APPENDIX D: AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

CRITERIA AIR POLLUTANT & GREENHOUSE GAS EMISSIONS SUMMARY RESULTS

MENLO PARK + SOI - GHG EMISSIONS INVENTORY

Forecasting BAAQMD's GHG Target	6.6	1.3	4.0
	2020	2050	2035
	BAAQMD AB 32	S-03-05	estimate*
		80% Below 1990	40% Below 1990
	1990 Levels	Levels	Levels

	$MTCO_2e$ Business as Usual Forecasts						**$MTCO_2e$ Adjusted BAU**			
SECTORS	**2012**	**Percent of Total**	**2020**	**Percent of Total**	**2035**	**Percent of Total**	**2020**	**Percent of Total**	**2035**	**Percent of Total**
Transportation	331,010	55%	350,582	55%	366,934	53%	260,539	53%	240,092	49%
Residential (Natural Gas and Electricity)	72,293	12%	77,330	12%	85,397	12%	64,148	13%	70,840	14%
Nonresidential* (Natural Gas and Electricity)	175,450	29%	184,482	29%	203,277	30%	138,343	28%	152,438	31%
City (Natural Gas and Electricity)	1,900	0.3%	2,021	0.3%	2,230	0.3%	1,411	0.3%	1,556	0.3%
Waste	6,808	1%	7,242	1%	7,989	1%	7,242	1%	7,989	2%
Water/Wastewater	3,187	1%	3,411	1%	3,790	1%	1,883	0.4%	2,092	0.4%
Other - Offroad Equipment	16,606	3%	17,585	3%	19,382	3%	15,826	3%	17,443	4%
Total Community Emissions	607,253		642,652		688,998		489,392		492,451	
Service Population	70,700		75,211		82,970		75,211		82,970	
$MTCO_2e$/SP	8.6		8.5		8.3		6.5		5.9	
BAAQMD GHG GP Threshold (PLAN LEVEL)	NA		6.6		4.0		6.6		4.0	
Marsh Road Landfill	28,350	4%	26,649	4%	26,649	4%	26,649	5%	26,649	5%
Total Community w/ Marsh Road Landfill	635,603		669,301		715,647		516,041		519,100	
$MTCO_2e$/SP with Marsh Road Landfill	9.0		8.9		8.6		6.9		6.3	

Notes:

Emissions forecast based on changes in population (residential energy), employment (nonresidential energy), or service population (city energy, waste, water/wastewater, transportation)

Transportation. EMFAC2011 and TKJM. Transportation sector includes the full trip length and does not proportion 50 percent of the trip length for trips that occur outside of the City boundaries. Per the Regional Targets Advisory Committee (RTAC) under Senate Bill 375 (SB 375), 50 percent of the trip length for intrajurisdictional trips are the responsibility of the adjacent/corresponding jurisdiction while the other 50 percent. External-External trips include 100 percent of the trip length and therefore the transportation sector modeling is overly conservative. Transit (buses and trains) operations are under the jurisdiction of samTrans and CalTrain (San Mateo County Transit District) and are excluded from the analysis.

Energy. Energy use based on a three year (2008-2010) average provided by PG&E. Nonresidential* includes direct access customers, county facilities, and other district facilities within the City boundaries. PG&E energy based on PG&E's carbon intensity. Direct access energy based on the eGrid carbon intensity.

Water/Wastewater. Includes fugitive emissions from wastewater processing and energy associated with water/wastewater treatment and conveyance. Water use is estimated based on demand rates included in the Water Supply Assessment for the Housing Element Update. Assumes wastewater is 45 percent of total water use.

Waste. WARM2012 and Calrecycle. Waste generation based on waste commitment for the City of Menlo Park obtained from CalRecycle.

Other Sources. OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Construction is estimated based on housing permit data for Menlo Park from ABAG. Daily construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays.

Excludes waste-in-place emissions from the closed Marsh Road Landfill. These are part of the City's Municipal Inventory but are excluded from the Community inventory conducted for the Proposed Land Use Plan as part of this environmental assessment because those emissions are not associated with the existing or future land uses in the City of Menlo Park (but past disposal from within and outside of the City).

Adjusted BAU includes reductions identified in the Scoping Plan associated with Transportation (Pavely+LCFS), Energy & Water/Wastewater (improvements in the carbon intensity of electricity identified by PG&E), and Other (LCFS). The current inventory does not account for reductions in building energy use from Title 24 cycle updates.

MENLO PARK + SOI - CRITERIA AIR POLLUTANT INVENTORY

EXISTING	2012 - lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	1,717	2,156	17,095	21	265	119
Energy - Residential (Natural Gas)	27	227	96	1	18	18
Energy - Nonresidential* (Natural Gas)	42	382	321	2	29	29
Energy - City (Natural Gas)	0	4	3	0	0	0
Area Sources (Landscaping, Light Commercial Equipment)	155	149	2,909	0	16	16
Other (Construction Equipment)	118	791	757	1	51	50
Total	2,059	3,709	21,182	26	380	233
	2012 - tons/year					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	313	393	3,120	4	48	22
Energy - Residential (Natural Gas)	5	41	18	0	3	3
Energy - Nonresidential* (Natural Gas)	8	70	59	0	5	5
Energy - City (Natural Gas)	0	1	1	0	0	0
Area Sources (Landscaping, Light Commercial Equipment)	28	27	531	0	3	3
Other (Construction Equipment)**	21	137	131	0	9	9
Total	375	670	3,859	5	69	42

Transportion. EMFAC2011 and TJKM 2012. Transportation sector includes the full trip length.

Source: 2010 and 2035 VMT is based on data provided by TJKM using the C/CAG model provided by VTA. The VMT provided by VTA is adjusted based on the Population and Employment used in the C/CAG model compared to the population and employment estimated identified by the City.

Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Energy. PG&E data in 2008 CAP. Nonresidential* includes direct access customers, county facilities, and other district facilities within the City boundaries.
Area Sources. OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Does not include emissions from wood-burning fireplaces.

Other Sources. OFFROAD2007. Estimated based on housing permit data for Menlo Park from ABAG. ** Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites.

MENLO PARK + SOI - CRITERIA AIR POLLUTANT INVENTORY

EXISTING w/2035 EMISSION RATES	2035 Existing Land Uses - lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	567	606	5,032	21	255	110
Energy - Residential (Natural Gas)	27	227	96	1	18	18
Energy - Nonresidential* (Natural Gas)	42	382	321	2	29	29
Energy - City (Natural Gas)	0	4	3	0	0	0
Area Sources (Landscaping, Light Commercial Equipment)	155	149	2,909	0	16	16
Other (Construction Equipment)	118	791	757	1	51	50
Total	910	2,159	9,119	26	370	224
	2035 - tons/year					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	104	111	918	4	47	20
Energy - Residential (Natural Gas)	5	41	18	0	3	3
Energy - Nonresidential* (Natural Gas)	8	70	59	0	5	5
Energy - City (Natural Gas)	0	1	1	0	0	0
Area Sources (Landscaping, Light Commercial Equipment)	28	27	531	0	3	3
Other (Construction Equipment)**	21	137	131	0	9	9
Total	165	387	1,657	5	67	40

Notes:

Emissions forecasts estimated based on changes in population (residential energy), employment (nonresidential energy), or service population (transportation)

Transportion. EMFAC2011 and TJKM 2012. Transportation sector includes the full trip length.

Energy. Based on three-year average (2010-2008) of energy use provided by PG&E . Nonresidential* includes direct access customers, county facilities, and other district facilities within the City boundaries.

Area Sources. OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Does not include emissions from wood-burning fireplaces.

Other Sources. OFFROAD2007. Estimated based on housing permit data for Menlo Park from ABAG. ** Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites.

MENLO PARK + SOI - CRITERIA AIR POLLUTANT INVENTORY

PROJECT	2035 Project Land Uses - lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	634	677	5,620	23	285	123
Energy - Residential (Natural Gas)	31	268	114	2	22	22
Energy - Nonresidential* (Natural Gas)	49	445	374	3	34	34
Energy - City (Natural Gas)	0	4	4	0	0	0
Area Sources (Landscaping, Light Commercial Equipment)	183	174	3,409	0	19	19
Other (Construction Equipment)	139	928	889	1	60	59
Total	1,036	2,497	10,409	29	419	257
Change from Current (2035 Emission Rates)	**126**	**338**	**1,290**	**3**	**50**	**32**
BAAQMD GHG Threshold (PROJECT LEVEL)	54	54	NA	NA	82	54
	2035 - tons/year					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	116	123	1,026	4	52	22
Energy - Residential (Natural Gas)	6	49	21	0	4	4
Energy - Nonresidential* (Natural Gas)	9	81	68	0	6	6
Energy - City (Natural Gas)	0	1	1	0	0	0
Area Sources (Landscaping, Light Commercial Equipment)	33	32	622	0	3	3
Other (Construction Equipment)**	180	169	162	0	11	11
Total	343	456	1,900	5	77	47
Change from Existing (2012 Emission Rates)	**-31**	**-214**	**-1,959**	**1**	**8**	**5**
Change from Current (2035 Emission Rates)	**178**	**69**	**242**	**1**	**9**	**6**
BAAQMD GHG Threshold (PROJECT LEVEL)	10	10	NA	NA	15	10

Notes:

Emissions forecasts estimated based on changes in population (residential energy), employment (nonresidential energy), or service population (transportation)

Transportion. EMFAC2011 and TJKM 2012. Transportation sector includes the full trip length.

Energy. PG&E data in 2008 CAP. Nonresidential* includes direct access customers, county facilities, and other district facilities within the City boundaries.

Area Sources. OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Does not include emissions from wood-burning fireplaces.

Other Sources. OFFROAD2007. Estimated based on housing permit data for Menlo Park from ABAG. ** Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites.

HOUSING ELEMENT SITES - CRITERIA AIR POLLUTANT AND GHG INVENTORY

Derived Emission Rates from Communitywide Inventory - For the Housing Element Update Sites

	DERIVED EMISSION RATE: (2012 emission rates) lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation - Per Mile/Day	7.298E-04	9.165E-04	7.268E-03	8.950E-06	1.127E-04	5.057E-05
Energy - Residential (Natural Gas) - Per Person	7.220E-04	6.170E-03	2.625E-03	3.938E-05	4.988E-04	4.988E-04
Area Sources (Landscaping) - Per Person	2.455E-03	6.452E-04	3.186E-02	2.318E-06	8.676E-05	8.589E-05
Note: Transportation assumes 33.3 miles per person per day for 2012 based on the Santa Clara VTA model for Menlo Park.						
	DERIVED EMISSION RATE: (2035 emission rates) lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation - Per Mile/Day	2.160E-04	2.306E-04	1.915E-03	7.931E-06	9.708E-05	4.196E-05
Energy - Residential (Natural Gas) - Per Person	6.750E-04	5.768E-03	2.454E-03	3.682E-05	4.663E-04	4.663E-04
Area Sources (Landscaping) - Per Person	2.711E-03	7.125E-04	3.519E-02	2.560E-06	9.581E-05	9.485E-05
Note: Transportation assumes 31.7 miles per person per day for 2035 based on the Santa Clara VTA model for Menlo Park.						

SECTORS	**DERIVED EMISSION RATE: BAU $MTCO_2e$/Year/Person (2020 emission rates)**	**DERIVED EMISSION RATE: ABAU $MTCO_2e$/Year/Person (2020) emission rates)**
Transportation - Per Mile/Day	4.038E-04	3.001E-04
Energy - Residential (Natural Gas) - Per Person	1.968E+00	1.632E+00
Waste - Per Person	9.629E-02	9.629E-02
Water/Wastewater - Per Person	4.536E-02	2.504E-02
Area Sources (Landscaping) - Per Person	1.931E-02	1.738E-02
Note: Transportation assumes 33.3 miles per person per day for 2020 based on the Santa Clara VTA model for Menlo Park, assuming similar trip lengths as 2012 conditions.		

HOUSING ELEMENT SITES - CRITERIA AIR POLLUTANT AND GHG INVENTORY

CRITERIA AIR POLLUTANT INVENTORY - Operational Inventory for the Housing Element Update Sites

Housing Element Sites	**1,318 Units**
People (2.55 persons/household)	**3,361 People**

	2012 - lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	82	103	813	1	13	6
Energy - Residential (Natural Gas)	2	21	9	0	2	2
Area Sources (Landscaping)	8	2	107	0	0	0
Total	92	125	929	1	15	8
BAAQMD GHG Threshold (PROJECT LEVEL)	54	54	NA	NA	82	54
	2012- tons/year					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	15	19	148	0	2	1
Energy - Residential (Natural Gas)	0	4	2	0	0	0
Area Sources (Landscaping)	2	0	20	0	0	0
Total	17	23	170	0	3	1
BAAQMD GHG Threshold (PROJECT LEVEL)	10	10	NA	NA	15	10

Notes:

Transportation. EMFAC2011 and TJKM 2012. Assumes residents and employees within Menlo Park drive, on average, 33.1 miles per day in 2012 based on the Santa Clara VTA model.

Energy. Based on residential energy use within the City of Menlo Park (Residential Energy Use/Residents) provided by PG&E.

Area Sources. OFFROAD2007. Estimated based on Landscaping Emissions for Residential Areas (Landscaping/Residents) in Menlo Park.

	2035 - lbs/day					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	23	25	204	1	10	4
Energy - Residential (Natural Gas)	2	19	8	0	2	2
Area Sources (Landscaping)	9	2	118	0	0	0
Total	34	46	331	1	12	6
BAAQMD GHG Threshold (PROJECT LEVEL)	54	54	NA	NA	82	54
	2035- tons/year					
SECTORS	**ROG**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Transportation	4	4	37	0	2	1
Energy - Residential (Natural Gas)	0	4	2	0	0	0
Area Sources (Landscaping)	2	0	22	0	0	0
Total	6	8	60	0	2	1
BAAQMD GHG Threshold (PROJECT LEVEL)	10	10	NA	NA	15	10

Notes:

Transportation. EMFAC2011 and TJKM 2012. Assumes residents and employees within Menlo Park drive, on average, 31.7 miles per day in 2035 based on the Santa Clara VTA model.

Energy. Based on residential energy use within the City of Menlo Park (Residential Energy Use/Residents) provided by PG&E.

Area Sources. OFFROAD2007. Estimated based on Landscaping Emissions for Residential Areas (Landscaping/Residents) in Menlo Park.

HOUSING ELEMENT SITES - CRITERIA AIR POLLUTANT AND GHG INVENTORY

GREENHOUSE GAS EMISSIONS INVENTORY - Operational Inventory for the Housing Element Update Sites

SECTORS	$MTCO_2e$ - 2020 BAU	$MTCO_2e$ - 2020 ABAU
Transportation	16,495	12,259
Residential (Natural Gas and Electricity)	6,613	5,486
Waste	324	324
Water/Wastewater	152	84
Area Sources (Landscaping)	65	58
Total	23,650	18,211
Total Without Waste	23,326	17,887
Service Population	3,361	3,361
$MTCO_2e$/SP	7.0	5.4
$MTCO_2e$/SP without waste	6.9	5.3
BAAQMD GHG Threshold (PROJECT LEVEL)	4.6	4.6

Notes:

Transportation. EMFAC2011 and TJKM 2012. Assumes residents and employees within Menlo Park drive, on average, 33.3 miles per day in 2020 based on the Santa Clara VTA model, assuming similar trip lengths as 2012 conditions. The Adjusted BAU scenario includes

Energy. Based on residential energy use within the City of Menlo Park (Residential Energy Use/Residents) provided by PG&E. The Adjusted BAU for 2020 is based on PG&E's 2020 Energy Coefficient. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Water/Wastewater. Based on per capita (includes employees + residents) water/wastewater use for Menlo Park.

Waste. WARM2012 and Cal recycle. Based on per capita disposal rates.

Area Sources. OFFROAD2007. Estimated based on Landscaping Emissions for Residential Areas (Landscaping/Residents) in Menlo Park.

Model Inputs

	Demographic Forecast				
	From CAP		For Environmental Assessment		
	2005-City	2008-City	2012-City+SOI	2020-City+SOI	2035-City+SOI
Population City	30,000	32,000	32,513	34,600	38,500
Population Sphere of Influence (SOI)	NA	4,160	4,227	4,700	4,900
Population used in Analysis:	30,000	32,000	36,740	39,300	43,400
Jobs City	28,709	29,400	30,321	32,293	35,990
Jobs Sphere of Influence (SOI)	NA	NA	3,639	3,618	3,580
Jobs used in Analysis:	28,709	29,400	33,960	35,911	39,570
Service Population	**58,709**	**61,400**	**70,700**	**75,211**	**82,970**

Sources

13,020

2005 population approximated at 30,000 people in the 2005 Climate Action Plan

2008 population approximated at 32,000 people in the 2009 update to the CAP

2012 population identified in Chapter 3, Project Description

Model Inputs

Note: highlighted areas are the model inputs. The remaining areas are automatically updated based on the change in Population and Employment

Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Sector Inputs

	2005	2008	2012	2020	2035
Residential Electricity (Kwh)	74,173,621	79,118,529	90,837,961	97,167,444	107,304,505
Commercial + Industrial Electricity (Kwh)	245,652,545	251,562,992	290,580,925	307,277,386	338,583,251
City (Kwh)	4,041,868	4,227,114	4,227,114	4,496,842	4,960,730
Direct Access Energy (Kwh)	56,244,556	46,416,202	53,615,450	56,696,135	62,472,419
Total Electricity (Kwh)	323,868,034	334,908,635	385,646,000	408,941,672	450,848,487
Residential Natural Gas (Therms)	7,330,744	7,819,460	8,977,718	9,603,274	10,605,143
Commercial+Industrial Natural Gas (Therms)	12,027,238	12,316,616	14,226,948	15,044,413	16,577,159
City (Therms)	136,063	142,299	142,299	151,379	166,995
Total Natural Gas (Therms)	19,494,044	20,278,374	23,346,964	24,799,066	27,349,297
VMT/year	1,952,890	2,042,395	2,351,748	2,501,810	2,627,448
Water (AF/year)	6,371	6,695	7,794	8,342	9,267
Water (gallons/year)	2,075,993,199	2,181,686,919	2,539,764,107	2,718,255,408	3,019,664,201
Wastewater (gallons/year)	931,845,000	979,287,431	1,140,016,492	1,220,135,361	1,355,427,845
Indoor Water as a Percent of Total Water Use	45%	45%	45%	45%	45%
Waste Generation (tons/year)	38,656	32,653	37,598	39,998	44,124
Waste Generation ADC (tons/year)	763	1,667	1,920	2,042	2,253
Total Waste Disposal (tons/year)	39,419	34,320	39,518	42,040	46,376
WIP Marsh Road Landfill (lbs CH_4)	3,417,165	2,976,241	2,976,241	2,797,666	2,797,666
WIP Marsh Road Landfill (MTons CH_4)	1,550	1,350	1,350	1,269	1,269
WIP Marsh Road Landfill (MTons CO_2e)	32,550	28,350	28,350	26,649	26,649

Sources

Electricity and natural gas identified provided by PG&E and based on a three-year average of 2010, 2009, and 2008 data. Commercial/Industrial includes direct access energy. 2012 City energy use assumed to be similar to average 2010-2008 energy use. Forecasts in energy are based on the change in population and employment.

VMT provided by TJKM based on the C/CAG model provided by Santa Clara VTA and adjusted for Population and Employment.

Total water generation for 2008 in the City of Menlo Park is based on the Water Supply Assessment (WSA) demand calculations. The Menlo Park Municipal Water District (MPMWD) serves approximately 40% the population of Menlo Park while most of the rest of the City is within the Bear Gulch District of the California Water Company. Forecasts are adjusted for increases in population and employment and are based on the Target per capita SBx7-7 for MPMWD of 210 gpcd (Target per capita for Bear Gulch is 190 gpcd) and adjusted for the percent of the allocation for residential and non-residential based on the 2010 demand included in the WSA (i.e., 130.2 gpcd/resident and 79.8 gpcd/employee).

2005 wastewater based on the 2005 Climate Action Plan. Population in Menlo Park in 2005 (30,000 people) was used as a proxy for estimating wastewater generation in the City (217,000) in the CAP. Note: 2005 CAP identified 18,949 kwh/day consumed at the plant and 7,945 kwh generated from methane capture. Wastewater forecasts assume indoor water is percentage of total water use (based on wastewater and total water generation for 2005 base year).

Waste generation based on waste commitment for the City of Menlo Park obtained from CalRecycle. Forecasts are based on 2008 disposal rate and adjusted for increases in population and employment.

March Road Landfill is located within the corporate boundaries of Menlo Park but ceased operations in 1984. CO_2 emissions generated from waste-in-place (WIP) are biogenic in nature and not included. Methane emissions from WIP are identified in the 2005 Climate Action Plan. Landfill gas in 2005 was based on a landfill gas capture rate of 65.20% and 5 million metric tons of WIP. Per the 2005 CAP, in 2020 there will be less waste in place (4.7 million metric tons) and emissions would decrease 6% from baseline. The methane rate was revised in the 2011 update to the CAP based on data available from Fortistar (operator). Because the data input is no longer available, an approximation of total CH4 for 2005 and 2008 is based on the Bayfront Park Landfill Emissions Table of page 41 of the CAP Assessment Report while 2012 is assumed to be the same as 2008 and 2020 and 2035 are forecasted based on the anticipated 6 percent decrease in WIP from 2008.

TABLE 1 **AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS**

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	*[a]	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	*[a]	
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	
Respirable Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^{3, b}$	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	*	35 $\mu g/m^3$	
Lead (Pb)	30-Day Average	1.5 $\mu g/m^3$	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 $\mu g/m^3$	
	Rolling 3-Month	*	0.15 $\mu g/m^3$	

TABLE 1 **AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS**

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
	Average			
Sulfates (SO_4)	24 hours	25 $\mu g/m^3$	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Notes: ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.

[a] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked.

[b] On December 14, 2012, EPA lowered the federal primary $PM_{2.5}$ annual standard from 15.0 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The new annual standard will become effective 60 days after publication in the Federal Register. EPA made no changes to the primary 24-hour $PM_{2.5}$ standard or to the secondary $PM_{2.5}$ standards.

Source: California Air Resources Board (CARB), 2012. Ambient Air Quality Standards, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

WATER & WASTEWATER GREENHOUSE GAS EMISSIONS

Water and Wastewater

Water Demand Calculations Derived from the Water Supply Assessment

	2010 Population	Percent of Total	
Menlo Park (entire City)	32,077	100%	
Menlo Park Municipal Water District	14,198	40%	
Bear Gulch-Total	64,573	26%	Menlo Park% of Bear Gulch
Bear Gulch-Menlo Park Estimate	16,583	60%	

	AFY Residential	AFY Nonresidential	AFY Total	
Menlo Park (entire City)	**4,293**	**2,412**	**6,706**	
Menlo Park Municipal Water District	1,504	1,887	3,391	
Bear Gulch-Menlo Park Estimate	2,789	525	3,315	based on City as a % of Bear Gulch
Bear Gulch-Total	10,861	2,046	12,907	includes system losses

	gpcd Total	gpcd Population	gpcd Employee	
Existing Rate (not SBX7-7)	192.7	119.5	73.3	Based on 2008 employment in the City, calc. from demand in WSA. Used for 2005 and 2008 inputs
Percent	100%	62%	38%	
SBX7-7 Rate for MPMWD per UWMP	210	130.2	79.8	Used to calc. Future Water Demand. Used for increase over Baseline for 2012, 2020, and 2035 inputs

Total water generation for 2008 in the City of Menlo Park is based on the Water Supply Assessment (WSA) demand calculations. The Menlo Park Municipal Water District (MPMWD) serves approximately 40% the population of Menlo Park while most of the rest of the City is within the Bear Gulch District of the California Water Company. Forecasts are adjusted for increases in population and employment and are based on the Target per capita SBx7-7 for MPMWD of 210 gpcd (Target per capita for Bear Gulch is 190 gpcd) and adjusted for the percent of the allocation for residential and non-residential based on the 2010 demand included in the WSA (i.e., 130.2 gpcd/resident and 79.8 gpcd/employee).

