E-05	1.25686E-06	0	2.16788E-05	0.000339777	2.09115E-05	0	0.000360688	0.204506875	0.129919578
Placer (SV)	2035	PTO	Aggregated	Aggregated	DSL	3.44228E-05	3.29337E-05	0	0	3.29337E-05	0	0	3.29337E-05	0.000111726	0	0	0.000111726	0.001858887	0	0	0.001858887	1.053971784	0.161740349
Placer (SV)	2035	SBUS	Aggregated	Aggregated	DSL	0.006166767	0.000192515	4.252E-06	0	0.000196767	2.36302E-05	0.00251425	0.002734647	7.24038E-05	7.6928E-06	0	8.00966E-05	0.001204642	0.000127992	0	0.001332634	0.755590835	0.105741493
Placer (SV)	2035	T6 CAIRP heavy	Aggregated	Aggregated	DSL	0.000748265	4.63505E-05	1.9591E-08	0	4.63701E-05	1.47492E-05	0.000274629	0.000335749	3.22012E-05	1.3485E-07	0	3.23361E-05	0.000535759	2.24361E-06	0	0.000538003	0.305042397	0.068394103
Placer (SV)	2035	T6 CAIRP small	Aggregated	Aggregated	DSL	0.000147339	9.46455E-06	1.48203E-08	0	9.47937E-06	2.89653E-06	5.39334E-05	6.63093E-05	6.9977E-06	1.01643E-07	0	7.09934E-06	0.000116427	1.69112E-06	0	0.000118118	0.066971606	0.076460634
Placer (SV)	2035	T6 instate construc	Aggregated	Aggregated	DSL	0.000882194	6.39686E-05	6.56146E-08	0	6.40342E-05	1.71828E-05	0.000319943	0.00040116	5.87874E-05	4.82451E-07	0	5.92698E-05	0.000978095	8.02695E-06	0	0.000986122	0.559121736	0.107606674
Placer (SV)	2035	T6 instate construc	Aggregated	Aggregated	DSL	0.004574455	0.000253135	4.16591E-07	0	0.000253552	9.0827E-05	0.001691199	0.002035578	0.000282231	3.02642E-06	0	0.000285258	0.004695721	5.03531E-05	0	0.004746075	2.690979784	0.09797629
Placer (SV)	2035	T6 instate heavy	Aggregated	Aggregated	DSL	0.022073651	0.000965072	8.65139E-07	0	0.000965937	0.000443952	0.008266385	0.009676274	0.001077435	6.26958E-06	0	0.001083704	0.017926188	0.000104312	0	0.0180305	10.22312433	0.076150581
Placer (SV)	2035	T6 instate small	Aggregated	Aggregated	DSL	0.031026734	0.001323232	2.94138E-06	0	0.001326173	0.000624714	0.011632175	0.013583062	0.00162595	2.08711E-05	0	0.001646821	0.027052293	0.00034725	0	0.027399543	15.5352838	0.082236282
Placer (SV)	2035	T6 OOS heavy	Aggregated	Aggregated	DSL	0.000419029	2.58855E-05	1.0905E-08	0	2.58964E-05	8.26111E-06	0.000153822	0.000187979	1.80169E-05	7.49346E-08	0	1.80918E-05	0.000299763	1.24675E-06	0	0.000301009	0.170669424	0.068319228
Placer (SV)	2035	T6 OOS small	Aggregated	Aggregated	DSL	5.84448E-05	3.78318E-06	5.93664E-09	0	3.78912E-06	1.14833E-06	2.13819E-05	2.63193E-05	2.7808E-06	4.08713E-08	0	2.82167E-06	4.62666E-05	6.80011E-07	0	4.69466E-05	0.026618269	0.076654782
Placer (SV)	2035	T6 Public	Aggregated	Aggregated	DSL	0.001013471	4.48441E-05	3.18907E-06	0	4.80331E-05	2.03021E-05	0.000378025	0.00044636	5.9479E-05	1.15627E-05	0	7.10417E-05	0.000989602	0.000192379	0	0.001181981	0.670172301	0.109162044
Placer (SV)	2035	T6 utility	Aggregated	Aggregated	DSL	9.0398E-05	2.01083E-06	6.9632E-08	0	2.08046E-06	1.85942E-06	3.46225E-05	3.85623E-05	4.72944E-06	4.77852E-07	0	5.20729E-06	7.86877E-05	7.95043E-06	0	8.66381E-05	0.049123012	0.087363957
Placer (SV)	2035	T7 CAIRP	Aggregated	Aggregated	DSL	0.006094677	0.001295891	9.71374E-06	0	0.001305604	0.000435547	0.001280508	0.003021659	0.000447191	4.44267E-05	0	0.000491618	0.007440295	0.000739164	0	0.008179459	4.637676426	0.105636083