Water and Wastewater

Fugitive Emissions - Process Emissions from WWTP with Nitrification/Denitrification

CH_4 - Microorganisms can biodegrade soluble organic material in wastewater under aerobic (presence of oxygen) or anaerobic (absence of oxygen) conditions. Anaerobic conditions result in the production of CH_4.

N_2O - Treatment of domestic wastewater during both nitrification and denitrification of the nitrogen present leads to the formation of N_2O, usually in the form of urea, ammonia, and proteins. These compounds are converted to nitrate through the aerobic process of nitrification. Denitrification occurs under anoxic conditions (without free oxygen), and involves the biological conversion of nitrate into dinitrogen. N_2O can be an intermediate product of both processes, but more often is associated with denitrification.

Notes: Waste discharge facilities in compliance with the United States Environmental Protection Agency's Clean Water Standards do not typically result in CH_4 emissions. However, poorly-operated aerobic wastewater treatment systems can result in the generation of CH_4. Because wastewater treatment systems are assumed to operate in compliance with state and federal laws pertaining to water quality, CH_4 emissions from centralized aerobic treatments are not included in the inventory.

Fugitive Emissions - Process Emissions from WWTP with Nitrification/Denitrification

LGOP Version 1.1. Equation 10.9.

N_2O = Wastewater x 10^-6 x Nload x EF effluent x 10^3

	2005	2008	2012	2020	2035
wastewater (Liters)=	3,527,033,325	3,706,602,928	4,314,962,423	4,618,212,340	5,130,294,393

10^-6 =	1.00E-06	conversion factor; kg/mg	
N Load	40.00	mg/L of wastewater	USEPA 2008
EF effluent	0.01	kg/N_2O/kg N	
10^-3 =	1.00E-03	conversion factor: MTons/kg	

	2005	2008	2012	2020	2035
			MTons		
N_2O	0.71	0.74	0.86	0.92	1.03
CO_2e =	219	230	268	286	318

Source: California Air Resources Board (CARB). 2010, May. Local Government Operations Protocol (LGOP), Version 1.1. The LGOP protocol provides default values for all the terms except the Nitrogen Load, which is assumed to be 40 mg of N per Liter of wastewater effluent based on USEPA methodology outlined in the CalEEMod program manual. South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. User's Manual. USEPA. 2008. Page 8-12. USEPA cites Metcalf & Eddy, Inc., 1991, "Wastewater Engineering: Treatment Disposal, and Reuse," 3rd Ed. McGraw Hill Publishing.

Water and Wastewater

Energy for Water Conveyance, Treatment, Distribution, and Wastewater Treatment (Northern California)

Water Supply and Conveyance	Water Treatment	Water Distribution	Total Water	Wastewater Treatment
	kWhr/million gallons			
2,117	111	1,272	3,500	1,911

Source: California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California.

	Intensity factor				CO_2e
	lbs CO_2/MWH	MTons CO_2/MWh	CH_4 MTons/MWH	N_2O MTons/MWH	MTons/MWh
2005	489	0.222	0.000013	0.000005	0.224
2006	456	0.207	0.000013	0.000005	0.209
2007	636	0.288	0.000013	0.000005	0.290
2008	641	0.291	0.000013	0.000005	0.293
2009	575	0.261	0.000013	0.000005	0.263
2010	559	0.254	0.000013	0.000005	0.256
3-Year Average (2006-2008) based on PG&E	578	0.262	0.000013	0.000005	**0.264**
2020 (CO_2)	290	0.133	0.000013	0.000005	**0.135**
2010 and earlier is based on PG&E's third-party-verified GHG inventory submitted to the California Climate Action Registry (CCAR) (2003-2008) or The Climate Registry (TCR).			Source: CH_4 and N_2O intensity based on California E-Grid data (CH_4 = 0.029 lbs/MWH; N_2O = 0.011		

Note: The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF_6.

GHG Emissions from Energy Associated with Water/Wastewater

Energy Associated with Water Use	2005	2008	2012	2020	2035
	MwH/Year				
Water	7,266	7,636	8,889	9,514	10,569
Wastewater	1,781	1,871	2,179	2,332	2,590
Total Water/Wastewater	9,047	9,507	11,068	11,846	13,159

GHG Emissions from Energy Associated with Water Use/Wastewater Generation	2005	2008	2012	2020	2035
	$MTCO_2e$/Year				
Water	1,917	2,015	2,345	2,510	2,788
Wastewater	470	494	575	615	683
Total Water/Wastewater	2,387	2,508	2,920	3,125	3,472

Total GHGs

GHG Emissions from Water/Wastewater Use	2005	2008	2012	2020	2035
	$MTCO_2e$/Year				
Water	1,917	2,015	2,345	2,510	2,788
Wastewater	688	724	842	901	1,001
Total Water/Wastewater	2,605	2,738	3,187	3,411	3,790

GHG Emissions from Energy Use - Adjusted for Lower Carbon Intensity in 2020

GHG Emissions from Water/Wastewater Use		2020	2035
	$MTCO_2e$/Year		
Water		1,283	1,425
Wastewater		601	667
Total Water/Wastewater		1,883	2,092

Water and Wastewater

General Conversion Factors

	Global Warming Potentials (GWP)
CO_2	1
CH_4	21
N_2O	310

Source: Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2011.

gallons to Liters	3.785
killowatt hrs to megawatt hrs	0.001
gallons to AF	325851.4290

ENERGY – PURCHASED ELECTRICITY (GHGS) & NATURAL GAS (CRITERIA AIR POLLUTANTS AND GHGS)

Community Wide GHG Inventory Report for Menlo Park 2005 to 2010

Provided to:	Vanessa Marcadejas
	vamarcadejas@menlopark.org
from	City of Menlo Park
Date:	1/24/2012
Provided by (PG&E Representative):	John Joseph
	Green Communities and Innovator Pilots
Contact Iinformation	GHGDataRequests@pge.com
	(415) 973-5737

RATE DATA ANALYSIS: GHG_PHASE1 GAS AND ELECTRIC GHG SUMMARY - Menlo Park

TOTCITY	YEAR	CATEGORY	RES ELEC USE(KWH)	COM ELEC USE(KWH)	Residential + Commercial (KWH)	RES GAS USE(THM)	COM GAS AVG(THM)	COM GAS USE(THM)	Residential + Commercial (THM)
MENLO PARK	2008	NONGOVENT	78,492,630	254,893,248	333,385,878	7,355,881	1,161	11,916,985	19,272,866
MENLO PARK	2008	(3) COUNTY	0	21,807	21,807	0	43	1,039	1,039
MENLO PARK	2008	(4) CITY	0	4,137,181	4,137,181	0	1,164	153,674	153,674
MENLO PARK	2008	(5) DISTRICT	251	2,965,629	2,965,880	29	364	69,165	69,194
		Excludes City	80,009,436	261,122,445	336,373,565	8,686,899	13,383,129	13,227,887	19,343,099
MENLO PARK	2009	NONGOVENT	79,173,955	245,710,715	324,884,670	7,464,020	1,140	11,713,883	19,177,903
MENLO PARK	2009	(3) COUNTY	0	18,959	18,959	0	50	1,206	1,206
MENLO PARK	2009	(4) CITY	0	4,201,920	4,201,920	0	1,080	141,786	141,786
MENLO PARK	2009	(5) DISTRICT	0	2,870,621	2,870,621	0	349	62,514	62,514
		Excludes City	79,173,955	248,600,295	327,774,250	7,464,020	1,539	11,777,603	19,241,623
MENLO PARK	2010	NONGOVENT	78,172,197	242,239,088	320,411,285	7,307,461	1,153	11,890,618	19,198,079
MENLO PARK	2010	(3) COUNTY	0	17,833	17,833	0	68	1,639	1,639
MENLO PARK	2010	(4) CITY	1,087	4,341,153	4,342,240	52	966	131,384	131,436
MENLO PARK	2010	(5) DISTRICT	0	2,709,314	2,709,314	0	348	52,100	52,100
		Excludes City	78,172,197	244,966,235	323,138,432	7,307,461	1,569	11,944,357	19,251,818
		Average Community	**79,118,529**	**251,562,992**	**329,095,416**	**7,819,460**	**4,462,079**	**12,316,616**	**19,278,847**
		Average City Facilities	**362**	**4,226,751**	**4,227,114**	**17**	**1,070**	**142,281**	**142,299**

Source: PG&E 2012

Direct Access Energy - BAU and ABAU worksheet

Direct Access Electricity		
Year	Energy (kWh)	CO_2e (metric tonnes)
2005	56,244,556	22,371
2006	57,468,481	21,472
2007	54,375,159	21,663
2008	48,842,688	20,472
2009	43,507,231	16,126
2010	46,898,687	15,850
2011	83,766,503	31,828
Average 2010-2008	46,416,202	17,483

Source: City of Menlo Park, providedPG&E

Grid EF (lbs/MWh)				MT/MWh
Column1	CO_2	CH_4	N_2O	CO_2e
2000	873.26	0.042	0.01	0.398
2001	1,077.36	0.046	0.012	0.491
2002	934.55	0.045	0.012	0.426
2003	945.18	0.044	0.012	0.431
2004	937.82	0.041	0.012	0.427
2005	876.86	0.04	0.011	0.400
2006	823.72	0.039	0.01	0.375
2007	878.31	0.039	0.01	0.400
2008	924.05	0.038	0.011	0.421
2009	817.13	0.04	0.006	0.372
2010	745.09	0.044	0.006	0.339
2011	844.19	0.04	0.01	0.385
Average 2010-2008	828.76	0.04	0.01	0.377

ABAU Carbon Intensity for Direct Access Energy

	2010	2020
Assumed Percent Renewable	15.4%	33%
CO_2e	0.377	0.299

Based on the 3 public utilities (PG&E, SCE, SDG&E) RPS in 2008-2010 average. Municipal energy and other energy providers typically have higher carbon intensity and lower RPS (higher carbon intensity = a portfolio with higher percentage of coal and gas, and less renewables). Therefore, this is a conservative assumption. Note: this is higher than PG&E's 2020 carbon intensity.

Source: California Public Utilities Commission (CPUC). California RPS Procurement Summary 2003-20010. http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm

Energy

Energy Emission Factors

	Intensity factor				CO_2e
	lbs CO_2/MWH	MTons CO_2/MWh	CH_4 MTons/MWH	N_2O MTons/MWH	MTons/MWh
2005	489	0.222	0.000013	0.000005	0.224
2006	456	0.207	0.000013	0.000005	0.209
2007	636	0.288	0.000013	0.000005	0.290
2008	641	0.291	0.000013	0.000005	0.293
2009	575	0.261	0.000013	0.000005	0.263
2010	559	0.254	0.000013	0.000005	0.256
3-Year Average (2008-2010) based on PG&E	592	0.269	0.000013	0.000005	**0.270**
2020 (CO_2)	290	0.133	0.000013	0.000005	**0.135**
Source: Pacific Gas & Electric (PG&E). 2011, April. Greenhouse Gas Emissions Factors Info Sheet. *CO2 intensity for 2010 and earlier is based on PG&E's third-party-verified GHG inventory submitted to the California Climate Action Registry (CCAR) (2003-2008) or The Climate Registry (TCR).			Source: CH_4 and N_2O intensity based on California E-Grid data (CH_4 = 0.029 lbs/MWH; N_2O = 0.011 lbs/MWH)		

Note: The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF_6.

Natural Gas	**Intensity factor**				**CO_2e**
	lbs CO_2/Therm	**MTons CO_2/Therm**	**CH_4 MTons/Therm**	**N_2O MTons/Therm**	**MTons/Therm**
All Years	11.7	0.00530	5.E-07	1.E-08	**0.00532**
Source: CO2, CH4 and N2O intensity based on Table G.3 of the LGOP for residential and non-residential (CO_2, 53.02 kg/Mmbtu; CH_4: 0.005 kg/MMBtu; N_2O: 0.0001 kg/MMBtu)					

GHG Emissions from Energy Use

	2005	2008	2012	2020	2035
Electricity	**$MTCO_2e$/Year**				
Residential Electricity	20,063	21,401	24,571	26,283	29,025
Commercial + Industrial	66,446	68,045	78,599	83,115	91,583
City	1,093	1,143	1,143	1,216	1,342
Direct Access	21,226	17,517	20,234	21,396	23,576
Total	108,829	108,106	124,547	132,011	145,526

	2005	2008	2012	2020	2035
Natural Gas	**$MTCO_2e$/Year**				
Residential Electricity	38,967	41,565	47,722	51,047	56,373
Commercial + Industrial	63,932	65,470	75,625	79,970	88,118
City	723	756	756	805	888
Total	103,623	107,792	124,103	131,822	145,378

	2005	2008	2012	2020	2035
Summary	**$MTCO_2e$/Year**				
Residential Total	59,030	62,966	72,293	77,330	85,397
Commercial + Industrial Total	130,378	133,515	154,224	163,085	179,701
City Total	1,817	1,900	1,900	2,021	2,230
Direct Access	21,226	17,517	20,234	21,396	23,576
Total	212,451	215,898	248,650	263,833	290,904

GHG Emissions from Energy Use - Adjusted for Lower Carbon Intensity in 2020

		2020	2035
Electricity		**$MTCO_2e$/Year**	
Residential Electricity		13,100	14,467
Commercial + Industrial		41,428	45,649
City		606	669
Direct Access (not adjusted)		16,945	18,671
Total		55,135	60,785

		2020	2035
Natural Gas		**$MTCO_2e$/Year**	
Residential Electricity		51,047	56,373
Commercial + Industrial		79,970	88,118
City		805	888
Total		131,822	145,378

		2020	2035
Summary		**$MTCO_2e$/Year**	
Residential Total		64,148	70,840
Commercial + Industrial Total		121,398	133,766
City Total		1,411	1,556
Direct Access (not adjusted)		16,945	18,671
Total		203,902	224,834

General Conversion Factors

lbs to kg	0.4536
kg to MTons	0.001
Mmbtu to Therm	0.1
killowatt hrs to megawatt hrs	0.001
lbs to Tons	2000
Tons to MTon	0.9071847

Source: California Air Resources Board (CARB). 2010. Local Government Operations Protocol. Version 1.1. Appendix F, Standard Conversion Factors

	Global Warming Potentials (GWP)
CO_2	1
CH_4	21
N_2O	310

Source: Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2011.

Therms to kwh	29.30711111

Criteria Air Pollutants from Natural Gas

Rate	lbs/MBTU					
Natural Gas	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Residential	0.01078431	0.09215686	0.03921569	0.00058824	0.00745098	0.00745098
Non-Residential	0.01078431	0.09803922	0.08235294	0.00058824	0.00745098	0.00745098

Source: CalEEMod Version 2011.1.1.

Natural Gas	2012 lbs/day					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Residential	27	227	96	1	18	18
Commercial + Industrial	42	382	321	2	29	29
City	0	4	3	0	0	0
Total	69	613	421	4	48	48

Natural Gas	2035 lbs/day					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Residential	31	268	114	2	22	22
Commercial + Industrial	49	445	374	3	34	34
City	0	4	4	0	0	0
Adjusted Daily vehicles miles tra	81	718	492	4	56	56
Increase from Baseline	12	105	71	1	8	8

General Conversion Factors	
Mmbtu to Therm	0.1
lbs to Tons	2000
Tons to MTon	0.9071847

Source: California Air Resources Board (CARB). 2010. Local Government Operations Protocol. Version 1.1. Appendix F, Standard Conversion Factors

WASTE DISPOSAL - EPA WARM MODEL (2012)

GREENHOUSE GAS EMISSIONS

WARM OUTPUTs

Baseline 2012		**TONS MSW**		**TONS ADC**	**TOTAL**		**MTons CO2e**
		37,598		1,920	39,518		27,230
	MSW	**TONS MSW**	**ADC**	**TONS ADC**		**TOTAL**	**MTons CO2e With 75% Landfill Recovery**
Inputs For WARM	%	37,598	%	1,920	39,518	%	6,808
Aluminum Cans	0.1%	45		0	45	0.1%	
Aluminum Ingot	0.2%	80		0	80	0.2%	
Steel Cans	0.6%	243		0	243	0.6%	
Copper Wire	2.0%	759		0	759	1.9%	
Glass	1.4%	536		0	536	1.4%	
HDPE	0.4%	149		0	149	0.4%	
LDPE	4.3%	1,607		0	1,607	4.1%	
PET	0.5%	189		0	189	0.5%	
LLDPE	1.2%	459		0	459	1.2%	
PP	0.0%	0		0	0	0.0%	
PS	0.0%	0		0	0	0.0%	
PVC	0.0%	0		0	0	0.0%	
PLA	0.0%	0		0	0	0.0%	
Corrugated Containers	0.4%	154		0	154	0.4%	
Magazines/Third-class Mail	0.7%	268		0	268	0.7%	
Newspaper	1.3%	473		0	473	1.2%	
Office Paper	1.8%	692		0	692	1.8%	
Phonebooks	0.1%	23		0	23	0.1%	
Textbooks	0.0%	0		0	0	0.0%	
Dimensional Lumber	14.5%	5,457		0	5,457	13.8%	
Medium-density Fiberboard	0.0%	0		0	0	0.0%	
Food Scraps	15.5%	5,829		0	5,829	14.7%	
Yard Trimmings	2.7%	1,002	58.1%	1,115	2,117	5.4%	
Grass	3.8%	1,432		0	1,432	3.6%	
Leaves	0.0%	0		0	0	0.0%	
Branches	0.6%	233		0	233	0.6%	
Mixed Paper (general)	13.4%	5,036		0	5,036	12.7%	
Mixed Paper (primarily residential)	0.0%	0		0	0	0.0%	
Mixed Paper (primarily from offices)	0.0%	0		0	0	0.0%	
Mixed Metals	1.6%	586	15.7%	302	887	2.2%	
Mixed Plastics	2.8%	1,046		0	1,046	2.6%	
Mixed Recyclables	0.0%	0		0	0	0.0%	
Mixed Organics	4.4%	1,647	12.4%	237	1,884	4.8%	
Mixed MSW	4.8%	1,796	0.5%	9	1,805	4.6%	
Carpet	3.2%	1,217		0	1,217	3.1%	
Personal Computers	0.5%	205		0	205	0.5%	
Clay Bricks	3.2%	1,192		0	1,192	3.0%	
Concrete	1.2%	458		0	458	1.2%	
Fly Ash	0.1%	39	0.1%	1	40	0.1%	
Tires	0.2%	57	1.3%	25	82	0.2%	
Asphalt Concrete	0.3%	123	12.0%	231	353	0.9%	
Asphalt Shingles	2.8%	1,062		0	1,062	2.7%	
Drywall	7.1%	2,667		0	2,667	6.7%	
Fiberglass Insulation	2.2%	839		0	839	2.1%	
Vinyl Flooring	0.0%	0		0	0	0.0%	
Wood Flooring	0.0%	0		0	0	0.0%	
	100%	37,598	100.0%	1,920	39,518	100.0%	

Assumes a 75 percent of fugitive GHG emissions are captured within the landfill's Landfill Gas Capture System with a landfill gas capture efficiency of 75%. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.1. Because the landfill gas captured is not under the jurisdiction of Menlo Park, the landfill gas emissions from the capture system are not included in Menlo Park's inventory. Only fugitive sources of GHG emissions from landfill are included.

Does not include tonnage from alternative daily cover (ADC) disposed of in Menlo Park

Version 12

Waste Reduction Model (WARM) -- Inputs

Use this worksheet to describe the baseline and alternative MSW management scenarios that you want to compare. The blue shaded areas indicate where you need to enter information.

1. Describe the baseline generation and management for the MSW materials listed below. If the material is not generated in your community or you do not want to analyze it, leave it blank or enter 0. Make sure that the total quantity generated equals the total quantity managed.

2. Describe the alternative management scenario for the MSW materials generated in the baseline. Any decrease in generation should be entered in the Source Reduction column. Any increase in generation should be entered in the Source Reduction column as a negative value. (Make sure that the total quantity generated equals the total quantity managed.)

Material	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Tons Generated	Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted
Aluminum Cans		45		NA	45.3			45		NA
Aluminum Ingot		80		NA	79.8			80		NA
Steel Cans		243		NA	243.4			243		NA
Copper Wire		759		NA	758.8			759		NA
Glass		536		NA	535.6			536		NA
HDPE		149		NA	149.3			149		NA
LDPE	NA	1,607		NA	1606.6		NA	1,607		NA
PET		189		NA	189.0			189		NA
LLDPE	NA	459		NA	459.4		NA	459		NA
PP	NA	-		NA	0.0		NA	-		NA
PS	NA	-		NA	0.0		NA	-		NA
PVC	NA	-		NA	0.0		NA	-		NA
PLA	NA	-			0.0		NA	-		
Corrugated Containers		154		NA	154.3			154		NA
Magazines/Third-class Mail		268		NA	267.9			268		NA
Newspaper		473		NA	473.2			473		NA
Office Paper		692		NA	692.2			692		NA
Phonebooks		23		NA	22.9			23		NA
Textbooks		-		NA	0.0			-		NA
Dimensional Lumber		5,457		NA	5457.1			5,457		NA
Medium-density Fiberboard		-		NA	0.0			-		NA
Food Scraps	NA	5,829			5828.8		NA	5,829		
Yard Trimmings	NA	2,117			2117.3		NA	2,117		
Grass	NA	1,432			1431.9		NA	1,432		
Leaves	NA	-			0.0		NA	-		
Branches	NA	233			232.7		NA	233		
Mixed Paper (general)		5,036		NA	5036.1	NA		5,036		NA
Mixed Paper (primarily residential)		-		NA	0.0	NA		-		NA
Mixed Paper (primarily from offices)		-		NA	0.0	NA		-		NA
Mixed Metals		887		NA	887.3	NA		887		NA
Mixed Plastics		1,046		NA	1045.6	NA		1,046		NA
Mixed Recyclables		-		NA	0.0	NA		-		NA
Mixed Organics	NA	1,884			1884.3	NA	NA	1,884		
Mixed MSW	NA	1,805		NA	1804.8	NA	NA	1,805		NA
Carpet		1,217		NA	1216.7			1,217		NA
Personal Computers		205		NA	204.7			205		NA
Clay Bricks	NA	1,192	NA	NA	1192.0		NA	1,192	NA	NA
Concrete [1]		458	NA	NA	457.5	NA		458	NA	NA
Fly Ash [2]		40	NA	NA	40.0	NA		40	NA	NA
Tires [3]		82		NA	81.5			82		NA
Asphalt Concrete		353	NA	NA	353.5			353	NA	NA
Asphalt Shingles		1,062		NA	1061.9			1,062		NA
Drywall		2,667	NA	NA	2667.1			2,667	NA	NA
Fiberglass Insulation	NA	839	NA	NA	839.4		NA	839	NA	NA
Vinyl Flooring	NA	-		NA	0.0		NA	-		NA
Wood Flooring	NA	-		NA	0.0		NA	-		NA

Please enter data in short tons (1 short ton = 2,000 lbs.)

Please refer to the User's Guide if you need assistance completing this table.

[1] Recycled concrete used as aggregate in the production of new concrete

[2] Recycled fly ash is utilized to displace portland cement in concrete production.

[3] Recycling tires is defined in this analysis as using tires for crumb rubber applications and tire-derived aggregate uses in civil engineering applications

GHG Emissions Analysis -- Summary Report

Version 12

GHG Emissions Waste Management Analysis for TPC/DC&E
Prepared by: Menlo Park 2012
Project Period for this Analysis: 01/00/00 to 01/00/00

Note: If you wish to save these results, rename this file (e.g., WARM-MN1) and save it. Then the "Analysis Inputs" sheet of the "WARM" file will be blank when you are ready to make another model run.

GHG Emissions from Baseline Waste Management ($MTCO_2E$): 27,230

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$
Aluminum Cans	-	45.3	-	NA	2
Aluminum Ingot	-	79.8	-	NA	3
Steel Cans	-	243.4	-	NA	9
Copper Wire	-	758.8	-	NA	29
Glass	-	535.6	-	NA	21
HDPE	-	149.3	-	NA	6
LDPE	NA	1,606.6	-	NA	62
PET	-	189.0	-	NA	7
LLDPE	NA	459.4	-	NA	18
Corrugated Containers	-	154.3	-	NA	229
Magazines/third-class mail	-	267.9	-	NA	37
Newspaper	-	473.2	-	NA	(228)
Office Paper	-	692.2	-	NA	2,570
Phonebooks	-	22.9	-	NA	(11)
Dimensional Lumber	-	5,457.1	-	NA	404
Food Scraps	NA	5,828.8	-	-	8,314
Yard Trimmings	NA	2,117.3	-	-	427
Grass	NA	1,431.9	-	-	737
Branches	NA	232.7	-	-	17
Mixed Paper (general)	-	5,036.1	-	NA	6,807
Mixed Metals	-	887.3	-	NA	34
Mixed Plastics	-	1,045.6	-	NA	41
Mixed Organics	NA	1,884.3	-	-	1,557
Mixed MSW	NA	1,804.8	-	NA	5,587
Carpet	-	1,216.7	-	NA	47
Personal Computers	-	204.7	-	NA	8
Clay Bricks	NA	1,192.0	NA	NA	46
Concrete	-	457.5	NA	NA	18
Fly Ash	-	40.0	NA	NA	2
Tires	-	81.5	-	NA	3
Asphalt Concrete	-	353.5	NA	NA	14
Asphalt Shingles	-	1,061.9	-	NA	41
Drywall	-	2,667.1	NA	NA	338
Fiberglass Insulation	NA	839.4	NA	NA	33
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0

GHG Emissions from Alternative Waste Management Scenario ($MTCO_2E$): 27,230

Commodity	Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$	Change (Alt - Base) $MTCO_2E$
Aluminum Cans	-	-	45.3	-	NA	2	0
Aluminum Ingot	-	-	79.8	-	NA	3	0
Steel Cans	-	-	243.4	-	NA	9	0
Copper Wire	-	-	758.8	-	NA	29	0
Glass	-	-	535.6	-	NA	21	0
HDPE	-	-	149.3	-	NA	6	0
LDPE	-	NA	1,606.6	-	NA	62	0
PET	-	-	189.0	-	NA	7	0
LLDPE	-	NA	459.4	-	NA	18	0
Corrugated Containers	-	-	154.3	-	NA	229	0
Magazines/third-class mail	-	-	267.9	-	NA	37	0
Newspaper	-	-	473.2	-	NA	(228)	0
Office Paper	-	-	692.2	-	NA	2,570	0
Phonebooks	-	-	22.9	-	NA	(11)	0
Dimensional Lumber	-	-	5,457.1	-	NA	404	0
Food Scraps	-	NA	5,828.8	-	-	8,314	0
Yard Trimmings	-	NA	2,117.3	-	-	427	0
Grass	-	NA	1,431.9	-	-	737	0
Branches	-	NA	232.7	-	-	17	0
Mixed Paper (general)	NA	-	5,036.1	-	NA	6,807	0
Mixed Metals	NA	-	887.3	-	NA	34	0
Mixed Plastics	NA	-	1,045.6	-	NA	41	0
Mixed Organics	NA	NA	1,884.3	-	-	1,557	0
Mixed MSW	NA	NA	1,804.8	-	NA	5,587	0
Carpet	-	-	1,216.7	-	NA	47	0
Personal Computers	-	-	204.7	-	NA	8	0
Clay Bricks	-	NA	1,192.0	NA	NA	46	0
Concrete	NA	-	457.5	NA	NA	18	0
Fly Ash	NA	-	40.0	NA	NA	2	0
Tires	-	-	81.5	-	NA	3	0
Asphalt Concrete	-	-	353.5	NA	NA	14	0
Asphalt Shingles	-	-	1,061.9	-	NA	41	0
Drywall	-	-	2,667.1	NA	NA	338	0
Fiberglass Insulation	-	NA	839.4	NA	NA	33	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

Total Change in GHG Emissions ($MTCO_2E$): -

Note: a negative value (i.e., a value in parentheses) indicates an emission reduction; a positive value indicates an emission increase.

This is equivalent to…

Removing annual emissions from	-	Passenger Vehicles
Conserving	-	Gallons of Gasoline
Conserving	-	Cylinders of Propane Used for Home Barbeques
Conserving	-	Railway Cars of Coal
	0.00000%	Annual CO_2 emissions from the U.S. transportation sector
	0.00000%	Annual CO_2 emissions from the U.S. electricity sector

a) For explanation of methodology, see the EPA report:
Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks (EPA530-R-06-004)
-- available on the Internet at http://epa.gov/climatechange/wycd/waste/downloads/fullreport.pdf (5.6 Mb PDF file).

b) Emissions estimates provided by this model are intended to support voluntary GHG measurement and reporting initiatives.

c) The GHG emissions results estimated in WARM indicate the full life-cycle benefits waste management alternatives. Due to the timing of the GHG emissions from the waste management pathways, (e.g., avoided landfilling and increased recycling), the actual GHG implications may accrue over the long-term. Therefore, one should not interpret the GHG emissions implications as occurring all in one year, but rather through time.

Waste Reduction Model (WARM) -- Results

Total GHG Emissions from Baseline MSW Generation and Management ($MTCO_2E$):	27,230
Total GHG Emissions from Alternative MSW Generation and Management ($MTCO_2E$):	27,230
Incremental GHG Emissions ($MTCO_2E$):	-

$MTCO_2E$ = metric tons of carbon dioxide equivalent

Per Ton Estimates of GHG Emissions for Alternative Management Scenarios

Material	GHG Emissions per Ton of Material Source Reduced ($MTCO_2E$)	GHG Emissions per Ton of Material Recycled ($MTCO_2E$)	GHG Emissions per Ton of Material Landfilled ($MTCO_2E$)	GHG Emissions per Ton of Material Combusted ($MTCO_2E$)	GHG Emissions per Ton of Material Composted ($MTCO_2E$)
Aluminum Cans	(4.94)	(8.89)	0.04	0.05	NA
Aluminum Ingot	(7.27)	(6.97)	0.04	0.05	NA
Steel Cans	(3.18)	(1.80)	0.04	(1.55)	NA
Copper Wire	(7.26)	(4.89)	0.04	0.04	NA
Glass	(0.53)	(0.28)	0.04	0.04	NA
HDPE	(1.47)	(0.86)	0.04	1.69	NA
LDPE	(1.79)	NA	0.04	1.70	NA
PET	(2.22)	(1.11)	0.04	1.47	NA
LLDPE	(1.57)	NA	0.04	1.70	NA
PP	(1.55)	NA	0.04	1.70	NA
PS	(2.50)	NA	0.04	2.02	NA
PVC	(1.98)	NA	0.04	0.84	NA
PLA	(2.18)	NA	(1.62)	(0.44)	(0.20)
Corrugated Containers	(5.59)	(3.11)	1.49	(0.33)	NA
Magazines/third-class mail	(8.64)	(3.07)	0.14	(0.23)	NA
Newspaper	(4.85)	(2.78)	(0.48)	(0.38)	NA
Office Paper	(7.99)	(2.85)	3.71	(0.32)	NA
Phonebooks	(6.27)	(2.65)	(0.48)	(0.38)	NA
Textbooks	(9.11)	(3.11)	3.71	(0.32)	NA
Dimensional Lumber	(2.02)	(2.46)	0.07	(0.40)	NA
Medium-density Fiberboard	(2.22)	(2.47)	0.07	(0.40)	NA
Food Scraps	0.00	NA	1.43	(0.07)	(0.20)
Yard Trimmings	0.00	NA	0.20	(0.09)	(0.20)
Grass	0.00	NA	0.51	(0.09)	(0.20)
Leaves	0.00	NA	(0.30)	(0.09)	(0.20)
Branches	0.00	NA	0.07	(0.09)	(0.20)
Mixed Paper (general)	NA	(3.52)	1.35	(0.34)	NA
Mixed Paper (primarily residential)	NA	(3.52)	1.21	(0.33)	NA
Mixed Paper (primarily from offices)	NA	(3.59)	1.43	(0.30)	NA
Mixed Metals	NA	(3.97)	0.04	(1.06)	NA
Mixed Plastics	NA	(0.98)	0.04	1.58	NA
Mixed Recyclables	NA	(2.80)	1.02	(0.29)	NA
Mixed Organics	NA	NA	0.83	(0.08)	(0.20)
Mixed MSW	NA	NA	3.10	0.07	NA
Carpet	(3.96)	(2.37)	0.04	1.26	NA
Personal Computers	(54.15)	(2.35)	0.04	(0.13)	NA
Clay Bricks	(0.28)	NA	0.04	NA	NA
Concrete	NA	(0.01)	0.04	NA	NA
Fly Ash	NA	(0.87)	0.04	NA	NA
Tires	(4.32)	(0.39)	0.04	0.51	NA
Asphalt Concrete	(0.11)	(0.08)	0.04	NA	NA
Asphalt Shingles	(0.20)	(0.09)	0.04	(0.34)	NA
Drywall	(0.22)	0.03	0.13	NA	NA
Fiberglass Insulation	(0.39)	NA	0.04	NA	NA
Vinyl Flooring	(0.62)	NA	0.04	(0.14)	NA
Wood Flooring	(4.06)	NA	0.07	(0.53)	NA

GHG Emissions from Baseline Management of Municipal Solid Wastes

Material	Baseline Generation of Material (Tons)	Estimated Recycling (Tons)	Annual GHG Emissions from Recycling ($MTCO_2E$)	Estimated Landfilling (Tons)	Annual GHG Emissions from Landfilling ($MTCO_2E$)	Estimated Combustion (Tons)	Annual GHG Emissions from Combustion ($MTCO_2E$)	Estimated Composting (Tons)	Annual GHG Emissions from Composting ($MTCO_2E$)	Total Annual GHG Emissions ($MTCO_2E$)
Aluminum Cans	45.3	0.0	0.0	45.3	1.8	0.0	0.0	NA	NA	1.8
Aluminum Ingot	79.8	0.0	0.0	79.8	3.1	0.0	0.0	NA	NA	3.1
Steel Cans	243.4	0.0	0.0	243.4	9.4	0.0	0.0	NA	NA	9.4
Copper Wire	758.8	0.0	0.0	758.8	29.5	0.0	0.0	NA	NA	29.5
Glass	535.6	0.0	0.0	535.6	20.8	0.0	0.0	NA	NA	20.8
HDPE	149.3	0.0	0.0	149.3	5.8	0.0	0.0	NA	NA	5.8
LDPE	1,606.6	NA	NA	1,606.6	62.4	0.0	0.0	NA	NA	62.4
PET	189.0	0.0	0.0	189.0	7.3	0.0	0.0	NA	NA	7.3
LLDPE	459.4	NA	NA	459.4	17.8	0.0	0.0	NA	NA	17.8
PP	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PS	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PVC	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PLA	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corrugated Containers	154.3	0.0	0.0	154.3	229.4	0.0	0.0	NA	NA	229.4
Magazines/third-class mail	267.9	0.0	0.0	267.9	37.0	0.0	0.0	NA	NA	37.0
Newspaper	473.2	0.0	0.0	473.2	(227.9)	0.0	0.0	NA	NA	(227.9)
Office Paper	692.2	0.0	0.0	692.2	2,570.4	0.0	0.0	NA	NA	2,570.4
Phonebooks	22.9	0.0	0.0	22.9	(11.0)	0.0	0.0	NA	NA	(11.0)
Textbooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Dimensional Lumber	5,457.1	0.0	0.0	5,457.1	403.9	0.0	0.0	NA	NA	403.9
Medium-density Fiberboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Food Scraps	5,828.8	NA	NA	5,828.8	8,314.3	0.0	0.0	0.0	0.0	8,314.3
Yard Trimmings	2,117.3	NA	NA	2,117.3	426.8	0.0	0.0	0.0	0.0	426.8
Grass	1,431.9	NA	NA	1,431.9	737.3	0.0	0.0	0.0	0.0	737.3
Leaves	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Branches	232.7	NA	NA	232.7	17.2	0.0	0.0	0.0	0.0	17.2
Mixed Paper (general)	5,036.1	0.0	0.0	5,036.1	6,807.2	0.0	0.0	NA	NA	6,807.2
Mixed Paper (primarily residential)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Paper (primarily from offices)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Metals	887.3	0.0	0.0	887.3	34.4	0.0	0.0	NA	NA	34.4
Mixed Plastics	1,045.6	0.0	0.0	1,045.6	40.6	0.0	0.0	NA	NA	40.6
Mixed Recyclables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Organics	1,884.3	NA	NA	1,884.3	1,556.9	0.0	0.0	0.0	0.0	1,556.9
Mixed MSW	1,804.8	NA	NA	1,804.8	5,586.9	0.0	0.0	NA	NA	5,586.9
Carpet	1,216.7	0.0	0.0	1,216.7	47.2	0.0	0.0	NA	NA	47.2
Personal Computers	204.7	0.0	0.0	204.7	7.9	0.0	0.0	NA	NA	7.9
Clay Bricks	1,192.0	NA	NA	1,192.0	46.3	NA	NA	NA	NA	46.3
Concrete	457.5	0.0	0.0	457.5	17.8	NA	NA	NA	NA	17.8
Fly Ash	40.0	0.0	0.0	40.0	1.6	NA	NA	NA	NA	1.6
Tires	81.5	0.0	0.0	81.5	3.2	0.0	0.0	NA	NA	3.2
Asphalt Concrete	353.5	0.0	0.0	353.5	13.7	NA	NA	NA	NA	13.7
Asphalt Shingles	1,061.9	0.0	0.0	1,061.9	41.2	0.0	0.0	NA	NA	41.2
Drywall	2,667.1	0.0	0.0	2,667.1	337.6	NA	NA	NA	NA	337.6
Fiberglass Insulation	839.4	NA	NA	839.4	32.6	NA	NA	NA	NA	32.6
Vinyl Flooring	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Wood Flooring	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Total	39,518.0	0.0	0.0	39,518.0	27,230.3	0.0	0.0	0.0	0.0	27,230.3

GHG Emissions from Projected Alternative Management of Municipal Solid Wastes

Material	Baseline Generation of Material (Tons)	Projected Source Reduction (Tons)	Annual GHG Emissions from Source Reduction ($MTCO_2E$)	Projected Recycling (Tons)	Annual GHG Emissions from Recycling ($MTCO_2E$)	Projected Landfilling (Tons)	Annual GHG Emissions from Landfilling ($MTCO_2E$)	Projected Combustion (Tons)	Annual GHG Emissions from Combustion ($MTCO_2E$)	Projected Composting (Tons)	Annual GHG Emissions from Composting ($MTCO_2E$)	Total Annual GHG Emissions ($MTCO_2E$)
Aluminum Cans	45.3	0.0	0.0	0.0	0.0	45.3	1.8	0.0	0.0	NA	NA	1.8
Aluminum Ingot	79.8	0.0	0.0	0.0	0.0	79.8	3.1	0.0	0.0	NA	NA	3.1
Steel Cans	243.4	0.0	0.0	0.0	0.0	243.4	9.4	0.0	0.0	NA	NA	9.4
Copper Wire	758.8	0.0	0.0	0.0	0.0	758.8	29.5	0.0	0.0	NA	NA	29.5
Glass	535.6	0.0	0.0	0.0	0.0	535.6	20.8	0.0	0.0	NA	NA	20.8
HDPE	149.3	0.0	0.0	0.0	0.0	149.3	5.8	0.0	0.0	NA	NA	5.8
LDPE	1,606.6	0.0	0.0	NA	NA	1,606.6	62.4	0.0	0.0	NA	NA	62.4
PET	189.0	0.0	0.0	0.0	0.0	189.0	7.3	0.0	0.0	NA	NA	7.3
LLDPE	459.4	0.0	0.0	NA	NA	459.4	17.8	0.0	0.0	NA	NA	17.8
PP	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PS	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PVC	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PLA	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corrugated Containers	154.3	0.0	0.0	0.0	0.0	154.3	229.4	0.0	0.0	NA	NA	229.4
Magazines/third-class mail	267.9	0.0	0.0	0.0	0.0	267.9	37.0	0.0	0.0	NA	NA	37.0
Newspaper	473.2	0.0	0.0	0.0	0.0	473.2	(227.9)	0.0	0.0	NA	NA	(227.9)
Office Paper	692.2	0.0	0.0	0.0	0.0	692.2	2,570.4	0.0	0.0	NA	NA	2,570.4
Phonebooks	22.9	0.0	0.0	0.0	0.0	22.9	(11.0)	0.0	0.0	NA	NA	(11.0)
Textbooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Dimensional Lumber	5,457.1	0.0	0.0	0.0	0.0	5,457.1	403.9	0.0	0.0	NA	NA	403.9
Medium-density Fiberboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Food Scraps	5,828.8	0.0	0.0	NA	NA	5,828.8	8,314.3	0.0	0.0	0.0	0.0	8,314.3
Yard Trimmings	2,117.3	0.0	0.0	NA	NA	2,117.3	426.8	0.0	0.0	0.0	0.0	426.8
Grass	1,431.9	0.0	0.0	NA	NA	1,431.9	737.3	0.0	0.0	0.0	0.0	737.3
Leaves	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Branches	232.7	0.0	0.0	NA	NA	232.7	17.2	0.0	0.0	0.0	0.0	17.2
Mixed Paper (general)	5,036.1	NA	NA	0.0	0.0	5,036.1	6,807.2	0.0	0.0	NA	NA	6,807.2
Mixed Paper (primarily residential)	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Paper (primarily from offices)	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Metals	887.3	NA	NA	0.0	0.0	887.3	34.4	0.0	0.0	NA	NA	34.4
Mixed Plastics	1,045.6	NA	NA	0.0	0.0	1,045.6	40.6	0.0	0.0	NA	NA	40.6
Mixed Recyclables	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Organics	1,884.3	NA	NA	NA	NA	1,884.3	1,556.9	0.0	0.0	0.0	0.0	1,556.9
Mixed MSW	1,804.8	NA	NA	NA	NA	1,804.8	5,586.9	0.0	0.0	NA	NA	5,586.9
Carpet	1,216.7	0.0	0.0	0.0	0.0	1,216.7	47.2	0.0	0.0	NA	NA	47.2
Personal Computers	204.7	0.0	0.0	0.0	0.0	204.7	7.9	0.0	0.0	NA	NA	7.9
Clay Bricks	1,192.0	0.0	0.0	NA	NA	1,192.0	46.3	NA	NA	NA	NA	46.3
Concrete	457.5	NA	NA	0.0	0.0	457.5	17.8	NA	NA	NA	NA	17.8
Fly Ash	40.0	NA	NA	0.0	0.0	40.0	1.6	NA	NA	NA	NA	1.6
Tires	81.5	0.0	0.0	0.0	0.0	81.5	3.2	0.0	0.0	NA	NA	3.2
Asphalt Concrete	353.5	0.0	0.0	0.0	0.0	353.5	13.7	NA	NA	NA	NA	13.7
Asphalt Shingles	1,061.9	0.0	0.0	0.0	0.0	1,061.9	41.2	0.0	0.0	NA	NA	41.2
Drywall	2,667.1	0.0	0.0	0.0	0.0	2,667.1	337.6	NA	NA	NA	NA	337.6
Fiberglass Insulation	839.4	0.0	0.0	NA	NA	839.4	32.6	NA	NA	NA	NA	32.6
Vinyl Flooring	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Wood Flooring	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Total	39,518.0	0.0	0.0	0.0	0.0	39,518.0	27,230.3	0.0	0.0	0.0	0.0	27,230.3

Incremental GHG Emissions from Projected Alternative Management of Municipal Solid Wastes

Material	Source Reduction (Tons)	Incremental GHG Emissions from Source Reduction ($MTCO_2E$)	Incremental Recycling (Tons)	Incremental GHG Emissions from Recycling ($MTCO_2E$)	Incremental Landfilling (Tons)	Incremental GHG Emissions from Landfilling ($MTCO_2E$)	Incremental Combustion (Tons)	Incremental GHG Emissions from Combustion ($MTCO_2E$)	Incremental Composting (Tons)	Incremental GHG Emissions from Composting ($MTCO_2E$)	Total Incremental GHG Emissions ($MTCO_2E$)
Aluminum Cans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Aluminum Ingot	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Steel Cans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Copper Wire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Glass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
HDPE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
LDPE	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
LLDPE	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PP	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PS	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PVC	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
PLA	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corrugated Containers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Magazines/third-class mail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Newspaper	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Office Paper	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Phonebooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Textbooks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Dimensional Lumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Medium-density Fiberboard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Food Scraps	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yard Trimmings	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grass	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Leaves	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Branches	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed Paper (general)	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Paper (primarily residential)	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Paper (primarily from offices)	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Metals	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Plastics	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Recyclables	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Mixed Organics	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixed MSW	NA	NA	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Carpet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Personal Computers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Clay Bricks	0.0	0.0	NA	NA	0.0	0.0	NA	NA	NA	NA	0.0
Concrete	NA	NA	0.0	0.0	0.0	0.0	NA	NA	NA	NA	0.0
Fly Ash	NA	NA	0.0	0.0	0.0	0.0	NA	NA	NA	NA	0.0
Tires	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Asphalt Concrete	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	0.0
Asphalt Shingles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.0
Drywall	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	0.0
Fiberglass Insulation	0.0	0.0	NA	NA	0.0	0.0	NA	NA	NA	NA	0.0
Vinyl Flooring	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Wood Flooring	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	NA	NA	0.0
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a) For explanation of methodology, see the EPA report:
Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks (EPA530-R-06-004)
-- available on the Internet at http://epa.gov/climatechange/wycd/waste/downloads/fullreport.pdf (5.6 Mb PDF file).

b) Emissions estimates provided by this model are intended to support voluntary GHG measurement and reporting initiatives.