Placer (SV)	2035	T7 CAIRP construct	Aggregated	Aggregated	DSL	0.000488146	8.21595E-05	1.45916E-07	0	8.23055E-05	3.70276E-05	0.000108861	0.000228194	5.11547E-05	6.59582E-07	0	5.18142E-05	0.000851103	1.0974E-05	0	0.000862077	0.488789633	0.130961518
Placer (SV)	2035	T7 NNOOS	Aggregated	Aggregated	DSL	0.007216266	0.001368686	1.8091E-05	0	0.001386777	0.000531011	0.001561174	0.003478962	0.000537059	8.13487E-05	0	0.000618408	0.008935508	0.001353467	0	0.010288974	5.833752033	0.108991051
Placer (SV)	2035	T7 NOOS	Aggregated	Aggregated	DSL	0.002394988	0.000510114	4.79274E-06	0	0.000514907	0.000170976	0.000502669	0.001188552	0.000175859	2.19676E-05	0	0.000197827	0.002925914	0.000365493	0	0.003291407	1.866196958	0.10828523
Placer (SV)	2035	T7 other port	Aggregated	Aggregated	DSL	5.55079E-05	7.34355E-06	2.0768E-08	0	7.36432E-06	4.40245E-06	1.29432E-05	2.471E-05	5.62285E-06	9.49904E-08	0	5.71784E-06	9.35521E-05	1.58043E-06	0	9.51325E-05	0.053939245	0.121550691
Placer (SV)	2035	T7 POAK	Aggregated	Aggregated	DSL	0.000264498	3.56668E-05	1.58828E-07	0	3.58256E-05	2.09072E-05	6.14673E-05	0.0001182	2.70508E-05	7.28924E-07	0	2.77797E-05	0.000450067	1.21277E-05	0	0.000462195	0.262060112	0.124351529
Placer (SV)	2035	T7 Public	Aggregated	Aggregated	DSL	0.000767702	0.000106061	5.51625E-06	0	0.000111577	5.99521E-05	0.000176259	0.000347788	8.82794E-05	8.41134E-06	0	9.66908E-05	0.001468779	0.000139947	0	0.001608725	0.912132259	0.150938536
Placer (SV)	2035	T7 Single	Aggregated	Aggregated	DSL	0.004001312	0.000441289	4.06518E-06	0	0.000445355	0.000325582	0.000957211	0.001728147	0.000417385	1.99871E-05	0	0.000437372	0.006944389	0.000332541	0	0.00727693	4.125951085	0.125721776
Placer (SV)	2035	T7 single construct	Aggregated	Aggregated	DSL	0.001161806	0.000156217	9.00676E-07	0	0.000157118	9.18586E-05	0.000270064	0.000519041	0.000143328	4.45062E-06	0	0.000147779	0.002384668	7.40488E-05	0	0.002458717	1.394069316	0.150560662
Placer (SV)	2035	T7 SWCV	Aggregated	Aggregated	DSL	0.000863121	0.000121664	2.50685E-06	0	0.000124171	6.75263E-05	0.000198527	0.000390224	0.00021931	5.70903E-06	0	0.000225019	0.003648845	9.4986E-05	0	0.003743831	2.122717294	0.311864663
Placer (SV)	2035	T7 tractor	Aggregated	Aggregated	DSL	0.004538083	0.000952126	2.30542E-06	0	0.000954432	0.000326013	0.000958477	0.002238921	0.00034706	1.13614E-05	0	0.000358422	0.005774334	0.000189029	0	0.005963363	3.381170883	0.102891531
Placer (SV)	2035	T7 tractor construc	Aggregated	Aggregated	DSL	0.001016932	0.000184879	7.40828E-07	0	0.00018562	7.57752E-05	0.000222779	0.000484174	0.000116907	3.62777E-06	0	0.000120535	0.001945079	6.03582E-05	0	0.002005437	1.137064261	0.148869098
Placer (SV)	2035	T7 utility	Aggregated	Aggregated	DSL	1.5113E-05	9.53309E-07	1.84177E-08	0	9.71727E-07	1.29809E-06	3.8164E-06	6.08622E-06	1.77611E-06	9.32139E-08	0	1.86932E-06	2.95506E-05	1.55088E-06	0	3.11015E-05	0.017634234	0.134771271
Placer (SV)	2035	UBUS	Aggregated	Aggregated	DSL	0.001599851	5.57524E-05	0	0	5.57524E-05	6.31276E-05	0.000552457	0.000671337	0.0001409	0	0	0.0001409	0.002342754	0	0	0.002342754	1.328319314	0.119880113
Placer (SV)	2035	LDA	Aggregated	Aggregated	ELEC	0.012448754	0	0	0	0	0.000556369	0.004381405	0.004937774	0	0	0	0	0	0	0	0	0	0
Placer (SV)	2035	LDT1	Aggregated	Aggregated	ELEC	0.000965616	0	0	0	0	4.3156E-05	0.000339854	0.00038301	0	0	0	0	0	0	0	0	0	0
Placer (SV)	2035	LDT2	Aggregated	Aggregated	ELEC	0.002577629	0	0	0	0	0.000115201	0.00090721	0.001022412	0	0	0	0	0	0	0	0	0	0