CalRecycle. 2008 Waste Characterization Study

Material Classes in California's Overall Disposed Waste Stream (Detailed)

	Categories in WARM	Tons	Percent	Percent by Category
Paper				17.3%
Uncoated Corrugated Cardboard	Mixed Paper (general)	1,905,897	4.8%	
Paper Bags	Mixed Paper (general)	155,848	0.4%	
Newspaper	Newspaper	499,960	1.3%	
White Ledger Paper	Office Paper	259,151	0.7%	
Other Office Paper	Office Paper	472,147	1.2%	
Maganizes and Catalogs	Magazines/Third-class Mail	283,069	0.7%	
Phone Books and Directories	Phonebooks	24,149	0.1%	
Other Miscellaneous Paper	Mixed Paper (general)	1,202,354	3.0%	
Remainder/Composite Paper	Mixed Paper (general)	2,056,546	5.2%	
Glass				1.4%
Clear Glass Bottles and Containers	Glass	196,093	0.5%	
Green Glass Bottles and Containers	Glass	79,491	0.2%	
Brown Glass Bottles and Containers	Glass	108,953	0.3%	
Other Colored Glass Bottles and Containers	Glass	40,570	0.1%	
Flat Glas	Glass	33,899	0.1%	
Remainder/Composite Glass	Glass	106,838	0.3%	
Metal				4.6%
Tin/Steel Cans	Steel Cans	236,405	0.6%	
Major Appliances	Steel Cans	17,120	0.0%	
Used Oil Filters	Steel Cans	3,610	0.0%	
Other Ferrous	Copper Wire	801,704	2.0%	
Aluminum Cans	Aluminum Cans	47,829	0.1%	
Other Non-Ferrous	Aluminum Ingot	84,268	0.2%	
Remainder/Composite Metal	Mixed Metals	618,747	1.6%	
Electronics				0.5%
Brown Goods	Personal Computers	76,725	0.2%	
Computer-Related Electronnics	Personal Computers	32,932	0.1%	
Other Small Consumer Electronics	Personal Computers	34,588	0.1%	
Video Display Devices	Personal Computers	72,053	0.2%	
Plastic				9.6%
PETE Containers	PET	199,644	0.5%	
HDPE Containers	HDPE	157,779	0.4%	
Miscellaneous Plastic Containers	Corrugated Containers	163,008	0.4%	
Plastic Trash Bags	LLDPE	361,997	0.9%	
Plastic Grocery and Other Merchandise Bags	LLDPE	123,405	0.3%	
Non-Bag Commercial and Industrial Packaging Film	LDPE	194,863	0.5%	
Film Products	LDPE	113,566	0.3%	
Other Film	LDPE	554,002	1.4%	
Durable Plastic Items	LDPE	834,970	2.1%	
Remainder/Composite Plastic	Mixed Plastics	1,104,719	2.8%	
Other Organic				32.4%
Food	Food Scraps	6,158,120	15.5%	
Leaves and Grass	Grass (assume leaves too)	1,512,832	3.8%	
Prunings and Trimmings	Yard Trimmings	1,058,854	2.7%	
Branches and Stumps	Branches	245,830	0.6%	
Manures	Mixed Organics	20,373	0.1%	
Textiles	Fiberglass Insulation	886,814	2.2%	
Carpet	Carpet	1,285,473	3.2%	
Remainder/Composite Organic	Mixed Organics	1,719,743	4.3%	

Inerts and Other				29.1%
Concrete	Concrete	483,367	1.2%	
Asphalt Paving	Asphalt Concrete	129,834	0.3%	
Asphalt Roofing	Asphalt Shingles	1,121,945	2.8%	
Lumber	Dimensional Lumber	5,765,482	14.5%	
Gypsum Board	Drywall	642,511	1.6%	
Rock, Soil and Fines	Clay Bricks	1,259,308	3.2%	
Remainder/Composite Inerts and Other	Drywall	2,175,322	5.5%	
Household Hazardous Wastes				0.3%
Paint	Mixed MSW	48,025	0.1%	
Vehicle and Equipment Fuels	Mixed MSW	6,424	0.0%	
Used Oil	Mixed MSW	3,348	0.0%	
Batteries	Mixed MSW	19,082	0.0%	
Remainder/Composite Household Hazardous Wast	Mixed MSW	43,873	0.1%	
Special Waste				3.9%
Ash	Fly Ash	40,736	0.1%	
Treated Medical Waste	Mixed MSW	0	0.0%	
Bulky Itmes	Mixed MSW	1,393,091	3.5%	
Tires	Tires	60,180	0.2%	
Remainder/Composite Special Waste	Mixed MSW	52,463	0.1%	
Mixed Residue				0.8%
Mixed Residue	Mixed MSW	330,891	0.8%	
TOTAL		**39,722,820**	**100.0%**	

CalRecycle. Statewide Alternative Daily Cover (ADC) by Material Type

http://www.calrecycle.ca.gov/LGCentral/Reports/ReportViewer.aspx?ReportName=ReportEdrsAnnualQuarterADC

Total of ADC by Material Type

Year	Ash	Auto Shred	C&D	Compost	Contaminated Sediment	Green Material	Mixed	Other	Sludge	Tires	Total
2006	2,255	683,064	383,619	0	77	2,656,850	28,145	126,052	298,998	40,931	4,219,992
2007	1,566	632,495	358,784	3,379	40,960	2,307,255	12,588	172,311	326,680	66,042	3,922,060
2008	5,282	622,055	746,300	679	63,232	2,195,876	17,894	256,033	235,743	49,638	4,192,731

Percent of ADC by Material Type

	Ash	Auto Shred	C&D	Compost	Contaminated Sediment	Green Material	Mixed	Other	Sludge	Tires	Total
2006	0.05%	16.19%	9.09%	0.00%	0.00%	62.96%	0.67%	2.99%	7.09%	0.97%	100.00%
2007	0.04%	16.13%	9.15%	0.09%	1.04%	58.83%	0.32%	4.39%	8.33%	1.68%	100.00%
2008	0.13%	14.84%	17.80%	0.02%	1.51%	52.37%	0.43%	6.11%	5.62%	1.18%	100.00%
Average	0.07%	15.72%	12.01%	0.03%	0.85%	58.05%	0.47%	4.50%	7.01%	1.28%	100.00%

HALF MOON BAY, CALIFORNIA (043714)

Period of Record Monthly Climate Summary

Period of Record : 7/ 1/1939 to 9/30/2012

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	58.4	59.3	59.8	60.7	61.7	63.4	64.2	65.1	66.8	65.8	62.7	58.9	62.2
Average Min. Temperature (F)	42.9	43.5	43.8	44.6	47.4	49.8	51.9	52.7	51.2	48.3	45.4	43.3	47.1
Average Total Precipitation (in.)	5.15	4.49	3.83	1.88	0.76	0.30	0.12	0.19	0.35	1.59	2.99	4.52	26.17
Average Total SnowFall (in.)	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
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 97.5% Min. Temp.: 97.3% Precipitation: 98.5% Snowfall: 98.8% Snow Depth: 98.7%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

TRANSPORTATION – EMFAC2011

CRITERIA AIR POLLUTANTS & GHGS

MENLO PARK — TRANSPORTATION SECTOR

VMT with Full trip length for external (X) trips

VMT	City of Menlo Park						
	Population	Employment	Service Population (SP)	Daily VMT*	Rate (VMT/ SP)	Adjusted Daily VMT	Annual VMT
2005	30,000	28,709	58,709	1,952,890	33.3	1,953,000	677,691,000
2008	32,000	29,400	61,400	2,042,395	33.3	2,042,000	708,574,000
2012	36,740	33,960	70,700	2,351,748	33.3	2,352,000	816,144,000
2020	39,300	35,911	75,211	2,501,810	33.3	2,502,000	868,194,000
2035	43,400	39,570	82,970	2,627,448	31.7	2,627,000	911,569,000
Baseline in 2035	36,740	33,960	70,700	2,351,748	33.3	2,352,000	816,144,000
2010 C/CAG Model	34,550	14,264	48,814	1,623,737	33.3		
2035 C/CAG Model	45,225	19,301	64,526	2,043,374	31.7		
Housing Sites VMT	NA	NA	NA	32,918	31.7		

Source: 2010 and 2035 VMT is based on data provided by TJKM using the C/CAG model provided by VTA. The VMT provided by VTA is adjusted based on the Population and Employment used in the C/CAG model compared to the population and employment estimated identified by the City.

VMT (forecasted) is approximated based on increase in population and employment (service population).

Adjusted Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Fleet Mix	City of Menlo Park						
	Passenger Vehicles	Medium + Heavy Duty Trucks	Total VMT	% Passenger Vehicles	% Medium + Heavy Duty Trucks		
2010	1,586,175	37,562	1,623,737	97.7%	2.3%		
2035	1,999,838	43,536	2,043,374	97.9%	2.1%		

Source: 2010 and 2035 fleet mix is based on data provided by TJKM using the C/CAG model provided by VTA. The fleet mix was used to adjust the default fleet mix for San Mateo County in EMFAC2011.

CRITERIA AIR POLLUTANTS

	lbs/day					
	ROG	NOx	CO	SOx	PM10	PM2.5
2005	2,806	3,532	28,860	22	246	122
2008	2,244	2,766	22,812	19	243	115
2012	1,717	2,156	17,095	21	265	119
2020	908	1,123	8,351	22	271	117
2035	634	677	5,620	23	285	123
Baseline in 2035	567	606	5,032	21	255	110
	Tons/year					
	ROG	NOx	CO	SOx	PM10	PM2.5
2005	487	613	5,007	4	43	21
2008	389	480	3,958	3	42	20
2012	298	374	2,966	4	46	21
2020	158	195	1,449	4	47	20
2035	110	117	975	4	49	21
Baseline in 2035	98	105	873	4	44	19

Daily emissions multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Source: EMFAC2011-SG

GHG EMISSIONS

	MTons/year - Business as Usual (BAU)			MTons/year - Adjusted			Percent Reduction from BAU	Percent Change from 2008
	N_2O	CO_2	CO_2e	N_2O	CO_2	CO_2e		
2005	18	271,669	277,148	18	271,669	277,148	0%	-5%
2008	14	286,193	290,485	14	286,193	290,485	0%	0%
2012	11	327,665	331,010	11	315,001	318,345	-4%	10%
2020	6	348,839	350,582	6	258,796	260,539	-26%	-10%
2035	3	365,884	366,934	3	239,042	240,092	-35%	-17%
Baseline in 2035	3	327,583	328,523	3	214,019	214,959	-35%	-26%

Source: EMFAC2011-SG

Note: MTons = metric tons; CO_2e = carbon dioxide-equivalent. Adjusted BAU Includes Pavley and the Low Carbon Fuel Standard (LCFS).

State and Federal Fuel Efficiency Improvements + Low Carbon Fuel Standard (LCFS)

1493 (AB 1493) Pavley I Fuel Efficiency Standards. In addition, the State of California has adopted the Low Carbon Fuel Standard (LCFS). In January 2012, the California Air Resources Board (CARB) adopted the Advanced Clean Car Program which implements the Pavley II Fuel Efficiency Standards and projects that by 2025, one in every seven new cars sold will be electric vehicles (PHEV or PEV). However, the Pavley II Advanced Clean Car Program is not included in the transportation emissions reductions and therefore reductions are conservative.

On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Night Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

Baseline in 2035

Based on EMFAC2011

	Emission year	Daily						
	2035	**2,352,000**				**lbs/day**		
	Percent of VMT	**Adjust % VMT**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
All Other Buses	0.11%	0.02%	0	1	0	0	0	0
LDA	58.03%	66.40%	208	222	2,351	12	164	70
LDT1	6.15%	7.03%	41	30	334	1	17	7
LDT2	17.26%	19.75%	109	88	865	5	49	21
LHD1	3.00%	3.43%	44	131	271	2	11	5
LHD2	0.42%	0.48%	4	19	30	0	2	1
MCY	0.69%	0.78%	141	52	1,038	0	2	1
MDV	11.43%	1.68%	15	11	106	1	4	2
MH	0.10%	0.01%	0	1	0	0	0	0
Motor Coach	0.11%	0.02%	0	2	1	0	0	0
OBUS	0.08%	0.01%	0	1	4	0	0	0
PTO	0.01%	0.00%	0	0	0	0	0	0
SBUS	0.02%	0.00%	0	0	0	0	0	0
T6 Ag	0.01%	0.00%	0	0	0	0	0	0
T6 CAIRP heavy	0.00%	0.00%	0	0	0	0	0	0
T6 CAIRP small	0.00%	0.00%	0	0	0	0	0	0
T6 instate construction heavy	0.05%	0.01%	0	0	0	0	0	0
T6 instate construction small	0.16%	0.02%	0	1	1	0	0	0
T6 instate heavy	0.31%	0.05%	0	3	1	0	0	0
T6 instate small	0.92%	0.14%	1	8	3	0	1	1
T6 OOS heavy	0.00%	0.00%	0	0	0	0	0	0
T6 OOS small	0.00%	0.00%	0	0	0	0	0	0
T6 public	0.04%	0.01%	0	0	0	0	0	0
T6 utility	0.01%	0.00%	0	0	0	0	0	0
T6TS	0.24%	0.04%	1	1	7	0	0	0
T7 Ag	0.00%	0.00%	0	0	0	0	0	0
T7 CAIRP	0.07%	0.01%	0	2	1	0	0	0
T7 CAIRP construction	0.01%	0.00%	0	0	0	0	0	0
T7 NNOOS	0.08%	0.01%	0	2	1	0	0	0
T7 NOOS	0.03%	0.00%	0	1	0	0	0	0
T7 other port	0.01%	0.00%	0	0	0	0	0	0
T7 POAK	0.06%	0.01%	0	1	1	0	0	0
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	0	0	0	0
T7 Single	0.04%	0.01%	0	1	0	0	0	0
T7 single construction	0.02%	0.00%	0	0	0	0	0	0
T7 SWCV	0.01%	0.00%	0	0	0	0	0	0
T7 tractor	0.14%	0.02%	0	2	1	0	0	0
T7 tractor construction	0.01%	0.00%	0	0	0	0	0	0
T7 utility	0.00%	0.00%	0	0	0	0	0	0
T7IS	0.02%	0.00%	0	1	6	0	0	0
UBUS	0.35%	0.05%	1	24	6	0	3	1
TOTAL	100%	100%	**567**	**606**	**5,032**	**21**	**255**	**110**

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

2035

Based on EMFAC2011

	Emission year	Daily						
	2035	**2,627,000**				**lbs/day**		
	Percent of VMT	**Adjust % VMT**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
All Other Buses	0.11%	0.02%	0	1	0	0	0	0
LDA	58.03%	66.40%	233	248	2,626	13	183	79
LDT1	6.15%	7.03%	46	34	373	2	19	8
LDT2	17.26%	19.75%	121	98	966	5	54	23
LHD1	3.00%	3.43%	49	146	303	2	12	6
LHD2	0.42%	0.48%	4	21	34	0	2	1
MCY	0.69%	0.78%	158	59	1,159	0	2	1
MDV	11.43%	1.68%	16	12	118	1	5	2
MH	0.10%	0.01%	0	1	0	0	0	0
Motor Coach	0.11%	0.02%	0	2	1	0	0	0
OBUS	0.08%	0.01%	0	1	4	0	0	0
PTO	0.01%	0.00%	0	0	0	0	0	0
SBUS	0.02%	0.00%	0	1	1	0	0	0
T6 Ag	0.01%	0.00%	0	0	0	0	0	0
T6 CAIRP heavy	0.00%	0.00%	0	0	0	0	0	0
T6 CAIRP small	0.00%	0.00%	0	0	0	0	0	0
T6 instate construction heavy	0.05%	0.01%	0	1	0	0	0	0
T6 instate construction small	0.16%	0.02%	0	1	1	0	0	0
T6 instate heavy	0.31%	0.05%	0	3	1	0	0	0
T6 instate small	0.92%	0.14%	1	8	3	0	1	1
T6 OOS heavy	0.00%	0.00%	0	0	0	0	0	0
T6 OOS small	0.00%	0.00%	0	0	0	0	0	0
T6 public	0.04%	0.01%	0	0	0	0	0	0
T6 utility	0.01%	0.00%	0	0	0	0	0	0
T6TS	0.24%	0.04%	1	1	8	0	0	0
T7 Ag	0.00%	0.00%	0	0	0	0	0	0
T7 CAIRP	0.07%	0.01%	0	2	1	0	0	0
T7 CAIRP construction	0.01%	0.00%	0	0	0	0	0	0
T7 NNOOS	0.08%	0.01%	0	2	1	0	0	0
T7 NOOS	0.03%	0.00%	0	1	0	0	0	0
T7 other port	0.01%	0.00%	0	0	0	0	0	0
T7 POAK	0.06%	0.01%	0	2	1	0	0	0
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	0	0	0	0
T7 Single	0.04%	0.01%	0	1	0	0	0	0
T7 single construction	0.02%	0.00%	0	0	0	0	0	0
T7 SWCV	0.01%	0.00%	0	0	0	0	0	0
T7 tractor	0.14%	0.02%	0	3	1	0	0	0
T7 tractor construction	0.01%	0.00%	0	0	0	0	0	0
T7 utility	0.00%	0.00%	0	0	0	0	0	0
T7IS	0.02%	0.00%	0	1	6	0	0	0
UBUS	0.35%	0.05%	1	27	7	0	3	1
TOTAL	100%	100.0%	**634**	**677**	**5,620**	**23**	**285**	**123**

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

Year 2020

Based on EMFAC2011

	Emission year	Daily						
	2020	**2,502,000**				**lbs/day**		
	Percent of VMT	**Adjust % VMT**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
All Other Buses	0.09%	0.02%	0	3	0	0	0	0
LDA	57.97%	65.91%	350	335	3,612	13	171	72
LDT1	6.26%	7.12%	110	100	1,015	2	19	8
LDT2	17.65%	20.07%	162	180	1,569	5	52	22
LHD1	2.95%	3.36%	93	273	631	2	13	6
LHD2	0.42%	0.47%	9	46	56	0	2	1
MCY	0.66%	0.76%	149	54	1,138	0	2	1
MDV	11.35%	1.86%	27	33	259	1	5	2
MH	0.10%	0.02%	0	1	2	0	0	0
Motor Coach	0.09%	0.02%	0	4	1	0	0	0
OBUS	0.08%	0.01%	1	1	8	0	0	0
PTO	0.01%	0.00%	0	0	0	0	0	0
SBUS	0.02%	0.00%	0	1	2	0	0	0
T6 Ag	0.01%	0.00%	0	0	0	0	0	0
T6 CAIRP heavy	0.00%	0.00%	0	0	0	0	0	0
T6 CAIRP small	0.00%	0.00%	0	0	0	0	0	0
T6 instate construction heavy	0.03%	0.01%	0	1	0	0	0	0
T6 instate construction small	0.09%	0.02%	0	1	0	0	0	0
T6 instate heavy	0.30%	0.05%	0	9	1	0	1	0
T6 instate small	0.84%	0.14%	1	12	4	0	1	1
T6 OOS heavy	0.00%	0.00%	0	0	0	0	0	0
T6 OOS small	0.00%	0.00%	0	0	0	0	0	0
T6 public	0.04%	0.01%	0	1	0	0	0	0
T6 utility	0.01%	0.00%	0	0	0	0	0	0
T6TS	0.24%	0.04%	2	4	23	0	0	0
T7 Ag	0.00%	0.00%	0	0	0	0	0	0
T7 CAIRP	0.06%	0.01%	0	2	1	0	0	0
T7 CAIRP construction	0.00%	0.00%	0	0	0	0	0	0
T7 NNOOS	0.07%	0.01%	0	2	1	0	0	0
T7 NOOS	0.02%	0.00%	0	1	0	0	0	0
T7 other port	0.01%	0.00%	0	0	0	0	0	0
T7 POAK	0.03%	0.01%	0	2	1	0	0	0
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	0	0	0	0
T7 Single	0.04%	0.01%	0	2	0	0	0	0
T7 single construction	0.01%	0.00%	0	0	0	0	0	0
T7 SWCV	0.01%	0.00%	0	1	0	0	0	0
T7 tractor	0.12%	0.02%	0	5	1	0	0	0
T7 tractor construction	0.01%	0.00%	0	0	0	0	0	0
T7 utility	0.00%	0.00%	0	0	0	0	0	0
T7IS	0.02%	0.00%	0	1	10	0	0	0
UBUS	0.37%	0.06%	3	46	13	0	3	2
TOTAL	100%	100%	**908**	**1,123**	**8,351**	**22**	**271**	**117**

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

Year 2012

Based on EMFAC2011

	Emission year	Daily						
	2012	2,352,000				lbs/day		
	Percent of VMT	Adjust % VMT	ROG	NOx	CO	SOx	PM10	PM2.5
All Other Buses	0.08%	0.01%	0	6	1	0	0	0
LDA	57.45%	65.60%	882	773	8,653	12	164	71
LDT1	6.28%	7.17%	198	194	2,100	2	19	9
LDT2	17.72%	20.23%	285	420	3,284	5	50	21
LHD1	3.05%	3.48%	126	403	1,043	2	13	7
LHD2	0.43%	0.49%	16	75	124	0	3	1
MCY	0.63%	0.71%	163	51	1,366	0	2	1
MDV	11.88%	1.90%	32	55	397	1	5	2
MH	0.10%	0.02%	0	2	10	0	0	0
Motor Coach	0.08%	0.01%	0	9	2	0	0	0
OBUS	0.09%	0.01%	1	2	13	0	0	0
PTO	0.01%	0.00%	0	1	0	0	0	0
SBUS	0.02%	0.00%	0	2	3	0	0	0
T6 Ag	0.01%	0.00%	0	1	0	0	0	0
T6 CAIRP heavy	0.00%	0.00%	0	0	0	0	0	0
T6 CAIRP small	0.00%	0.00%	0	0	0	0	0	0
T6 instate construction heavy	0.04%	0.01%	0	3	1	0	0	0
T6 instate construction small	0.12%	0.02%	0	7	1	0	0	0
T6 instate heavy	0.27%	0.04%	1	20	4	0	1	1
T6 instate small	0.75%	0.12%	2	41	7	0	2	2
T6 OOS heavy	0.00%	0.00%	0	0	0	0	0	0
T6 OOS small	0.00%	0.00%	0	0	0	0	0	0
T6 public	0.03%	0.00%	0	2	0	0	0	0
T6 utility	0.01%	0.00%	0	0	0	0	0	0
T6TS	0.22%	0.04%	4	8	48	0	0	0
T7 Ag	0.00%	0.00%	0	1	0	0	0	0
T7 CAIRP	0.05%	0.01%	0	4	1	0	0	0
T7 CAIRP construction	0.01%	0.00%	0	0	0	0	0	0
T7 NNOOS	0.06%	0.01%	0	3	1	0	0	0
T7 NOOS	0.02%	0.00%	0	2	0	0	0	0
T7 other port	0.01%	0.00%	0	1	0	0	0	0
T7 POAK	0.02%	0.00%	0	3	0	0	0	0
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	0	0	0	0
T7 Single	0.03%	0.00%	0	3	1	0	0	0
T7 single construction	0.01%	0.00%	0	1	0	0	0	0
T7 SWCV	0.01%	0.00%	0	1	0	0	0	0
T7 tractor	0.09%	0.01%	1	10	3	0	0	0
T7 tractor construction	0.01%	0.00%	0	1	0	0	0	0
T7 utility	0.00%	0.00%	0	0	0	0	0	0
T7IS	0.03%	0.00%	1	2	15	0	0	0
UBUS	0.37%	0.06%	3	47	16	0	3	2
TOTAL	100%	100%	**1,717**	**2,156**	**17,095**	**21**	**265**	**119**

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

2008

Based on EMFAC2011

	Emission year	Daily						
	2008	**2,042,000**				**lbs/day**		
	Percent of VMT	**Adjust % VMT**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
All Other Buses	0.08%	0.01%	0	6	1	0	0	0
LDA	55.68%	64.51%	1,292	1,153	12,543	10	148	68
LDT1	6.24%	7.23%	262	263	2,893	1	18	9
LDT2	18.08%	20.94%	328	550	3,990	4	46	21
LHD1	3.29%	3.81%	128	428	1,206	2	13	7
LHD2	0.46%	0.53%	19	84	174	0	3	2
MCY	0.57%	0.66%	171	45	1,487	0	1	1
MDV	13.04%	1.92%	27	56	383	1	4	2
MH	0.10%	0.01%	1	2	16	0	0	0
Motor Coach	0.08%	0.01%	0	9	2	0	0	0
OBUS	0.10%	0.01%	1	2	13	0	0	0
PTO	0.01%	0.00%	0	1	0	0	0	0
SBUS	0.03%	0.00%	0	2	3	0	0	0
T6 Ag	0.01%	0.00%	0	1	0	0	0	0
T6 CAIRP heavy	0.00%	0.00%	0	0	0	0	0	0
T6 CAIRP small	0.00%	0.00%	0	0	0	0	0	0
T6 instate construction heavy	0.05%	0.01%	0	3	1	0	0	0
T6 instate construction small	0.14%	0.02%	0	9	1	0	0	0
T6 instate heavy	0.27%	0.04%	1	19	3	0	1	1
T6 instate small	0.81%	0.12%	2	49	7	0	2	2
T6 OOS heavy	0.00%	0.00%	0	0	0	0	0	0
T6 OOS small	0.00%	0.00%	0	0	0	0	0	0
T6 public	0.03%	0.00%	0	2	0	0	0	0
T6 utility	0.01%	0.00%	0	0	0	0	0	0
T6TS	0.21%	0.03%	5	8	52	0	0	0
T7 Ag	0.00%	0.00%	0	1	0	0	0	0
T7 CAIRP	0.05%	0.01%	0	5	1	0	0	0
T7 CAIRP construction	0.01%	0.00%	0	1	0	0	0	0
T7 NNOOS	0.05%	0.01%	0	4	1	0	0	0
T7 NOOS	0.02%	0.00%	0	2	0	0	0	0
T7 other port	0.01%	0.00%	0	1	0	0	0	0
T7 POAK	0.02%	0.00%	0	3	1	0	0	0
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	0	0	0	0
T7 Single	0.03%	0.00%	0	3	1	0	0	0
T7 single construction	0.02%	0.00%	0	2	0	0	0	0
T7 SWCV	0.01%	0.00%	0	1	0	0	0	0
T7 tractor	0.09%	0.01%	1	10	2	0	0	0
T7 tractor construction	0.01%	0.00%	0	1	0	0	0	0
T7 utility	0.00%	0.00%	0	0	0	0	0	0
T7IS	0.04%	0.01%	1	2	15	0	0	0
UBUS	0.37%	0.06%	2	39	14	0	3	1
TOTAL	100%	100%	**2,244**	**2,766**	**22,812**	**19**	**243**	**115**