Placer (SV)	2035	MDV	Aggregated	Aggregated	ELEC	0.001794179	0	0	0	0	8.01868E-05	0.000631471	0.000711658	0	0	0	0	0	0	0	0	0	0
Placer (SV)	2035	LDA	Aggregated	Aggregated	GAS	0.195218214	0.002629463	0	0.00053972	0.003169184	0.00857079	0.067494975	0.079234949	0.008395429	0	0.000245024	0.008640453	0.012708095	0	0.011333284	0.024041379	92.16299073	0.023706636
Placer (SV)	2035	LDT1	Aggregated	Aggregated	GAS	0.029650341	0.000441411	0	9.07511E-05	0.000532162	0.001299288	0.010231892	0.012063342	0.001484532	0	4.22233E-05	0.001526755	0.002067053	0	0.00181261	0.003879663	16.28506063	0.027632377
Placer (SV)	2035	LDT2	Aggregated	Aggregated	GAS	0.096767015	0.00139101	0	0.000278363	0.001669373	0.004243639	0.033418656	0.039331668	0.004857652	0	0.000142007	0.004999658	0.006558858	0	0.006017868	0.012576726	53.32862201	0.027704876
Placer (SV)	2035	LHD1	Aggregated	Aggregated	GAS	0.009436491	0.000219488	0	1.47658E-05	0.000234254	0.000217473	0.003562211	0.004013938	0.000927659	3.46542E-06	8.14563E-06	0.00093927	0.000639224	8.86366E-06	0.001592988	0.002241076	10.01867937	0.101563808
Placer (SV)	2035	LHD2	Aggregated	Aggregated	GAS	0.001669548	3.20236E-05	0	2.07889E-06	3.41025E-05	3.35966E-05	0.000642031	0.00070973	0.000164389	6.19676E-07	1.43365E-06	0.000166443	9.58852E-05	1.374E-06	0.000246672	0.000343931	1.77535436	0.116499483
Placer (SV)	2035	MCY	Aggregated	Aggregated	GAS	0.000829605	8.71674E-05	0	4.32492E-05	0.000130417	4.37723E-05	0.000220612	0.000394801	8.99899E-05	0	1.00847E-05	0.000100075	0.002853521	0	0.000258663	0.003112185	1.067441569	0.026881223
Placer (SV)	2035	MDV	Aggregated	Aggregated	GAS	0.054768832	0.000837269	0	0.000187322	0.001024591	0.002397966	0.018883985	0.022306542	0.003408523	0	0.00011221	0.003520733	0.004157136	0	0.004047363	0.008204498	37.5537363	0.034525846
Placer (SV)	2035	MH	Aggregated	Aggregated	GAS	0.000800709	6.83735E-06	0	1.60322E-08	6.85338E-06	1.67189E-05	0.000311306	0.000334878	8.36982E-05	0	1.35191E-08	8.37117E-05	7.73374E-05	0	2.72878E-06	8.00662E-05	0.892907288	0.176613849
Placer (SV)	2035	OBUS	Aggregated	Aggregated	GAS	0.000494536	4.26445E-06	0	4.54249E-07	4.7187E-06	1.03148E-05	0.000192062	0.000207095	5.004E-05	3.01026E-07	4.09412E-07	5.07504E-05	3.62401E-05	5.27667E-07	4.75738E-05	8.43416E-05	0.541327217	0.173549658
Placer (SV)	2035	SBUS	Aggregated	Aggregated	GAS	0.001403376	2.64871E-06	0	1.28536E-07	2.77725E-06	3.72039E-06	0.000593774	0.000600272	1.33918E-05	1.08327E-06	8.12109E-08	1.45563E-05	2.10863E-05	4.74891E-06	9.48046E-06	3.53157E-05	0.155264239	0.092006213
Placer (SV)	2035	T6TS	Aggregated	Aggregated	GAS	0.002328799	2.0915E-05	0	2.93111E-06	2.38481E-05	4.85358E-05	0.000903737	0.00097612	0.000232998	1.70028E-06	2.32918E-06	0.000237027	0.00014382	3.11294E-06	0.000224796	0.000371729	2.528237999	0.172258749
Placer (SV)	2035	T7IS	Aggregated	Aggregated	GAS	1.21629E-05	1.55148E-07	0	1.06777E-08	1.65826E-07	7.3297E-07	3.87888E-06	4.77767E-06	2.29978E-06	0	1.03251E-08	2.3101E-06	1.92703E-05	0	9.19574E-09	1.92795E-05	0.024640588	0.185284588
Placer (SV)	2035	UBUS	Aggregated	Aggregated	GAS	0.000696474	1.08793E-05	0	2.11371E-07	1.10907E-05	1.44016E-05	0.000268631	0.000294123	8.19145E-05	0	1.88362E-07	8.21029E-05	0.000113473	0	1.78589E-05	0.000131331	0.875746585	0.194562775