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

2005

Based on EMFAC2011

	Emission year	Daily						
	2035	**1,953,000**				**lbs/day**		
	Percent of VMT	**Adjust % VMT**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
All Other Buses	0.09%	0.01%	1	7	1	0	0	0
LDA	55.03%	64.22%	1,662	1,565	16,198	10	149	72
LDT1	6.16%	7.19%	319	344	3,674	1	18	9
LDT2	18.25%	21.30%	409	731	5,042	4	47	21
LHD1	3.29%	3.84%	157	489	1,609	3	14	8
LHD2	0.45%	0.52%	26	88	268	1	3	2
MCY	0.52%	0.61%	183	40	1,474	0	1	1
MDV	13.70%	1.95%	31	69	444	0	4	2
MH	0.10%	0.01%	1	2	21	0	0	0
Motor Coach	0.09%	0.01%	1	12	2	0	0	0
OBUS	0.10%	0.01%	1	3	15	0	0	0
PTO	0.01%	0.00%	0	1	0	0	0	0
SBUS	0.03%	0.00%	0	2	4	0	0	0
T6 Ag	0.01%	0.00%	0	1	0	0	0	0
T6 CAIRP heavy	0.00%	0.00%	0	0	0	0	0	0
T6 CAIRP small	0.00%	0.00%	0	0	0	0	0	0
T6 instate construction heavy	0.04%	0.01%	0	3	1	0	0	0
T6 instate construction small	0.10%	0.01%	0	7	1	0	0	0
T6 instate heavy	0.27%	0.04%	1	21	4	0	1	1
T6 instate small	0.78%	0.11%	3	56	8	1	3	2
T6 OOS heavy	0.00%	0.00%	0	0	0	0	0	0
T6 OOS small	0.00%	0.00%	0	0	0	0	0	0
T6 public	0.03%	0.00%	0	3	0	0	0	0
T6 utility	0.01%	0.00%	0	0	0	0	0	0
T6TS	0.21%	0.03%	5	8	53	0	0	0
T7 Ag	0.01%	0.00%	0	1	0	0	0	0
T7 CAIRP	0.05%	0.01%	0	7	1	0	0	0
T7 CAIRP construction	0.00%	0.00%	0	1	0	0	0	0
T7 NNOOS	0.06%	0.01%	0	6	1	0	0	0
T7 NOOS	0.02%	0.00%	0	2	1	0	0	0
T7 other port	0.01%	0.00%	0	1	0	0	0	0
T7 POAK	0.02%	0.00%	0	3	1	0	0	0
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	0	0	0	0
T7 Single	0.03%	0.00%	0	4	1	0	0	0
T7 single construction	0.01%	0.00%	0	1	0	0	0	0
T7 SWCV	0.01%	0.00%	0	1	0	0	0	0
T7 tractor	0.09%	0.01%	1	11	3	0	0	0
T7 tractor construction	0.01%	0.00%	0	1	0	0	0	0
T7 utility	0.00%	0.00%	0	0	0	0	0	0
T7IS	0.04%	0.01%	1	2	15	0	0	0
UBUS	0.37%	0.05%	2	39	14	0	3	1
TOTAL	100%	100%	**2,806**	**3,532**	**28,860**	**22**	**246**	**122**

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

Baseline in 2035 **(MTons/Year)**

Based on EMFAC2011

	Emission year	Annual VMT			GWP	GWP			
	2035	**816,144,000**			**310**	**1**	**MTons**		**MTons**
	Percent of VMT	**Adjust % VMT**	**NOx**	**N2O**	**CO2**	**CO2e**	**CO2w/Pavley + LCF**	**CO2e w/ Pavley + LCFS**
All Other Buses	0.11%	0.02%	0	0	153	155	138	140
LDA	58.03%	66.40%	35	1	187,238	187,582	111,818	112,162
LDT1	6.15%	7.03%	5	0	22,951	22,998	14,427	14,474
LDT2	17.26%	19.75%	14	0	75,466	75,602	51,665	51,800
LHD1	3.00%	3.43%	21	1	24,611	24,814	22,150	22,353
LHD2	0.42%	0.48%	3	0	2,987	3,016	2,688	2,718
MCY	0.69%	0.78%	8	0	1,117	1,199	1,006	1,087
MDV	11.43%	1.68%	2	0	8,242	8,259	5,792	5,809
MH	0.10%	0.01%	0	0	87	88	78	79
Motor Coach	0.11%	0.02%	0	0	238	241	214	217
OBUS	0.08%	0.01%	0	0	70	70	63	63
PTO	0.01%	0.00%	0	0	27	28	25	25
SBUS	0.02%	0.00%	0	0	24	25	22	22
T6 Ag	0.01%	0.00%	0	0	12	12	11	11
T6 CAIRP heavy	0.00%	0.00%	0	0	1	1	1	1
T6 CAIRP small	0.00%	0.00%	0	0	4	4	4	4
T6 instate construction heavy	0.05%	0.01%	0	0	75	76	68	68
T6 instate construction small	0.16%	0.02%	0	0	221	223	199	201
T6 instate heavy	0.31%	0.05%	0	0	447	452	402	407
T6 instate small	0.92%	0.14%	1	0	1,313	1,324	1,181	1,193
T6 OOS heavy	0.00%	0.00%	0	0	1	1	1	1
T6 OOS small	0.00%	0.00%	0	0	2	2	2	2
T6 public	0.04%	0.01%	0	0	64	64	57	58
T6 utility	0.01%	0.00%	0	0	10	10	9	9
T6TS	0.24%	0.04%	0	0	204	205	183	185
T7 Ag	0.00%	0.00%	0	0	8	8	7	7
T7 CAIRP	0.07%	0.01%	0	0	164	167	148	150
T7 CAIRP construction	0.01%	0.00%	0	0	14	14	13	13
T7 NNOOS	0.08%	0.01%	0	0	186	188	167	170
T7 NOOS	0.03%	0.00%	0	0	61	62	55	56
T7 other port	0.01%	0.00%	0	0	15	15	13	14
T7 POAK	0.06%	0.01%	0	0	133	135	120	122
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	11	11	10	10
T7 Single	0.04%	0.01%	0	0	97	98	87	88
T7 single construction	0.02%	0.00%	0	0	36	36	32	33
T7 SWCV	0.01%	0.00%	0	0	26	27	24	24
T7 tractor	0.14%	0.02%	0	0	285	288	256	260
T7 tractor construction	0.01%	0.00%	0	0	27	27	24	24
T7 utility	0.00%	0.00%	0	0	2	2	1	2
T7IS	0.02%	0.00%	0	0	13	14	12	13
UBUS	0.35%	0.05%	4	0	941	979	847	885
TOTAL	100%	100%	**95**	**3**	**327,583**	**328,523**	**214,019**	**214,959**

N2O emissions were calculated using an off-model adjustment provided by CARB in AB 32 Technical Appendices. The off-model adjustment uses a linear regression correlating N2O with NOx. (N2O = 0.0167 + 0.0318 x NOx)

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

2035 **(MTons/Year)**

Based on EMFAC2011

	Emission year	Annual VMT			GWP	GWP			
	2035	**911,569,000**			**310**	**1**	**MTons**		**MTons**
	Percent of VMT	**Adjust % VMT**	**NOx**	**N2O**	**CO2**	**CO2e**	**CO2w/Pavley + LCF**	**CO2e w/ Pavley + LCFS**
All Other Buses	0.11%	0.02%	0	0	171	173	154	156
LDA	58.03%	66.40%	39	1	209,130	209,514	124,892	125,277
LDT1	6.15%	7.03%	5	0	25,635	25,687	16,114	16,167
LDT2	17.26%	19.75%	15	0	84,290	84,442	57,705	57,857
LHD1	3.00%	3.43%	23	1	27,488	27,715	24,739	24,966
LHD2	0.42%	0.48%	3	0	3,336	3,369	3,002	3,035
MCY	0.69%	0.78%	9	0	1,248	1,339	1,123	1,214
MDV	11.43%	1.68%	2	0	9,205	9,224	6,469	6,488
MH	0.10%	0.01%	0	0	97	98	87	88
Motor Coach	0.11%	0.02%	0	0	266	269	239	243
OBUS	0.08%	0.01%	0	0	78	79	70	71
PTO	0.01%	0.00%	0	0	31	31	28	28
SBUS	0.02%	0.00%	0	0	27	28	24	25
Source: 2010 and 2035 VMT is b	0.01%	0.00%	0	0	14	14	12	13
VMT (forecasted) is approximate	0.00%	0.00%	0	0	1	1	1	1
Adjusted Daily vehicles miles tra	0.00%	0.00%	0	0	5	5	4	4
T6 instate construction heavy	0.05%	0.01%	0	0	84	85	75	76
T6 instate construction small	0.16%	0.02%	0	0	247	249	222	224
T6 instate heavy	0.31%	0.05%	1	0	499	504	449	454
T6 instate small	0.92%	0.14%	1	0	1,466	1,479	1,320	1,333
T6 OOS heavy	0.00%	0.00%	0	0	1	1	1	1
T6 OOS small	0.00%	0.00%	0	0	3	3	2	2
T6 public	0.04%	0.01%	0	0	71	72	64	65
T6 utility	0.01%	0.00%	0	0	11	11	10	10
T6TS	0.24%	0.04%	0	0	228	230	205	207
T7 Ag	0.00%	0.00%	0	0	8	9	8	8
T7 CAIRP	0.07%	0.01%	0	0	183	186	165	168
T7 CAIRP construction	0.01%	0.00%	0	0	16	16	14	15
T7 NNOOS	0.08%	0.01%	0	0	208	210	187	190
T7 NOOS	0.03%	0.00%	0	0	68	69	61	62
T7 other port	0.01%	0.00%	0	0	17	17	15	15
T7 POAK	0.06%	0.01%	0	0	149	151	134	136
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	12	12	11	11
T7 Single	0.04%	0.01%	0	0	108	109	97	98
T7 single construction	0.02%	0.00%	0	0	40	40	36	36
T7 SWCV	0.01%	0.00%	0	0	29	30	26	27
T7 tractor	0.14%	0.02%	0	0	318	322	286	290
T7 tractor construction	0.01%	0.00%	0	0	30	30	27	27
T7 utility	0.00%	0.00%	0	0	2	2	2	2
T7IS	0.02%	0.00%	0	0	15	16	13	15
UBUS	0.35%	0.05%	4	0	1,051	1,093	946	988
TOTAL	100%	100%	**107**	**3**	**365,884**	**366,934**	**239,042**	**240,092**

N2O emissions were calculated using an off-model adjustment provided by CARB in AB 32 Technical Appendices. The off-model adjustment uses a linear regression correlating N2O with NOx. (N2O = 0.0167 + 0.0318 x NOx)

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

Year 2020 (MTons/Year)

Based on EMFAC2011

	Emission year	Annual VMT		GWP	GWP			
	2020	**868,194,000**		**310**	**1**	**MTons**		**MTons**
	Percent of VMT	**Adjust % VMT**	**NOx**	**N2O**	**CO2**	**CO2e**	**CO2w/Pavley + LCF**	**CO2e w/ Pavley + LCFS**
All Other Buses	0.09%	0.02%	0	0	157	161	141	145
LDA	57.97%	65.91%	53	2	197,658	198,177	138,152	138,672
LDT1	6.26%	7.12%	16	1	24,549	24,705	18,458	18,613
LDT2	17.65%	20.07%	28	1	81,622	81,901	62,701	62,980
LHD1	2.95%	3.36%	43	1	25,672	26,095	23,105	23,528
LHD2	0.42%	0.47%	7	0	3,144	3,216	2,830	2,901
MCY	0.66%	0.76%	9	0	1,123	1,207	1,010	1,095
MDV	11.35%	1.86%	5	0	9,658	9,708	7,668	7,719
MH	0.10%	0.02%	0	0	106	108	95	97
Motor Coach	0.09%	0.02%	1	0	244	249	219	225
OBUS	0.08%	0.01%	0	0	82	84	73	76
PTO	0.01%	0.00%	0	0	28	29	25	26
SBUS	0.02%	0.00%	0	0	34	36	31	33
T6 Ag	0.01%	0.00%	0	0	17	18	15	16
T6 CAIRP heavy	0.00%	0.00%	0	0	1	1	1	1
T6 CAIRP small	0.00%	0.00%	0	0	4	4	4	4
T6 instate construction heavy	0.03%	0.01%	0	0	59	61	53	55
T6 instate construction small	0.09%	0.02%	0	0	159	161	143	145
T6 instate heavy	0.30%	0.05%	1	0	506	520	455	469
T6 instate small	0.84%	0.14%	2	0	1,415	1,433	1,273	1,291
T6 OOS heavy	0.00%	0.00%	0	0	1	1	1	1
T6 OOS small	0.00%	0.00%	0	0	3	3	2	2
T6 public	0.04%	0.01%	0	0	63	65	57	59
T6 utility	0.01%	0.00%	0	0	10	10	9	9
T6TS	0.24%	0.04%	1	0	244	250	220	226
T7 Ag	0.00%	0.00%	0	0	10	11	9	10
T7 CAIRP	0.06%	0.01%	0	0	165	168	149	152
T7 CAIRP construction	0.00%	0.00%	0	0	10	11	9	10
T7 NNOOS	0.07%	0.01%	0	0	188	190	169	171
T7 NOOS	0.02%	0.00%	0	0	61	62	55	56
T7 other port	0.01%	0.00%	0	0	16	17	14	15
T7 POAK	0.03%	0.01%	0	0	87	91	78	82
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	11	11	10	10
T7 Single	0.04%	0.01%	0	0	98	100	88	91
T7 single construction	0.01%	0.00%	0	0	26	27	24	24
T7 SWCV	0.01%	0.00%	0	0	26	27	24	25
T7 tractor	0.12%	0.02%	1	0	289	296	260	267
T7 tractor construction	0.01%	0.00%	0	0	20	20	18	18
T7 utility	0.00%	0.00%	0	0	2	2	2	2
T7IS	0.02%	0.00%	0	0	21	23	19	21
UBUS	0.37%	0.06%	7	0	1,251	1,322	1,126	1,197
TOTAL		100%	**177**	**6**	**348,839**	**350,582**	**258,796**	**260,539**

N2O emissions were calculated using an off-model adjustment provided by CARB in AB 32 Technical Appendices. The off-model adjustment uses a linear regression correlating N2O with NOx. (N2O = 0.0167 + 0.0318 x NOx)

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

Year 2012 MTons/Year)

Based on EMFAC2011

	Emission year	Annual VMT		GWP	GWP			
	2012	**816,144,000**		**310**	**1**	**MTons**		**MTons**
	Percent of VMT	**Adjust % VMT**	**NOx**	**N2O**	**CO2**	**CO2e**	**CO2w/Pavley + LCF**	**CO2e w/ Pavley + LCFS**
All Other Buses	0.08%	0.01%	1	0	127	136	126	136
LDA	57.45%	65.60%	122	4	184,326	185,524	175,178	176,377
LDT1	6.28%	7.17%	31	1	23,128	23,429	22,328	22,629
LDT2	17.72%	20.23%	66	2	77,370	78,022	75,037	75,690
LHD1	3.05%	3.48%	63	2	25,047	25,673	24,922	25,548
LHD2	0.43%	0.49%	12	0	3,040	3,157	3,025	3,141
MCY	0.63%	0.71%	8	0	890	970	886	965
MDV	11.88%	1.90%	9	0	9,202	9,287	8,987	9,071
MH	0.10%	0.02%	0	0	97	100	97	100
Motor Coach	0.08%	0.01%	1	0	193	206	192	205
OBUS	0.09%	0.01%	0	0	84	87	83	87
PTO	0.01%	0.00%	0	0	20	22	20	22
SBUS	0.02%	0.00%	0	0	34	36	33	36
T6 Ag	0.01%	0.00%	0	0	16	18	16	18
T6 CAIRP heavy	0.00%	0.00%	0	0	1	1	1	1
T6 CAIRP small	0.00%	0.00%	0	0	4	4	4	4
T6 instate construction heavy	0.04%	0.01%	1	0	68	74	68	73
T6 instate construction small	0.12%	0.02%	1	0	187	198	187	197
T6 instate heavy	0.27%	0.04%	3	0	425	456	423	454
T6 instate small	0.75%	0.12%	6	0	1,183	1,246	1,177	1,240
T6 OOS heavy	0.00%	0.00%	0	0	1	1	1	1
T6 OOS small	0.00%	0.00%	0	0	2	2	2	2
T6 public	0.03%	0.00%	0	0	49	53	49	52
T6 utility	0.01%	0.00%	0	0	8	9	8	9
T6TS	0.22%	0.04%	1	0	207	219	206	218
T7 Ag	0.00%	0.00%	0	0	10	11	10	11
T7 CAIRP	0.05%	0.01%	1	0	117	124	117	123
T7 CAIRP construction	0.01%	0.00%	0	0	12	13	12	13
T7 NNOOS	0.06%	0.01%	0	0	134	139	133	138
T7 NOOS	0.02%	0.00%	0	0	43	46	43	45
T7 other port	0.01%	0.00%	0	0	13	14	13	14
T7 POAK	0.02%	0.00%	1	0	51	56	51	56
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	8	9	8	9
T7 Single	0.03%	0.00%	1	0	70	75	69	75
T7 single construction	0.01%	0.00%	0	0	30	32	30	32
T7 SWCV	0.01%	0.00%	0	0	21	22	21	22
T7 tractor	0.09%	0.01%	2	0	208	223	207	222
T7 tractor construction	0.01%	0.00%	0	0	23	24	22	24
T7 utility	0.00%	0.00%	0	0	1	1	1	1
T7IS	0.03%	0.00%	0	0	24	27	24	27
UBUS	0.37%	0.06%	7	0	1,190	1,264	1,184	1,258
TOTAL		100%	**339**	**11**	**327,665**	**331,010**	**315,001**	**318,345**

N2O emissions were calculated using an off-model adjustment provided by CARB in AB 32 Technical Appendices. The off-model adjustment uses a linear regression correlating N2O with NOx. (N2O = 0.0167 + 0.0318 x NOx)

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

Year 2008 MTons/Year)

Based on EMFAC2011

	Emission year	Annual VMT		GWP	GWP			
	2008	**708,574,000**		**310**	**1**	**MTons**		**MTons**
	Percent of VMT	**Adjust % VMT**	**NOx**	**N2O**	**CO2**	**CO2e**	**CO2w/Pavley + LCF**	**CO2e w/ Pavley + LCFS**
All Other Buses	0.08%	0.01%	1	0	102	111	102	111
LDA	55.68%	64.51%	181	6	157,346	159,135	157,346	159,135
LDT1	6.24%	7.23%	41	1	20,213	20,621	20,213	20,621
LDT2	18.08%	20.94%	87	3	69,579	70,432	69,579	70,432
LHD1	3.29%	3.81%	67	2	23,734	24,398	23,734	24,398
LHD2	0.46%	0.53%	13	0	2,849	2,979	2,849	2,979
MCY	0.57%	0.66%	7	0	605	675	605	675
MDV	13.04%	1.92%	9	0	8,034	8,120	8,034	8,120
MH	0.10%	0.01%	0	0	76	79	76	79
Motor Coach	0.08%	0.01%	1	0	154	168	154	168
OBUS	0.10%	0.01%	0	0	73	77	73	77
PTO	0.01%	0.00%	0	0	16	17	16	17
SBUS	0.03%	0.00%	0	0	29	31	29	31
T6 Ag	0.01%	0.00%	0	0	15	16	15	16
T6 CAIRP heavy	0.00%	0.00%	0	0	1	1	1	1
T6 CAIRP small	0.00%	0.00%	0	0	3	3	3	3
T6 instate construction heavy	0.05%	0.01%	1	0	60	65	60	65
T6 instate construction small	0.14%	0.02%	1	0	178	191	178	191
T6 instate heavy	0.27%	0.04%	3	0	343	372	343	372
T6 instate small	0.81%	0.12%	8	0	1,017	1,092	1,017	1,092
T6 OOS heavy	0.00%	0.00%	0	0	0	1	0	1
T6 OOS small	0.00%	0.00%	0	0	2	2	2	2
T6 public	0.03%	0.00%	0	0	40	44	40	44
T6 utility	0.01%	0.00%	0	0	7	7	7	7
T6TS	0.21%	0.03%	1	0	153	166	153	166
T7 Ag	0.00%	0.00%	0	0	9	9	9	9
T7 CAIRP	0.05%	0.01%	1	0	91	98	91	98
T7 CAIRP construction	0.01%	0.00%	0	0	11	12	11	12
T7 NNOOS	0.05%	0.01%	1	0	103	110	103	110
T7 NOOS	0.02%	0.00%	0	0	33	36	33	36
T7 other port	0.01%	0.00%	0	0	10	11	10	11
T7 POAK	0.02%	0.00%	0	0	36	40	36	40
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	7	7	7	7
T7 Single	0.03%	0.00%	0	0	55	59	55	59
T7 single construction	0.02%	0.00%	0	0	28	31	28	31
T7 SWCV	0.01%	0.00%	0	0	16	18	16	18
T7 tractor	0.09%	0.01%	2	0	163	179	163	179
T7 tractor construction	0.01%	0.00%	0	0	21	23	21	23
T7 utility	0.00%	0.00%	0	0	1	1	1	1
T7IS	0.04%	0.01%	0	0	22	26	22	26
UBUS	0.37%	0.06%	6	0	959	1,021	959	1,021
TOTAL		100%	**435**	**14**	**286,193**	**290,485**	**286,193**	**290,485**

N2O emissions were calculated using an off-model adjustment provided by CARB in AB 32 Technical Appendices. The off-model adjustment uses a linear regression correlating N2O with NOx. (N2O = 0.0167 + 0.0318 x NOx)

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

2005 **(MTons/Year)**

Based on EMFAC2011

	Emission year	Annual VMT		GWP	GWP			
	2035	**677,691,000**		**310**	**1**	**MTons**		**MTons**
	Percent of VMT	**Adjust % VMT**	**NOx**	**N2O**	**CO2**	**CO2e**	**CO2w/Pavley + LCF**	**CO2e w/ Pavley + LCFS**
All Other Buses	0.09%	0.01%	1	0	106	118	106	118
LDA	55.03%	64.22%	246	8	148,520	150,949	148,520	150,949
LDT1	6.16%	7.19%	54	2	19,004	19,538	19,004	19,538
LDT2	18.25%	21.30%	115	4	67,083	68,217	67,083	68,217
LHD1	3.29%	3.84%	77	2	22,619	23,378	22,619	23,378
LHD2	0.45%	0.52%	14	0	2,813	2,950	2,813	2,950
MCY	0.52%	0.61%	6	0	494	556	494	556
MDV	13.70%	1.95%	11	0	7,627	7,734	7,627	7,734
MH	0.10%	0.01%	0	0	68	71	68	71
Motor Coach	0.09%	0.01%	2	0	163	181	163	181
OBUS	0.10%	0.01%	0	0	67	71	67	71
PTO	0.01%	0.00%	0	0	15	17	15	17
SBUS	0.03%	0.00%	0	0	31	34	31	34
T6 Ag	0.01%	0.00%	0	0	16	17	16	17
T6 CAIRP heavy	0.00%	0.00%	0	0	1	1	1	1
T6 CAIRP small	0.00%	0.00%	0	0	3	3	3	3
T6 instate construction heavy	0.04%	0.01%	0	0	41	46	41	46
T6 instate construction small	0.10%	0.01%	1	0	116	127	116	127
T6 instate heavy	0.27%	0.04%	3	0	321	354	321	354
T6 instate small	0.78%	0.11%	9	0	899	987	899	987
T6 OOS heavy	0.00%	0.00%	0	0	0	1	0	1
T6 OOS small	0.00%	0.00%	0	0	2	2	2	2
T6 public	0.03%	0.00%	0	0	40	44	40	44
T6 utility	0.01%	0.00%	0	0	6	7	6	7
T6TS	0.21%	0.03%	1	0	143	155	143	155
T7 Ag	0.01%	0.00%	0	0	9	11	9	11
T7 CAIRP	0.05%	0.01%	1	0	90	100	90	100
T7 CAIRP construction	0.00%	0.00%	0	0	7	8	7	8
T7 NNOOS	0.06%	0.01%	1	0	102	111	102	111
T7 NOOS	0.02%	0.00%	0	0	33	37	33	37
T7 other port	0.01%	0.00%	0	0	10	12	10	12
T7 POAK	0.02%	0.00%	0	0	33	37	33	37
T7 POLA	0.00%	0.00%	0	0	0	0	0	0
T7 public	0.00%	0.00%	0	0	7	8	7	8
T7 Single	0.03%	0.00%	1	0	53	58	53	58
T7 single construction	0.01%	0.00%	0	0	18	20	18	20
T7 SWCV	0.01%	0.00%	0	0	17	19	17	19
T7 tractor	0.09%	0.01%	2	0	156	173	156	173
T7 tractor construction	0.01%	0.00%	0	0	13	15	13	15
T7 utility	0.00%	0.00%	0	0	1	1	1	1
T7IS	0.04%	0.01%	0	0	23	26	23	26
UBUS	0.37%	0.05%	6	0	895	955	895	955
TOTAL	100%	100%	**556**	**18**	**271,669**	**277,148**	**271,669**	**277,148**

N2O emissions were calculated using an off-model adjustment provided by CARB in AB 32 Technical Appendices. The off-model adjustment uses a linear regression correlating N2O with NOx. (N2O = 0.0167 + 0.0318 x NOx)

Daily vehicles miles traveled (VMT) multiplied by 347 days/year to account for reduced traffic on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology within the Climate Change Scoping Plan Measure Documentation Supplement.

Based on the emission factors for San Mateo - San Francisco Bay Area Air Basin

San Mateo 2035 Annual				Tons/Day							
Veh & Tech	Pop	VMT	Percent of VMT	ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	462	27,057	0%	4.104E-03	4.094E-02	1.538E-02	3.365E-04	5.631E-03	3.030E-03	3.527E+01	3.174E+01
LDA - TOT	404,005	14,586,363	58%	9.735E-01	1.036E+00	1.098E+01	5.563E-02	7.661E-01	3.286E-01	5.556E+03	3.318E+03
LDT1 - TOT	39,894	1,545,248	6%	1.929E-01	1.420E-01	1.561E+00	6.823E-03	8.088E-02	3.455E-02	6.810E+02	4.281E+02
LDT2 - TOT	109,003	4,338,647	17%	5.078E-01	4.087E-01	4.038E+00	2.242E-02	2.272E-01	9.714E-02	2.239E+03	1.533E+03
LHD1 - TOT	18,140	752,903	3%	2.052E-01	6.106E-01	1.267E+00	7.262E-03	5.181E-02	2.370E-02	7.302E+02	6.572E+02
LHD2 - TOT	2,543	105,150	0%	1.851E-02	8.908E-02	1.416E-01	8.733E-04	9.809E-03	4.695E-03	8.862E+01	7.976E+01
MCY - TOT	16,478	172,389	1%	6.587E-01	2.447E-01	4.848E+00	4.257E-04	8.575E-03	3.435E-03	3.316E+01	2.984E+01
MDV - TOT	75,458	2,872,536	11%	5.286E-01	3.971E-01	3.831E+00	1.902E-02	1.501E-01	6.401E-02	1.899E+03	1.334E+03
MH - TOT	1,811	23,952	0.1%	1.099E-03	2.018E-02	7.635E-03	1.978E-04	1.825E-03	8.660E-04	2.002E+01	1.802E+01
Motor Coach - TOT	185	27,695	0.1%	8.667E-03	6.813E-02	4.225E-02	5.233E-04	6.367E-03	3.657E-03	5.486E+01	4.937E+01
OBUS - TOT	366	20,329	0.1%	1.427E-02	2.035E-02	1.328E-01	1.622E-04	1.013E-03	4.069E-04	1.602E+01	1.441E+01
PTO - TOT	0	2,713	0.0%	7.957E-04	6.243E-03	2.448E-03	6.040E-05	1.331E-04	1.225E-04	6.331E+00	5.698E+00
SBUS - TOT	113	4,771	0.0%	1.927E-03	1.647E-02	1.720E-02	5.412E-05	2.110E-03	9.603E-04	5.549E+00	4.994E+00
T6 Ag - TOT	61	2,165	0.0%	3.260E-04	3.226E-03	1.268E-03	2.712E-05	4.472E-04	2.393E-04	2.843E+00	2.558E+00
T6 CAIRP heavy - TOT	3	211	0.0%	2.732E-05	2.513E-04	1.027E-04	2.624E-06	4.194E-05	2.180E-05	2.750E-01	2.475E-01
T6 CAIRP small - TOT	10	731	0.0%	8.978E-05	7.997E-04	3.366E-04	9.076E-06	1.432E-04	7.360E-05	9.513E-01	8.562E-01
T6 instate construction heavy - TOT	232	13,270	0.1%	1.871E-03	1.805E-02	7.054E-03	1.651E-04	2.700E-03	1.429E-03	1.730E+01	1.557E+01
T6 instate construction small - TOT	575	39,122	0.2%	5.032E-03	4.613E-02	1.888E-02	4.857E-04	7.756E-03	4.027E-03	5.091E+01	4.582E+01
T6 instate heavy - TOT	1,380	78,988	0.3%	1.115E-02	1.076E-01	4.202E-02	9.825E-04	1.607E-02	8.510E-03	1.030E+02	9.268E+01
T6 instate small - TOT	3,419	232,397	0.9%	2.990E-02	2.741E-01	1.122E-01	2.886E-03	4.608E-02	2.392E-02	3.024E+02	2.722E+02
T6 OOS heavy - TOT	2	121	0.0%	1.566E-05	1.441E-04	5.886E-05	1.504E-06	2.404E-05	1.250E-05	1.577E-01	1.419E-01
T6 OOS small - TOT	6	419	0.0%	5.147E-05	4.585E-04	1.930E-04	5.203E-06	8.209E-05	4.220E-05	5.454E-01	4.909E-01
T6 public - TOT	581	11,005	0.0%	1.285E-03	1.288E-02	5.634E-03	1.400E-04	2.089E-03	1.048E-03	1.468E+01	1.321E+01
T6 utility - TOT	87	1,752	0.0%	1.967E-04	1.696E-03	8.625E-04	2.224E-05	3.291E-04	1.635E-04	2.331E+00	2.098E+00
T6TS - TOT	1,085	60,741	0.2%	2.587E-02	3.822E-02	2.642E-01	4.735E-04	3.022E-03	1.212E-03	4.697E+01	4.227E+01
T7 Ag - TOT	12	880	0.0%	2.849E-04	2.297E-03	1.384E-03	1.661E-05	1.635E-04	9.761E-05	1.741E+00	1.567E+00
T7 CAIRP - TOT	77	18,605	0.1%	7.243E-03	5.649E-02	3.601E-02	3.611E-04	3.539E-03	2.139E-03	3.785E+01	3.406E+01
T7 CAIRP construction - TOT	7	1,617	0.0%	6.295E-04	4.909E-03	3.129E-03	3.138E-05	3.075E-04	1.859E-04	3.289E+00	2.960E+00
T7 NNOOS - TOT	76	20,930	0.1%	7.761E-03	5.560E-02	3.902E-02	4.087E-04	3.699E-03	2.146E-03	4.284E+01	3.856E+01
T7 NOOS - TOT	28	6,776	0.0%	2.880E-03	2.183E-02	1.448E-02	1.337E-04	1.292E-03	7.823E-04	1.401E+01	1.261E+01
T7 other port - TOT	11	1,756	0.0%	6.026E-04	5.679E-03	2.851E-03	3.256E-05	3.687E-04	2.338E-04	3.413E+00	3.072E+00
T7 POAK - TOT	76	15,659	0.1%	5.650E-03	5.208E-02	2.698E-02	2.929E-04	3.292E-03	2.089E-03	3.070E+01	2.763E+01
T7 POLA - TOT	0	0	0.0%	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
T7 public - TOT	43	1,072	0.0%	5.613E-04	5.627E-03	2.970E-03	2.328E-05	1.751E-04	9.672E-05	2.440E+00	2.196E+00
T7 Single - TOT	143	11,284	0.0%	3.141E-03	2.321E-02	1.531E-02	2.122E-04	1.916E-03	1.086E-03	2.225E+01	2.002E+01
T7 single construction - TOT	53	4,182	0.0%	1.165E-03	8.612E-03	5.678E-03	7.866E-05	7.104E-04	4.025E-04	8.245E+00	7.421E+00
T7 SWCV - TOT	58	2,919	0.0%	1.087E-03	7.333E-03	5.562E-03	5.793E-05	4.767E-04	2.634E-04	6.072E+00	5.465E+00
T7 tractor - TOT	204	33,990	0.1%	9.559E-03	8.435E-02	4.502E-02	6.260E-04	6.425E-03	3.870E-03	6.562E+01	5.905E+01
T7 tractor construction - TOT	39	3,118	0.0%	1.008E-03	8.431E-03	4.866E-03	5.860E-05	5.919E-04	3.574E-04	6.142E+00	5.528E+00
T7 utility - TOT	7	168	0.0%	9.253E-05	5.274E-04	4.928E-04	3.630E-06	2.655E-05	1.435E-05	3.805E-01	3.424E-01
T7IS - TOT	35	4,615	0.0%	3.850E-03	2.869E-02	2.027E-01	3.341E-05	2.288E-04	9.135E-05	3.017E+00	2.715E+00
UBUS - TOT	549	86,970	0.3%	4.469E-02	8.803E-01	2.354E-01	2.074E-03	9.287E-02	4.834E-02	2.168E+02	1.951E+02
		25,135,218	100%								

San Mateo 2035 Annual				9.072E-01	MTons/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	462	27,057	0%		1.376E-07	1.373E-06	5.157E-07	1.128E-08	1.888E-07	1.016E-07	1.182E-03	1.064E-03
LDA - TOT	404,005	14,586,363	58%		6.055E-08	6.441E-08	6.829E-07	3.460E-09	4.765E-08	2.044E-08	3.455E-04	2.064E-04
LDT1 - TOT	39,894	1,545,248	6%		1.132E-07	8.336E-08	9.165E-07	4.006E-09	4.748E-08	2.028E-08	3.998E-04	2.513E-04
LDT2 - TOT	109,003	4,338,647	17%		1.062E-07	8.546E-08	8.444E-07	4.688E-09	4.751E-08	2.031E-08	4.682E-04	3.205E-04
LHD1 - TOT	18,140	752,903	3%		2.472E-07	7.357E-07	1.527E-06	8.751E-09	6.242E-08	2.855E-08	8.799E-04	7.919E-04
LHD2 - TOT	2,543	105,150	0%		1.597E-07	7.685E-07	1.222E-06	7.535E-09	8.462E-08	4.051E-08	7.646E-04	6.881E-04
MCY - TOT	16,478	172,389	1%		3.466E-06	1.288E-06	2.551E-05	2.240E-09	4.512E-08	1.808E-08	1.745E-04	1.570E-04
MDV - TOT	75,458	2,872,536	11%		1.669E-07	1.254E-07	1.210E-06	6.006E-09	4.741E-08	2.021E-08	5.997E-04	4.214E-04
MH - TOT	1,811	23,952	0.1%		4.163E-08	7.644E-07	2.892E-07	7.493E-09	6.911E-08	3.280E-08	7.583E-04	6.825E-04
Motor Coach - TOT	185	27,695	0.1%		2.839E-07	2.232E-06	1.384E-06	1.714E-08	2.086E-07	1.198E-07	1.797E-03	1.617E-03
OBUS - TOT	366	20,329	0.1%		6.369E-07	9.082E-07	5.927E-06	7.239E-09	4.519E-08	1.816E-08	7.147E-04	6.432E-04
PTO - TOT	0	2,713	0.0%		2.661E-07	2.088E-06	8.188E-07	2.020E-08	4.453E-08	4.097E-08	2.117E-03	1.905E-03
SBUS - TOT	113	4,771	0.0%		3.664E-07	3.131E-06	3.270E-06	1.029E-08	4.012E-07	1.826E-07	1.055E-03	9.495E-04
T6 Ag - TOT	61	2,165	0.0%		1.366E-07	1.352E-06	5.313E-07	1.136E-08	1.873E-07	1.003E-07	1.191E-03	1.072E-03
T6 CAIRP heavy - TOT	3	211	0.0%		1.173E-07	1.079E-06	4.409E-07	1.127E-08	1.801E-07	9.359E-08	1.181E-03	1.063E-03
T6 CAIRP small - TOT	10	731	0.0%		1.114E-07	9.919E-07	4.175E-07	1.126E-08	1.776E-07	9.129E-08	1.180E-03	1.062E-03
T6 instate construction heavy - TOT	232	13,270	0.1%		1.279E-07	1.234E-06	4.822E-07	1.128E-08	1.845E-07	9.769E-08	1.183E-03	1.064E-03
T6 instate construction small - TOT	575	39,122	0.2%		1.167E-07	1.070E-06	4.377E-07	1.126E-08	1.799E-07	9.337E-08	1.181E-03	1.063E-03
T6 instate heavy - TOT	1,380	78,988	0.3%		1.280E-07	1.235E-06	4.827E-07	1.128E-08	1.846E-07	9.773E-08	1.183E-03	1.064E-03
T6 instate small - TOT	3,419	232,397	0.9%		1.167E-07	1.070E-06	4.379E-07	1.126E-08	1.799E-07	9.339E-08	1.181E-03	1.063E-03
T6 OOS heavy - TOT	2	121	0.0%		1.173E-07	1.079E-06	4.409E-07	1.127E-08	1.801E-07	9.359E-08	1.181E-03	1.063E-03
T6 OOS small - TOT	6	419	0.0%		1.114E-07	9.919E-07	4.175E-07	1.126E-08	1.776E-07	9.129E-08	1.180E-03	1.062E-03
T6 public - TOT	581	11,005	0.0%		1.059E-07	1.062E-06	4.644E-07	1.154E-08	1.722E-07	8.637E-08	1.210E-03	1.089E-03
T6 utility - TOT	87	1,752	0.0%		1.018E-07	8.780E-07	4.465E-07	1.151E-08	1.704E-07	8.466E-08	1.207E-03	1.086E-03
T6TS - TOT	1,085	60,741	0.2%		3.863E-07	5.709E-07	3.945E-06	7.072E-09	4.513E-08	1.810E-08	7.015E-04	6.314E-04
T7 Ag - TOT	12	880	0.0%		2.937E-07	2.368E-06	1.427E-06	1.713E-08	1.686E-07	1.006E-07	1.795E-03	1.616E-03
T7 CAIRP - TOT	77	18,605	0.1%		3.532E-07	2.754E-06	1.756E-06	1.761E-08	1.726E-07	1.043E-07	1.845E-03	1.661E-03
T7 CAIRP construction - TOT	7	1,617	0.0%		3.532E-07	2.755E-06	1.756E-06	1.761E-08	1.726E-07	1.043E-07	1.846E-03	1.661E-03
T7 NNOOS - TOT	76	20,930	0.1%		3.364E-07	2.410E-06	1.691E-06	1.772E-08	1.603E-07	9.303E-08	1.857E-03	1.671E-03
T7 NOOS - TOT	28	6,776	0.0%		3.856E-07	2.923E-06	1.939E-06	1.790E-08	1.730E-07	1.047E-07	1.876E-03	1.689E-03
T7 other port - TOT	11	1,756	0.0%		3.113E-07	2.934E-06	1.473E-06	1.682E-08	1.905E-07	1.208E-07	1.763E-03	1.587E-03
T7 POAK - TOT	76	15,659	0.1%		3.273E-07	3.017E-06	1.563E-06	1.697E-08	1.907E-07	1.210E-07	1.779E-03	1.601E-03
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	43	1,072	0.0%		4.748E-07	4.759E-06	2.512E-06	1.969E-08	1.481E-07	8.181E-08	2.064E-03	1.858E-03
T7 Single - TOT	143	11,284	0.0%		2.525E-07	1.866E-06	1.231E-06	1.706E-08	1.541E-07	8.729E-08	1.789E-03	1.610E-03
T7 single construction - TOT	53	4,182	0.0%		2.527E-07	1.868E-06	1.232E-06	1.706E-08	1.541E-07	8.732E-08	1.789E-03	1.610E-03
T7 SWCV - TOT	58	2,919	0.0%		3.378E-07	2.279E-06	1.729E-06	1.800E-08	1.482E-07	8.186E-08	1.887E-03	1.698E-03
T7 tractor - TOT	204	33,990	0.1%		2.551E-07	2.251E-06	1.201E-06	1.671E-08	1.715E-07	1.033E-07	1.751E-03	1.576E-03
T7 tractor construction - TOT	39	3,118	0.0%		2.932E-07	2.453E-06	1.416E-06	1.705E-08	1.722E-07	1.040E-07	1.787E-03	1.608E-03
T7 utility - TOT	7	168	0.0%		5.002E-07	2.851E-06	2.664E-06	1.962E-08	1.435E-07	7.757E-08	2.057E-03	1.851E-03
T7IS - TOT	35	4,615	0.0%		7.568E-07	5.639E-06	3.984E-05	6.568E-09	4.497E-08	1.796E-08	5.931E-04	5.338E-04
UBUS - TOT	549	86,970	0.3%		4.662E-07	9.182E-06	2.455E-06	2.163E-08	9.687E-07	5.042E-07	2.262E-03	2.035E-03
		25,135,218	100%									

San Mateo 2035 Annual				2.000E+03	lbs/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	462	27,057	0%		3.033E-04	3.026E-03	1.137E-03	2.487E-05	4.162E-04	2.240E-04	2.607E+00	2.346E+00
LDA - TOT	404,005	14,586,363	58%		1.335E-04	1.420E-04	1.506E-03	7.628E-06	1.050E-04	4.506E-05	7.618E-01	4.549E-01
LDT1 - TOT	39,894	1,545,248	6%		2.496E-04	1.838E-04	2.021E-03	8.832E-06	1.047E-04	4.472E-05	8.814E-01	5.541E-01
LDT2 - TOT	109,003	4,338,647	17%		2.341E-04	1.884E-04	1.862E-03	1.033E-05	1.047E-04	4.478E-05	1.032E+00	7.067E-01
LHD1 - TOT	18,140	752,903	3%		5.450E-04	1.622E-03	3.366E-03	1.929E-05	1.376E-04	6.295E-05	1.940E+00	1.746E+00
LHD2 - TOT	2,543	105,150	0%		3.521E-04	1.694E-03	2.694E-03	1.661E-05	1.866E-04	8.931E-05	1.686E+00	1.517E+00
MCY - TOT	16,478	172,389	1%		7.642E-03	2.839E-03	5.624E-02	4.938E-06	9.948E-05	3.985E-05	3.847E-01	3.462E-01
MDV - TOT	75,458	2,872,536	11%		3.680E-04	2.765E-04	2.667E-03	1.324E-05	1.045E-04	4.457E-05	1.322E+00	9.291E-01
MH - TOT	1,811	23,952	0.1%		9.179E-05	1.685E-03	6.375E-04	1.652E-05	1.524E-04	7.231E-05	1.672E+00	1.505E+00
Motor Coach - TOT	185	27,695	0.1%		6.259E-04	4.920E-03	3.051E-03	3.779E-05	4.598E-04	2.641E-04	3.961E+00	3.565E+00
OBUS - TOT	366	20,329	0.1%		1.404E-03	2.002E-03	1.307E-02	1.596E-05	9.963E-05	4.003E-05	1.576E+00	1.418E+00
PTO - TOT	0	2,713	0.0%		5.867E-04	4.603E-03	1.805E-03	4.453E-05	9.817E-05	9.031E-05	4.667E+00	4.201E+00
SBUS - TOT	113	4,771	0.0%		8.079E-04	6.903E-03	7.210E-03	2.269E-05	8.846E-04	4.025E-04	2.326E+00	2.093E+00
T6 Ag - TOT	61	2,165	0.0%		3.011E-04	2.980E-03	1.171E-03	2.505E-05	4.130E-04	2.210E-04	2.625E+00	2.363E+00
T6 CAIRP heavy - TOT	3	211	0.0%		2.586E-04	2.379E-03	9.719E-04	2.484E-05	3.970E-04	2.063E-04	2.604E+00	2.343E+00
T6 CAIRP small - TOT	10	731	0.0%		2.455E-04	2.187E-03	9.204E-04	2.482E-05	3.915E-04	2.013E-04	2.601E+00	2.341E+00
T6 instate construction heavy - TOT	232	13,270	0.1%		2.820E-04	2.720E-03	1.063E-03	2.488E-05	4.069E-04	2.154E-04	2.607E+00	2.347E+00
T6 instate construction small - TOT	575	39,122	0.2%		2.572E-04	2.358E-03	9.651E-04	2.483E-05	3.965E-04	2.058E-04	2.603E+00	2.343E+00
T6 instate heavy - TOT	1,380	78,988	0.3%		2.823E-04	2.723E-03	1.064E-03	2.488E-05	4.070E-04	2.155E-04	2.607E+00	2.347E+00
T6 instate small - TOT	3,419	232,397	0.9%		2.573E-04	2.359E-03	9.654E-04	2.483E-05	3.965E-04	2.059E-04	2.603E+00	2.343E+00
T6 OOS heavy - TOT	2	121	0.0%		2.586E-04	2.379E-03	9.719E-04	2.484E-05	3.970E-04	2.063E-04	2.604E+00	2.343E+00
T6 OOS small - TOT	6	419	0.0%		2.455E-04	2.187E-03	9.204E-04	2.482E-05	3.915E-04	2.013E-04	2.601E+00	2.341E+00
T6 public - TOT	581	11,005	0.0%		2.336E-04	2.341E-03	1.024E-03	2.544E-05	3.797E-04	1.904E-04	2.667E+00	2.400E+00
T6 utility - TOT	87	1,752	0.0%		2.245E-04	1.936E-03	9.844E-04	2.538E-05	3.756E-04	1.866E-04	2.661E+00	2.395E+00
T6TS - TOT	1,085	60,741	0.2%		8.517E-04	1.259E-03	8.698E-03	1.559E-05	9.949E-05	3.991E-05	1.547E+00	1.392E+00
T7 Ag - TOT	12	880	0.0%		6.476E-04	5.221E-03	3.145E-03	3.776E-05	3.716E-04	2.219E-04	3.958E+00	3.562E+00
T7 CAIRP - TOT	77	18,605	0.1%		7.786E-04	6.073E-03	3.871E-03	3.882E-05	3.805E-04	2.299E-04	4.069E+00	3.662E+00
T7 CAIRP construction - TOT	7	1,617	0.0%		7.788E-04	6.073E-03	3.872E-03	3.882E-05	3.805E-04	2.300E-04	4.069E+00	3.662E+00
T7 NNOOS - TOT	76	20,930	0.1%		7.416E-04	5.313E-03	3.729E-03	3.906E-05	3.534E-04	2.051E-04	4.094E+00	3.684E+00
T7 NOOS - TOT	28	6,776	0.0%		8.500E-04	6.443E-03	4.274E-03	3.946E-05	3.815E-04	2.309E-04	4.137E+00	3.723E+00
T7 other port - TOT	11	1,756	0.0%		6.864E-04	6.469E-03	3.248E-03	3.709E-05	4.200E-04	2.663E-04	3.888E+00	3.499E+00
T7 POAK - TOT	76	15,659	0.1%		7.216E-04	6.652E-03	3.446E-03	3.741E-05	4.205E-04	2.668E-04	3.921E+00	3.529E+00
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	43	1,072	0.0%		1.047E-03	1.049E-02	5.538E-03	4.341E-05	3.265E-04	1.804E-04	4.550E+00	4.095E+00
T7 Single - TOT	143	11,284	0.0%		5.567E-04	4.115E-03	2.713E-03	3.762E-05	3.397E-04	1.924E-04	3.943E+00	3.549E+00
T7 single construction - TOT	53	4,182	0.0%		5.572E-04	4.119E-03	2.715E-03	3.762E-05	3.398E-04	1.925E-04	3.943E+00	3.549E+00
T7 SWCV - TOT	58	2,919	0.0%		7.446E-04	5.025E-03	3.811E-03	3.969E-05	3.267E-04	1.805E-04	4.161E+00	3.745E+00
T7 tractor - TOT	204	33,990	0.1%		5.624E-04	4.963E-03	2.649E-03	3.684E-05	3.780E-04	2.277E-04	3.861E+00	3.475E+00
T7 tractor construction - TOT	39	3,118	0.0%		6.464E-04	5.408E-03	3.121E-03	3.759E-05	3.797E-04	2.293E-04	3.940E+00	3.546E+00
T7 utility - TOT	7	168	0.0%		1.103E-03	6.286E-03	5.873E-03	4.326E-05	3.164E-04	1.710E-04	4.534E+00	4.081E+00
T7IS - TOT	35	4,615	0.0%		1.669E-03	1.243E-02	8.783E-02	1.448E-05	9.915E-05	3.959E-05	1.307E+00	1.177E+00
UBUS - TOT	549	86,970	0.3%		1.028E-03	2.024E-02	5.412E-03	4.769E-05	2.136E-03	1.112E-03	4.986E+00	4.487E+00
		25,135,218	100%									