Fuel	% VMT by Fuel Type	Weighted Ave Fuel
Gasoline	0.86132001	0.02831079
Diesel	0.098201712	0.079774063

*remaining 5% VMT is electric and not accounted for in fuel consumption calculation

Roseville Electric Utility GHG Emission Factor Forecasted

RPS reduces share in other energy sources on weighted basis from their 2018 contribution to power content la

Roseville Electric - Power Content Label	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
RPS*	32.0%	28.0%	40.0%	40.0%	40.0%	42.0%	44.0%	46.0%	48.0%	50.0%	52.0%	54.0%	56.0%	58.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Large Hydroelectric*	14.0%	29.0%	13.0%	13.0%	13.0%	12.6%	12.1%	11.7%	11.3%	10.8%	10.4%	10.0%	9.5%	9.1%	8.7%	8.7%	8.7%	8.7%	8.7%	8.7%
Natural Gas	33.0%	3.0%	22.0%	22.0%	22.0%	21.3%	20.5%	19.8%	19.1%	18.3%	17.6%	16.9%	16.1%	15.4%	14.7%	14.7%	14.7%	14.7%	14.7%	14.7%
Nuclear*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unspecified	21.0%	40.0%	25.0%	25.0%	25.0%	24.2%	23.3%	22.5%	21.7%	20.8%	20.0%	19.2%	18.3%	17.5%	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

GHG-Free Energy Sources	46.00%	57.00%	53.00%	53.00%	53.00%	54.57%	56.13%	57.70%	59.27%	60.83%	62.40%	63.97%	65.53%	67.10%	68.67%	68.67%	68.67%	68.67%	68.67%	68.67%
Non-Renewable	54.0%	43.0%	47.0%	47.0%	47.0%	45.4%	43.9%	42.3%	40.7%	39.2%	37.6%	36.0%	34.5%	32.9%	31.33%	31.33%	31.33%	31.33%	31.33%	31.33%
Non-Renewable MT CO2e/MWh	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Power Mix MT CO2e/MWh	0.23	0.18	0.20	0.20	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.15	0.15	0.14	0.13	0.13	0.13	0.13	0.13	0.13
Power Mix lbs CO2e/MWh	**509.94**	**406.07**	**443.84**	**443.84**	**443.84**	**429.04**	**414.25**	**399.45**	**384.66**	**369.87**	**355.07**	**340.28**	**325.48**	**310.69**	**295.89**	**295.89**	**295.89**	**295.89**	**295.89**	**295.89**

*GHG-free energy sources are considered to include those sources elligible under the RPS standards (biomass & biowaste; geothermal; eligible hydroelectric; solar; and wind), large hydroelectric, and nuc

Conversion Factor

MT/lbs
0.000453592
2204.62

RPS Contribution over Time:

2020	2030	2045
40%	60%	60%