San Mateo 2020 Annual				Tons/Day							
Veh & Tech	Pop	VMT	Percent of VMT	ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	377	20,858	0%	3.129E-03	7.478E-02	1.148E-02	2.617E-04	4.430E-03	2.418E-03	2.743E+01	2.469E+01
LDA - TOT	362,621	13,108,476	58%	1.390E+00	1.331E+00	1.436E+01	5.005E-02	6.796E-01	2.870E-01	4.991E+03	3.488E+03
LDT1 - TOT	36,575	1,415,149	6%	4.366E-01	3.985E-01	4.035E+00	6.256E-03	7.590E-02	3.334E-02	6.199E+02	4.661E+02
LDT2 - TOT	99,817	3,992,230	18%	6.428E-01	7.146E-01	6.236E+00	2.068E-02	2.065E-01	8.703E-02	2.061E+03	1.583E+03
LHD1 - TOT	16,147	667,592	3%	3.696E-01	1.083E+00	2.509E+00	6.472E-03	5.006E-02	2.484E-02	6.482E+02	5.834E+02
LHD2 - TOT	2,288	93,971	0%	3.491E-02	1.836E-01	2.222E-01	7.839E-04	9.660E-03	5.023E-03	7.939E+01	7.145E+01
MCY - TOT	14,305	150,370	1%	5.939E-01	2.161E-01	4.522E+00	3.706E-04	7.512E-03	3.020E-03	2.835E+01	2.551E+01
MDV - TOT	66,633	2,565,590	11%	7.355E-01	8.953E-01	7.122E+00	1.698E-02	1.338E-01	5.687E-02	1.689E+03	1.341E+03
MH - TOT	1,671	22,217	0.1%	3.034E-03	3.570E-02	5.197E-02	1.836E-04	2.109E-03	1.190E-03	1.850E+01	1.665E+01
Motor Coach - TOT	149	21,349	0.1%	6.539E-03	9.717E-02	3.155E-02	4.068E-04	5.024E-03	2.925E-03	4.264E+01	3.837E+01
OBUS - TOT	318	18,117	0.1%	1.923E-02	4.049E-02	2.302E-01	1.464E-04	9.129E-04	3.722E-04	1.426E+01	1.283E+01
PTO - TOT	0	2,072	0.0%	5.643E-04	1.340E-02	1.778E-03	4.660E-05	1.155E-04	1.063E-04	4.885E+00	4.396E+00
SBUS - TOT	117	5,021	0.0%	4.696E-03	3.703E-02	5.213E-02	5.910E-05	2.475E-03	1.146E-03	6.006E+00	5.406E+00
T6 Ag - TOT	68	2,270	0.0%	6.747E-04	9.011E-03	2.306E-03	2.869E-05	6.770E-04	4.424E-04	3.007E+00	2.706E+00
T6 CAIRP heavy - TOT	3	171	0.0%	2.224E-05	4.043E-04	8.235E-05	2.141E-06	3.454E-05	1.815E-05	2.245E-01	2.020E-01
T6 CAIRP small - TOT	8	586	0.0%	7.829E-05	7.784E-04	2.921E-04	7.288E-06	1.193E-04	6.313E-05	7.639E-01	6.875E-01
T6 instate construction heavy - TOT	147	7,870	0.0%	1.098E-03	3.208E-02	4.018E-03	9.909E-05	1.654E-03	8.967E-04	1.039E+01	9.348E+00
T6 instate construction small - TOT	319	21,218	0.1%	3.333E-03	3.828E-02	1.239E-02	2.644E-04	4.658E-03	2.599E-03	2.771E+01	2.494E+01
T6 instate heavy - TOT	1,212	67,128	0.3%	9.306E-03	2.475E-01	3.417E-02	8.438E-04	1.401E-02	7.557E-03	8.844E+01	7.960E+01
T6 instate small - TOT	2,797	189,483	0.8%	2.884E-02	3.220E-01	1.072E-01	2.360E-03	4.093E-02	2.260E-02	2.473E+02	2.226E+02
T6 OOS heavy - TOT	2	98	0.0%	1.275E-05	2.318E-04	4.721E-05	1.228E-06	1.980E-05	1.041E-05	1.287E-01	1.158E-01
T6 OOS small - TOT	5	336	0.0%	4.489E-05	4.463E-04	1.675E-04	4.178E-06	6.838E-05	3.619E-05	4.380E-01	3.942E-01
T6 public - TOT	437	8,177	0.0%	8.470E-04	3.634E-02	3.511E-03	1.054E-04	1.596E-03	8.180E-04	1.105E+01	9.946E+00
T6 utility - TOT	67	1,335	0.0%	1.439E-04	3.142E-03	6.177E-04	1.707E-05	2.536E-04	1.273E-04	1.789E+00	1.610E+00
T6TS - TOT	972	55,292	0.2%	4.751E-02	9.920E-02	6.273E-01	4.376E-04	2.812E-03	1.160E-03	4.274E+01	3.847E+01
T7 Ag - TOT	14	922	0.0%	3.964E-04	6.271E-03	1.833E-03	1.738E-05	2.629E-04	1.865E-04	1.822E+00	1.640E+00
T7 CAIRP - TOT	58	14,261	0.1%	5.497E-03	5.041E-02	2.702E-02	2.760E-04	2.747E-03	1.671E-03	2.893E+01	2.604E+01
T7 CAIRP construction - TOT	4	898	0.0%	3.456E-04	3.215E-03	1.698E-03	1.737E-05	1.729E-04	1.052E-04	1.821E+00	1.639E+00
T7 NNOOS - TOT	57	16,043	0.1%	5.923E-03	4.361E-02	2.968E-02	3.129E-04	2.837E-03	1.647E-03	3.279E+01	2.952E+01
T7 NOOS - TOT	21	5,194	0.0%	2.171E-03	1.928E-02	1.079E-02	1.021E-04	1.003E-03	6.111E-04	1.070E+01	9.631E+00
T7 other port - TOT	9	1,384	0.0%	8.422E-04	1.218E-02	3.895E-03	2.641E-05	3.267E-04	2.175E-04	2.768E+00	2.491E+00
T7 POAK - TOT	41	7,532	0.0%	4.768E-03	6.751E-02	2.223E-02	1.453E-04	1.781E-03	1.186E-03	1.523E+01	1.371E+01
T7 POLA - TOT	0	0	0.0%	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
T7 public - TOT	32	797	0.0%	2.931E-04	1.085E-02	1.490E-03	1.761E-05	1.461E-04	8.659E-05	1.846E+00	1.661E+00
T7 Single - TOT	111	8,649	0.0%	2.064E-03	4.699E-02	9.853E-03	1.630E-04	1.497E-03	8.579E-04	1.708E+01	1.538E+01
T7 single construction - TOT	30	2,322	0.0%	5.526E-04	1.304E-02	2.636E-03	4.377E-05	4.028E-04	2.312E-04	4.588E+00	4.129E+00
T7 SWCV - TOT	43	2,169	0.0%	6.371E-04	1.893E-02	3.203E-03	4.356E-05	3.659E-04	2.064E-04	4.565E+00	4.109E+00
T7 tractor - TOT	160	26,054	0.1%	7.242E-03	1.265E-01	3.367E-02	4.820E-04	5.062E-03	3.093E-03	5.052E+01	4.547E+01
T7 tractor construction - TOT	22	1,731	0.0%	5.331E-04	9.557E-03	2.529E-03	3.261E-05	3.387E-04	2.077E-04	3.418E+00	3.076E+00
T7 utility - TOT	5	128	0.0%	5.747E-05	9.682E-04	3.043E-04	2.792E-06	2.070E-05	1.137E-05	2.926E-01	2.633E-01
T7IS - TOT	41	5,612	0.0%	7.329E-03	3.845E-02	2.631E-01	4.095E-05	2.800E-04	1.128E-04	3.667E+00	3.300E+00
UBUS - TOT	523	82,827	0.4%	7.100E-02	1.257E+00	3.624E-01	2.094E-03	9.428E-02	5.141E-02	2.188E+02	1.969E+02
		22,613,497	100%								

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Veh & Tech	Pop	VMT	Percent of VMT
All Other Buses - TOT	377	20,858	0%
LDA - TOT	362,621	13,108,476	58%
LDT1 - TOT	36,575	1,415,149	6%
LDT2 - TOT	99,817	3,992,230	18%
LHD1 - TOT	16,147	667,592	3%
LHD2 - TOT	2,288	93,971	0%
MCY - TOT	14,305	150,370	1%
MDV - TOT	66,633	2,565,590	11%
MH - TOT	1,671	22,217	0.1%
Motor Coach - TOT	149	21,349	0.1%
OBUS - TOT	318	18,117	0.1%
PTO - TOT	0	2,072	0.0%
SBUS - TOT	117	5,021	0.0%
T6 Ag - TOT	68	2,270	0.0%
T6 CAIRP heavy - TOT	3	171	0.0%
T6 CAIRP small - TOT	8	586	0.0%
T6 instate construction heavy - TOT	147	7,870	0.0%
T6 instate construction small - TOT	319	21,218	0.1%
T6 instate heavy - TOT	1,212	67,128	0.3%
T6 instate small - TOT	2,797	189,483	0.8%
T6 OOS heavy - TOT	2	98	0.0%
T6 OOS small - TOT	5	336	0.0%
T6 public - TOT	437	8,177	0.0%
T6 utility - TOT	67	1,335	0.0%
T6TS - TOT	972	55,292	0.2%
T7 Ag - TOT	14	922	0.0%
T7 CAIRP - TOT	58	14,261	0.1%
T7 CAIRP construction - TOT	4	898	0.0%
T7 NNOOS - TOT	57	16,043	0.1%
T7 NOOS - TOT	21	5,194	0.0%
T7 other port - TOT	9	1,384	0.0%
T7 POAK - TOT	41	7,532	0.0%
T7 POLA - TOT	0	0	0.0%
T7 public - TOT	32	797	0.0%
T7 Single - TOT	111	8,649	0.0%
T7 single construction - TOT	30	2,322	0.0%
T7 SWCV - TOT	43	2,169	0.0%
T7 tractor - TOT	160	26,054	0.1%
T7 tractor construction - TOT	22	1,731	0.0%
T7 utility - TOT	5	128	0.0%
T7IS - TOT	41	5,612	0.0%
UBUS - TOT	523	82,827	0.4%
		22,613,497	100%

San Mateo 2020 Annual				9.072E-01	MTons/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	377	20,858	0%		1.361E-07	3.252E-06	4.993E-07	1.138E-08	1.927E-07	1.052E-07	1.193E-03	1.074E-03
LDA - TOT	362,621	13,108,476	58%		9.619E-08	9.213E-08	9.935E-07	3.464E-09	4.703E-08	1.987E-08	3.454E-04	2.414E-04
LDT1 - TOT	36,575	1,415,149	6%		2.799E-07	2.555E-07	2.586E-06	4.010E-09	4.866E-08	2.137E-08	3.974E-04	2.988E-04
LDT2 - TOT	99,817	3,992,230	18%		1.461E-07	1.624E-07	1.417E-06	4.699E-09	4.693E-08	1.978E-08	4.683E-04	3.598E-04
LHD1 - TOT	16,147	667,592	3%		5.023E-07	1.472E-06	3.409E-06	8.795E-09	6.803E-08	3.375E-08	8.809E-04	7.928E-04
LHD2 - TOT	2,288	93,971	0%		3.370E-07	1.773E-06	2.146E-06	7.568E-09	9.326E-08	4.849E-08	7.664E-04	6.897E-04
MCY - TOT	14,305	150,370	1%		3.583E-06	1.304E-06	2.728E-05	2.236E-09	4.532E-08	1.822E-08	1.710E-04	1.539E-04
MDV - TOT	66,633	2,565,590	11%		2.601E-07	3.166E-07	2.518E-06	6.003E-09	4.730E-08	2.011E-08	5.971E-04	4.741E-04
MH - TOT	1,671	22,217	0.1%		1.239E-07	1.458E-06	2.122E-06	7.498E-09	8.612E-08	4.859E-08	7.555E-04	6.800E-04
Motor Coach - TOT	149	21,349	0.1%		2.779E-07	4.129E-06	1.341E-06	1.729E-08	2.135E-07	1.243E-07	1.812E-03	1.631E-03
OBUS - TOT	318	18,117	0.1%		9.629E-07	2.027E-06	1.153E-05	7.330E-09	4.571E-08	1.864E-08	7.140E-04	6.426E-04
PTO - TOT	0	2,072	0.0%		2.471E-07	5.867E-06	7.785E-07	2.041E-08	5.058E-08	4.654E-08	2.139E-03	1.925E-03
SBUS - TOT	117	5,021	0.0%		8.485E-07	6.690E-06	9.420E-06	1.068E-08	4.473E-07	2.071E-07	1.085E-03	9.767E-04
T6 Ag - TOT	68	2,270	0.0%		2.696E-07	3.601E-06	9.216E-07	1.146E-08	2.706E-07	1.768E-07	1.202E-03	1.081E-03
T6 CAIRP heavy - TOT	3	171	0.0%		1.176E-07	2.139E-06	4.357E-07	1.133E-08	1.827E-07	9.602E-08	1.187E-03	1.069E-03
T6 CAIRP small - TOT	8	586	0.0%		1.211E-07	1.204E-06	4.518E-07	1.127E-08	1.845E-07	9.765E-08	1.182E-03	1.063E-03
T6 instate construction heavy - TOT	147	7,870	0.0%		1.266E-07	3.697E-06	4.631E-07	1.142E-08	1.907E-07	1.034E-07	1.197E-03	1.077E-03
T6 instate construction small - TOT	319	21,218	0.1%		1.425E-07	1.637E-06	5.295E-07	1.130E-08	1.991E-07	1.111E-07	1.185E-03	1.066E-03
T6 instate heavy - TOT	1,212	67,128	0.3%		1.258E-07	3.344E-06	4.618E-07	1.140E-08	1.894E-07	1.021E-07	1.195E-03	1.076E-03
T6 instate small - TOT	2,797	189,483	0.8%		1.381E-07	1.542E-06	5.134E-07	1.130E-08	1.960E-07	1.082E-07	1.184E-03	1.066E-03
T6 OOS heavy - TOT	2	98	0.0%		1.176E-07	2.139E-06	4.357E-07	1.133E-08	1.827E-07	9.602E-08	1.187E-03	1.069E-03
T6 OOS small - TOT	5	336	0.0%		1.211E-07	1.204E-06	4.518E-07	1.127E-08	1.845E-07	9.765E-08	1.182E-03	1.063E-03
T6 public - TOT	437	8,177	0.0%		9.397E-08	4.031E-06	3.895E-07	1.170E-08	1.770E-07	9.076E-08	1.226E-03	1.103E-03
T6 utility - TOT	67	1,335	0.0%		9.782E-08	2.136E-06	4.199E-07	1.160E-08	1.724E-07	8.652E-08	1.216E-03	1.094E-03
T6TS - TOT	972	55,292	0.2%		7.795E-07	1.628E-06	1.029E-05	7.180E-09	4.614E-08	1.903E-08	7.012E-04	6.311E-04
T7 Ag - TOT	14	922	0.0%		3.898E-07	6.167E-06	1.803E-06	1.710E-08	2.585E-07	1.834E-07	1.792E-03	1.613E-03
T7 CAIRP - TOT	58	14,261	0.1%		3.497E-07	3.207E-06	1.719E-06	1.756E-08	1.747E-07	1.063E-07	1.841E-03	1.656E-03
T7 CAIRP construction - TOT	4	898	0.0%		3.493E-07	3.249E-06	1.716E-06	1.756E-08	1.748E-07	1.063E-07	1.841E-03	1.657E-03
T7 NNOOS - TOT	57	16,043	0.1%		3.349E-07	2.466E-06	1.679E-06	1.769E-08	1.604E-07	9.312E-08	1.854E-03	1.669E-03
T7 NOOS - TOT	21	5,194	0.0%		3.793E-07	3.367E-06	1.884E-06	1.783E-08	1.752E-07	1.068E-07	1.869E-03	1.682E-03
T7 other port - TOT	9	1,384	0.0%		5.521E-07	7.987E-06	2.554E-06	1.731E-08	2.142E-07	1.426E-07	1.815E-03	1.633E-03
T7 POAK - TOT	41	7,532	0.0%		5.743E-07	8.131E-06	2.677E-06	1.750E-08	2.145E-07	1.429E-07	1.835E-03	1.651E-03
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	32	797	0.0%		3.337E-07	1.235E-05	1.696E-06	2.005E-08	1.663E-07	9.857E-08	2.101E-03	1.891E-03
T7 Single - TOT	111	8,649	0.0%		2.165E-07	4.928E-06	1.033E-06	1.710E-08	1.570E-07	8.998E-08	1.792E-03	1.613E-03
T7 single construction - TOT	30	2,322	0.0%		2.159E-07	5.094E-06	1.030E-06	1.710E-08	1.574E-07	9.035E-08	1.793E-03	1.613E-03
T7 SWCV - TOT	43	2,169	0.0%		2.665E-07	7.917E-06	1.340E-06	1.822E-08	1.530E-07	8.634E-08	1.910E-03	1.719E-03
T7 tractor - TOT	160	26,054	0.1%		2.522E-07	4.405E-06	1.172E-06	1.678E-08	1.763E-07	1.077E-07	1.759E-03	1.583E-03
T7 tractor construction - TOT	22	1,731	0.0%		2.794E-07	5.009E-06	1.325E-06	1.709E-08	1.775E-07	1.088E-07	1.791E-03	1.612E-03
T7 utility - TOT	5	128	0.0%		4.079E-07	6.873E-06	2.160E-06	1.982E-08	1.469E-07	8.070E-08	2.077E-03	1.869E-03
T7IS - TOT	41	5,612	0.0%		1.185E-06	6.216E-06	4.253E-05	6.620E-09	4.527E-08	1.823E-08	5.927E-04	5.335E-04
UBUS - TOT	523	82,827	0.4%		7.777E-07	1.377E-05	3.970E-06	2.293E-08	1.033E-06	5.630E-07	2.396E-03	2.157E-03
		22,613,497	100%									

San Mateo 2020 Annual				2.000E+03	lbs/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	377	20,858	0%		3.000E-04	7.170E-03	1.101E-03	2.510E-05	4.247E-04	2.318E-04	2.631E+00	2.367E+00
LDA - TOT	362,621	13,108,476	58%		2.121E-04	2.031E-04	2.190E-03	7.637E-06	1.037E-04	4.380E-05	7.615E-01	5.322E-01
LDT1 - TOT	36,575	1,415,149	6%		6.170E-04	5.632E-04	5.702E-03	8.841E-06	1.073E-04	4.712E-05	8.761E-01	6.587E-01
LDT2 - TOT	99,817	3,992,230	18%		3.220E-04	3.580E-04	3.124E-03	1.036E-05	1.035E-04	4.360E-05	1.033E+00	7.932E-01
LHD1 - TOT	16,147	667,592	3%		1.107E-03	3.245E-03	7.515E-03	1.939E-05	1.500E-04	7.441E-05	1.942E+00	1.748E+00
LHD2 - TOT	2,288	93,971	0%		7.429E-04	3.908E-03	4.730E-03	1.668E-05	2.056E-04	1.069E-04	1.690E+00	1.521E+00
MCY - TOT	14,305	150,370	1%		7.899E-03	2.874E-03	6.014E-02	4.930E-06	9.991E-05	4.017E-05	3.771E-01	3.394E-01
MDV - TOT	66,633	2,565,590	11%		5.734E-04	6.979E-04	5.552E-03	1.323E-05	1.043E-04	4.433E-05	1.316E+00	1.045E+00
MH - TOT	1,671	22,217	0.1%		2.731E-04	3.214E-03	4.678E-03	1.653E-05	1.899E-04	1.071E-04	1.666E+00	1.499E+00
Motor Coach - TOT	149	21,349	0.1%		6.126E-04	9.103E-03	2.956E-03	3.811E-05	4.706E-04	2.740E-04	3.994E+00	3.595E+00
OBUS - TOT	318	18,117	0.1%		2.123E-03	4.470E-03	2.541E-02	1.616E-05	1.008E-04	4.109E-05	1.574E+00	1.417E+00
PTO - TOT	0	2,072	0.0%		5.447E-04	1.294E-02	1.716E-03	4.499E-05	1.115E-04	1.026E-04	4.716E+00	4.244E+00
SBUS - TOT	117	5,021	0.0%		1.871E-03	1.475E-02	2.077E-02	2.354E-05	9.860E-04	4.567E-04	2.393E+00	2.153E+00
T6 Ag - TOT	68	2,270	0.0%		5.944E-04	7.939E-03	2.032E-03	2.527E-05	5.965E-04	3.898E-04	2.649E+00	2.384E+00
T6 CAIRP heavy - TOT	3	171	0.0%		2.594E-04	4.715E-03	9.605E-04	2.498E-05	4.029E-04	2.117E-04	2.618E+00	2.356E+00
T6 CAIRP small - TOT	8	586	0.0%		2.670E-04	2.655E-03	9.961E-04	2.485E-05	4.068E-04	2.153E-04	2.605E+00	2.345E+00
T6 instate construction heavy - TOT	147	7,870	0.0%		2.790E-04	8.152E-03	1.021E-03	2.518E-05	4.204E-04	2.279E-04	2.639E+00	2.375E+00
T6 instate construction small - TOT	319	21,218	0.1%		3.142E-04	3.608E-03	1.167E-03	2.492E-05	4.390E-04	2.450E-04	2.612E+00	2.351E+00
T6 instate heavy - TOT	1,212	67,128	0.3%		2.773E-04	7.373E-03	1.018E-03	2.514E-05	4.175E-04	2.251E-04	2.635E+00	2.371E+00
T6 instate small - TOT	2,797	189,483	0.8%		3.044E-04	3.399E-03	1.132E-03	2.491E-05	4.320E-04	2.385E-04	2.611E+00	2.350E+00
T6 OOS heavy - TOT	2	98	0.0%		2.594E-04	4.715E-03	9.605E-04	2.498E-05	4.029E-04	2.117E-04	2.618E+00	2.356E+00
T6 OOS small - TOT	5	336	0.0%		2.670E-04	2.655E-03	9.961E-04	2.485E-05	4.068E-04	2.153E-04	2.605E+00	2.345E+00
T6 public - TOT	437	8,177	0.0%		2.072E-04	8.888E-03	8.588E-04	2.579E-05	3.902E-04	2.001E-04	2.703E+00	2.433E+00
T6 utility - TOT	67	1,335	0.0%		2.157E-04	4.708E-03	9.257E-04	2.558E-05	3.801E-04	1.907E-04	2.681E+00	2.413E+00
T6TS - TOT	972	55,292	0.2%		1.718E-03	3.588E-03	2.269E-02	1.583E-05	1.017E-04	4.195E-05	1.546E+00	1.391E+00
T7 Ag - TOT	14	922	0.0%		8.595E-04	1.360E-02	3.975E-03	3.769E-05	5.700E-04	4.043E-04	3.951E+00	3.556E+00
T7 CAIRP - TOT	58	14,261	0.1%		7.709E-04	7.070E-03	3.790E-03	3.871E-05	3.852E-04	2.343E-04	4.058E+00	3.652E+00
T7 CAIRP construction - TOT	4	898	0.0%		7.702E-04	7.163E-03	3.784E-03	3.871E-05	3.853E-04	2.344E-04	4.058E+00	3.652E+00
T7 NNOOS - TOT	57	16,043	0.1%		7.384E-04	5.436E-03	3.701E-03	3.900E-05	3.536E-04	2.053E-04	4.088E+00	3.679E+00
T7 NOOS - TOT	21	5,194	0.0%		8.362E-04	7.423E-03	4.154E-03	3.932E-05	3.863E-04	2.353E-04	4.121E+00	3.709E+00
T7 other port - TOT	9	1,384	0.0%		1.217E-03	1.761E-02	5.630E-03	3.817E-05	4.722E-04	3.143E-04	4.001E+00	3.601E+00
T7 POAK - TOT	41	7,532	0.0%		1.266E-03	1.793E-02	5.902E-03	3.859E-05	4.729E-04	3.150E-04	4.045E+00	3.640E+00
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	32	797	0.0%		7.357E-04	2.723E-02	3.740E-03	4.419E-05	3.667E-04	2.173E-04	4.632E+00	4.169E+00
T7 Single - TOT	111	8,649	0.0%		4.773E-04	1.087E-02	2.278E-03	3.769E-05	3.461E-04	1.984E-04	3.950E+00	3.555E+00
T7 single construction - TOT	30	2,322	0.0%		4.760E-04	1.123E-02	2.270E-03	3.771E-05	3.470E-04	1.992E-04	3.952E+00	3.557E+00
T7 SWCV - TOT	43	2,169	0.0%		5.875E-04	1.745E-02	2.954E-03	4.017E-05	3.374E-04	1.903E-04	4.210E+00	3.789E+00
T7 tractor - TOT	160	26,054	0.1%		5.559E-04	9.710E-03	2.584E-03	3.700E-05	3.886E-04	2.374E-04	3.878E+00	3.490E+00
T7 tractor construction - TOT	22	1,731	0.0%		6.160E-04	1.104E-02	2.921E-03	3.767E-05	3.913E-04	2.400E-04	3.949E+00	3.554E+00
T7 utility - TOT	5	128	0.0%		8.993E-04	1.515E-02	4.762E-03	4.369E-05	3.239E-04	1.779E-04	4.579E+00	4.121E+00
T7IS - TOT	41	5,612	0.0%		2.612E-03	1.370E-02	9.376E-02	1.459E-05	9.980E-05	4.019E-05	1.307E+00	1.176E+00
UBUS - TOT	523	82,827	0.4%		1.714E-03	3.036E-02	8.752E-03	5.056E-05	2.277E-03	1.241E-03	5.283E+00	4.754E+00
		22,613,497	100%									

San Mateo 2012 Annual				Tons/Day							
Veh & Tech	Pop	VMT	Percent of VMT	ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	300	17,060	0%	1.036E-02	1.756E-01	3.144E-02	2.170E-04	9.608E-03	7.484E-03	2.274E+01	2.263E+01
LDA - TOT	337,155	12,222,158	57%	3.492E+00	3.060E+00	3.427E+01	4.689E-02	6.479E-01	2.798E-01	4.639E+03	4.408E+03
LDT1 - TOT	34,386	1,336,313	6%	7.861E-01	7.681E-01	8.316E+00	5.953E-03	7.572E-02	3.501E-02	5.820E+02	5.619E+02
LDT2 - TOT	94,406	3,770,122	18%	1.128E+00	1.665E+00	1.301E+01	1.966E-02	1.984E-01	8.508E-02	1.947E+03	1.888E+03
LHD1 - TOT	15,300	648,749	3%	4.992E-01	1.598E+00	4.131E+00	6.323E-03	5.332E-02	2.843E-02	6.303E+02	6.272E+02
LHD2 - TOT	2,164	90,971	0%	6.145E-02	2.982E-01	4.896E-01	7.598E-04	1.049E-02	5.871E-03	7.650E+01	7.612E+01
MCY - TOT	13,186	133,137	1%	6.459E-01	2.038E-01	5.412E+00	3.254E-04	6.877E-03	2.848E-03	2.240E+01	2.229E+01
MDV - TOT	63,061	2,526,906	12%	8.939E-01	1.541E+00	1.120E+01	1.666E-02	1.331E-01	5.723E-02	1.650E+03	1.611E+03
MH - TOT	1,593	20,799	0.1%	1.157E-02	5.802E-02	2.896E-01	1.768E-04	2.333E-03	1.430E-03	1.741E+01	1.732E+01
Motor Coach - TOT	118	17,187	0.1%	1.162E-02	2.405E-01	5.152E-02	3.296E-04	9.995E-03	7.829E-03	3.455E+01	3.438E+01
OBUS - TOT	298	19,095	0.1%	2.828E-02	7.020E-02	3.715E-01	1.562E-04	9.957E-04	4.205E-04	1.499E+01	1.491E+01
PTO - TOT	0	1,534	0.0%	1.406E-03	2.409E-02	6.675E-03	3.471E-05	8.384E-04	7.714E-04	3.638E+00	3.620E+00
SBUS - TOT	114	5,011	0.0%	8.040E-03	4.611E-02	9.010E-02	5.978E-05	3.470E-03	2.028E-03	6.019E+00	5.989E+00
T6 Ag - TOT	64	2,174	0.0%	1.721E-03	2.332E-02	5.070E-03	2.792E-05	1.425E-03	1.139E-03	2.926E+00	2.912E+00
T6 CAIRP heavy - TOT	2	144	0.0%	5.156E-05	1.043E-03	1.686E-04	1.816E-06	5.483E-05	3.903E-05	1.903E-01	1.894E-01
T6 CAIRP small - TOT	7	481	0.0%	1.439E-04	2.739E-03	4.908E-04	6.067E-06	1.666E-04	1.150E-04	6.359E-01	6.328E-01
T6 instate construction heavy - TOT	171	9,237	0.0%	5.354E-03	9.276E-02	1.641E-02	1.171E-04	4.749E-03	3.635E-03	1.227E+01	1.221E+01
T6 instate construction small - TOT	392	25,378	0.1%	1.053E-02	1.903E-01	3.417E-02	3.206E-04	1.069E-02	7.817E-03	3.361E+01	3.344E+01
T6 instate heavy - TOT	1,050	57,444	0.3%	3.240E-02	5.591E-01	9.945E-02	7.277E-04	2.891E-02	2.203E-02	7.627E+01	7.589E+01
T6 instate small - TOT	2,456	160,302	0.8%	6.412E-02	1.151E+00	2.085E-01	2.024E-03	6.570E-02	4.770E-02	2.121E+02	2.111E+02
T6 OOS heavy - TOT	1	82	0.0%	2.956E-05	5.981E-04	9.667E-05	1.041E-06	3.144E-05	2.237E-05	1.091E-01	1.086E-01
T6 OOS small - TOT	4	276	0.0%	8.249E-05	1.570E-03	2.814E-04	3.478E-06	9.551E-05	6.596E-05	3.646E-01	3.628E-01
T6 public - TOT	350	6,517	0.0%	2.259E-03	6.275E-02	7.612E-03	8.419E-05	2.689E-03	1.956E-03	8.825E+00	8.781E+00
T6 utility - TOT	56	1,095	0.0%	2.463E-04	8.667E-03	9.023E-04	1.412E-05	3.623E-04	2.462E-04	1.480E+00	1.473E+00
T6TS - TOT	913	47,474	0.2%	1.110E-01	2.196E-01	1.353E+00	3.939E-04	2.645E-03	1.192E-03	3.706E+01	3.687E+01
T7 Ag - TOT	13	889	0.0%	8.391E-04	1.531E-02	3.860E-03	1.674E-05	6.816E-04	5.737E-04	1.755E+00	1.746E+00
T7 CAIRP - TOT	45	10,528	0.0%	7.657E-03	1.199E-01	3.280E-02	2.009E-04	5.794E-03	4.699E-03	2.106E+01	2.095E+01
T7 CAIRP construction - TOT	5	1,068	0.0%	7.846E-04	1.234E-02	3.357E-03	2.038E-05	5.952E-04	4.835E-04	2.136E+00	2.125E+00
T7 NNOOS - TOT	45	11,844	0.1%	6.618E-03	8.577E-02	2.962E-02	2.295E-04	4.330E-03	3.273E-03	2.406E+01	2.394E+01
T7 NOOS - TOT	17	3,834	0.0%	2.850E-03	4.404E-02	1.210E-02	7.383E-05	2.109E-03	1.710E-03	7.739E+00	7.700E+00
T7 other port - TOT	7	1,147	0.0%	3.543E-04	2.101E-02	1.566E-03	2.169E-05	4.013E-04	3.003E-04	2.274E+00	2.262E+00
T7 POAK - TOT	31	4,580	0.0%	1.381E-03	9.074E-02	6.115E-03	8.794E-05	1.492E-03	1.098E-03	9.217E+00	9.171E+00
T7 POLA - TOT	0	0	0.0%	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
T7 public - TOT	26	639	0.0%	7.450E-04	1.374E-02	3.225E-03	1.403E-05	4.337E-04	3.606E-04	1.471E+00	1.463E+00
T7 Single - TOT	85	6,385	0.0%	3.970E-03	9.227E-02	1.790E-02	1.195E-04	3.300E-03	2.653E-03	1.252E+01	1.246E+01
T7 single construction - TOT	37	2,763	0.0%	1.734E-03	4.046E-02	7.817E-03	5.170E-05	1.443E-03	1.162E-03	5.419E+00	5.392E+00
T7 SWCV - TOT	35	1,739	0.0%	3.353E-04	2.954E-02	1.611E-03	3.550E-05	3.195E-04	1.895E-04	3.721E+00	3.703E+00
T7 tractor - TOT	120	19,234	0.1%	1.583E-02	2.751E-01	7.096E-02	3.564E-04	1.237E-02	1.023E-02	3.736E+01	3.717E+01
T7 tractor construction - TOT	27	2,060	0.0%	1.826E-03	3.089E-02	8.179E-03	3.854E-05	1.363E-03	1.130E-03	4.039E+00	4.019E+00
T7 utility - TOT	4	106	0.0%	7.572E-05	1.885E-03	3.636E-04	2.307E-06	4.284E-05	3.308E-05	2.418E-01	2.406E-01
T7IS - TOT	49	6,546	0.0%	1.817E-02	5.935E-02	4.265E-01	5.020E-05	3.424E-04	1.440E-04	4.306E+00	4.285E+00
UBUS - TOT	503	79,574	0.4%	7.739E-02	1.336E+00	4.520E-01	2.044E-03	9.268E-02	5.131E-02	2.134E+02	2.123E+02
		21,272,580	100.0%								

San Mateo 2012 Annual				9.072E-01	MTons/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	300	17,060	0%		5.507E-07	9.339E-06	1.672E-06	1.154E-08	5.109E-07	3.980E-07	1.209E-03	1.203E-03
LDA - TOT	337,155	12,222,158	57%		2.592E-07	2.271E-07	2.544E-06	3.480E-09	4.809E-08	2.077E-08	3.443E-04	3.272E-04
LDT1 - TOT	34,386	1,336,313	6%		5.337E-07	5.214E-07	5.646E-06	4.041E-09	5.140E-08	2.377E-08	3.951E-04	3.815E-04
LDT2 - TOT	94,406	3,770,122	18%		2.713E-07	4.005E-07	3.130E-06	4.730E-09	4.773E-08	2.047E-08	4.685E-04	4.544E-04
LHD1 - TOT	15,300	648,749	3%		6.981E-07	2.234E-06	5.777E-06	8.842E-09	7.456E-08	3.976E-08	8.814E-04	8.770E-04
LHD2 - TOT	2,164	90,971	0%		6.128E-07	2.973E-06	4.882E-06	7.577E-09	1.046E-07	5.855E-08	7.629E-04	7.590E-04
MCY - TOT	13,186	133,137	1%		4.401E-06	1.389E-06	3.688E-05	2.217E-09	4.686E-08	1.940E-08	1.526E-04	1.518E-04
MDV - TOT	63,061	2,526,906	12%		3.209E-07	5.533E-07	4.023E-06	5.983E-09	4.779E-08	2.055E-08	5.924E-04	5.785E-04
MH - TOT	1,593	20,799	0.1%		5.044E-07	2.531E-06	1.263E-05	7.710E-09	1.018E-07	6.236E-08	7.595E-04	7.557E-04
Motor Coach - TOT	118	17,187	0.1%		6.131E-07	1.269E-05	2.719E-06	1.740E-08	5.276E-07	4.133E-07	1.824E-03	1.815E-03
OBUS - TOT	298	19,095	0.1%		1.344E-06	3.335E-06	1.765E-05	7.420E-09	4.730E-08	1.998E-08	7.121E-04	7.085E-04
PTO - TOT	0	1,534	0.0%		8.314E-07	1.425E-05	3.947E-06	2.052E-08	4.958E-07	4.561E-07	2.151E-03	2.140E-03
SBUS - TOT	114	5,011	0.0%		1.456E-06	8.347E-06	1.631E-05	1.082E-08	6.282E-07	3.671E-07	1.090E-03	1.084E-03
T6 Ag - TOT	64	2,174	0.0%		7.184E-07	9.731E-06	2.116E-06	1.165E-08	5.949E-07	4.752E-07	1.221E-03	1.215E-03
T6 CAIRP heavy - TOT	2	144	0.0%		3.255E-07	6.587E-06	1.065E-06	1.146E-08	3.462E-07	2.464E-07	1.202E-03	1.196E-03
T6 CAIRP small - TOT	7	481	0.0%		2.714E-07	5.167E-06	9.259E-07	1.145E-08	3.143E-07	2.170E-07	1.200E-03	1.194E-03
T6 instate construction heavy - TOT	171	9,237	0.0%		5.259E-07	9.110E-06	1.612E-06	1.150E-08	4.664E-07	3.570E-07	1.205E-03	1.199E-03
T6 instate construction small - TOT	392	25,378	0.1%		3.764E-07	6.802E-06	1.221E-06	1.146E-08	3.821E-07	2.794E-07	1.201E-03	1.195E-03
T6 instate heavy - TOT	1,050	57,444	0.3%		5.117E-07	8.829E-06	1.571E-06	1.149E-08	4.565E-07	3.479E-07	1.205E-03	1.198E-03
T6 instate small - TOT	2,456	160,302	0.8%		3.628E-07	6.513E-06	1.180E-06	1.145E-08	3.718E-07	2.700E-07	1.200E-03	1.194E-03
T6 OOS heavy - TOT	1	82	0.0%		3.255E-07	6.587E-06	1.065E-06	1.146E-08	3.462E-07	2.464E-07	1.202E-03	1.196E-03
T6 OOS small - TOT	4	276	0.0%		2.714E-07	5.167E-06	9.259E-07	1.145E-08	3.143E-07	2.170E-07	1.200E-03	1.194E-03
T6 public - TOT	350	6,517	0.0%		3.145E-07	8.734E-06	1.060E-06	1.172E-08	3.743E-07	2.722E-07	1.228E-03	1.222E-03
T6 utility - TOT	56	1,095	0.0%		2.040E-07	7.179E-06	7.473E-07	1.170E-08	3.000E-07	2.039E-07	1.226E-03	1.220E-03
T6TS - TOT	913	47,474	0.2%		2.121E-06	4.196E-06	2.586E-05	7.527E-09	5.055E-08	2.279E-08	7.082E-04	7.046E-04
T7 Ag - TOT	13	889	0.0%		8.565E-07	1.563E-05	3.940E-06	1.709E-08	6.956E-07	5.855E-07	1.791E-03	1.782E-03
T7 CAIRP - TOT	45	10,528	0.0%		6.598E-07	1.033E-05	2.826E-06	1.731E-08	4.993E-07	4.049E-07	1.814E-03	1.805E-03
T7 CAIRP construction - TOT	5	1,068	0.0%		6.664E-07	1.048E-05	2.851E-06	1.731E-08	5.056E-07	4.107E-07	1.814E-03	1.805E-03
T7 NNOOS - TOT	45	11,844	0.1%		5.069E-07	6.570E-06	2.269E-06	1.758E-08	3.317E-07	2.507E-07	1.843E-03	1.833E-03
T7 NOOS - TOT	17	3,834	0.0%		6.744E-07	1.042E-05	2.863E-06	1.747E-08	4.989E-07	4.045E-07	1.831E-03	1.822E-03
T7 other port - TOT	7	1,147	0.0%		2.802E-07	1.662E-05	1.239E-06	1.716E-08	3.174E-07	2.375E-07	1.798E-03	1.789E-03
T7 POAK - TOT	31	4,580	0.0%		2.735E-07	1.797E-05	1.211E-06	1.742E-08	2.956E-07	2.175E-07	1.826E-03	1.817E-03
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	26	639	0.0%		1.058E-06	1.950E-05	4.577E-06	1.992E-08	6.156E-07	5.119E-07	2.088E-03	2.077E-03
T7 Single - TOT	85	6,385	0.0%		5.641E-07	1.311E-05	2.544E-06	1.697E-08	4.689E-07	3.769E-07	1.779E-03	1.770E-03
T7 single construction - TOT	37	2,763	0.0%		5.695E-07	1.329E-05	2.567E-06	1.697E-08	4.737E-07	3.814E-07	1.779E-03	1.770E-03
T7 SWCV - TOT	35	1,739	0.0%		1.749E-07	1.540E-05	8.402E-07	1.852E-08	1.667E-07	9.886E-08	1.941E-03	1.931E-03
T7 tractor - TOT	120	19,234	0.1%		7.465E-07	1.298E-05	3.347E-06	1.681E-08	5.835E-07	4.823E-07	1.762E-03	1.753E-03
T7 tractor construction - TOT	27	2,060	0.0%		8.041E-07	1.360E-05	3.602E-06	1.697E-08	6.003E-07	4.978E-07	1.779E-03	1.770E-03
T7 utility - TOT	4	106	0.0%		6.508E-07	1.620E-05	3.125E-06	1.983E-08	3.682E-07	2.843E-07	2.078E-03	2.068E-03
T7IS - TOT	49	6,546	0.0%		2.517E-06	8.225E-06	5.911E-05	6.957E-09	4.745E-08	1.995E-08	5.967E-04	5.938E-04
UBUS - TOT	503	79,574	0.4%		8.823E-07	1.523E-05	5.153E-06	2.330E-08	1.057E-06	5.850E-07	2.433E-03	2.421E-03
		21,272,580	100.0%									

San Mateo 2012 Annual				2.000E+03	lbs/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	300	17,060	0%		1.214E-03	2.059E-02	3.686E-03	2.544E-05	1.126E-03	8.774E-04	2.666E+00	2.653E+00
LDA - TOT	337,155	12,222,158	57%		5.714E-04	5.007E-04	5.608E-03	7.673E-06	1.060E-04	4.579E-05	7.591E-01	7.214E-01
LDT1 - TOT	34,386	1,336,313	6%		1.177E-03	1.150E-03	1.245E-02	8.910E-06	1.133E-04	5.240E-05	8.711E-01	8.410E-01
LDT2 - TOT	94,406	3,770,122	18%		5.982E-04	8.831E-04	6.900E-03	1.043E-05	1.052E-04	4.514E-05	1.033E+00	1.002E+00
LHD1 - TOT	15,300	648,749	3%		1.539E-03	4.926E-03	1.274E-02	1.949E-05	1.644E-04	8.766E-05	1.943E+00	1.933E+00
LHD2 - TOT	2,164	90,971	0%		1.351E-03	6.555E-03	1.076E-02	1.670E-05	2.307E-04	1.291E-04	1.682E+00	1.673E+00
MCY - TOT	13,186	133,137	1%		9.702E-03	3.061E-03	8.130E-02	4.888E-06	1.033E-04	4.278E-05	3.365E-01	3.348E-01
MDV - TOT	63,061	2,526,906	12%		7.075E-04	1.220E-03	8.868E-03	1.319E-05	1.054E-04	4.530E-05	1.306E+00	1.275E+00
MH - TOT	1,593	20,799	0.1%		1.112E-03	5.579E-03	2.784E-02	1.700E-05	2.243E-04	1.375E-04	1.674E+00	1.666E+00
Motor Coach - TOT	118	17,187	0.1%		1.352E-03	2.799E-02	5.995E-03	3.836E-05	1.163E-03	9.111E-04	4.020E+00	4.000E+00
OBUS - TOT	298	19,095	0.1%		2.962E-03	7.352E-03	3.891E-02	1.636E-05	1.043E-04	4.404E-05	1.570E+00	1.562E+00
PTO - TOT	0	1,534	0.0%		1.833E-03	3.141E-02	8.702E-03	4.524E-05	1.093E-03	1.006E-03	4.742E+00	4.719E+00
SBUS - TOT	114	5,011	0.0%		3.209E-03	1.840E-02	3.596E-02	2.386E-05	1.385E-03	8.094E-04	2.402E+00	2.390E+00
T6 Ag - TOT	64	2,174	0.0%		1.584E-03	2.145E-02	4.665E-03	2.569E-05	1.312E-03	1.048E-03	2.692E+00	2.679E+00
T6 CAIRP heavy - TOT	2	144	0.0%		7.177E-04	1.452E-02	2.347E-03	2.527E-05	7.633E-04	5.433E-04	2.649E+00	2.636E+00
T6 CAIRP small - TOT	7	481	0.0%		5.984E-04	1.139E-02	2.041E-03	2.523E-05	6.929E-04	4.785E-04	2.645E+00	2.632E+00
T6 instate construction heavy - TOT	171	9,237	0.0%		1.159E-03	2.008E-02	3.553E-03	2.535E-05	1.028E-03	7.870E-04	2.657E+00	2.644E+00
T6 instate construction small - TOT	392	25,378	0.1%		8.299E-04	1.500E-02	2.693E-03	2.527E-05	8.424E-04	6.161E-04	2.649E+00	2.635E+00
T6 instate heavy - TOT	1,050	57,444	0.3%		1.128E-03	1.947E-02	3.462E-03	2.533E-05	1.006E-03	7.670E-04	2.655E+00	2.642E+00
T6 instate small - TOT	2,456	160,302	0.8%		7.999E-04	1.436E-02	2.601E-03	2.525E-05	8.196E-04	5.951E-04	2.647E+00	2.633E+00
T6 OOS heavy - TOT	1	82	0.0%		7.177E-04	1.452E-02	2.347E-03	2.527E-05	7.633E-04	5.433E-04	2.649E+00	2.636E+00
T6 OOS small - TOT	4	276	0.0%		5.984E-04	1.139E-02	2.041E-03	2.523E-05	6.929E-04	4.785E-04	2.645E+00	2.632E+00
T6 public - TOT	350	6,517	0.0%		6.933E-04	1.926E-02	2.336E-03	2.584E-05	8.251E-04	6.002E-04	2.708E+00	2.695E+00
T6 utility - TOT	56	1,095	0.0%		4.497E-04	1.583E-02	1.648E-03	2.578E-05	6.615E-04	4.496E-04	2.703E+00	2.689E+00
T6TS - TOT	913	47,474	0.2%		4.675E-03	9.251E-03	5.702E-02	1.659E-05	1.114E-04	5.023E-05	1.561E+00	1.553E+00
T7 Ag - TOT	13	889	0.0%		1.888E-03	3.446E-02	8.685E-03	3.767E-05	1.534E-03	1.291E-03	3.948E+00	3.929E+00
T7 CAIRP - TOT	45	10,528	0.0%		1.455E-03	2.278E-02	6.231E-03	3.816E-05	1.101E-03	8.926E-04	4.000E+00	3.980E+00
T7 CAIRP construction - TOT	5	1,068	0.0%		1.469E-03	2.311E-02	6.286E-03	3.816E-05	1.115E-03	9.054E-04	4.000E+00	3.980E+00
T7 NNOOS - TOT	45	11,844	0.1%		1.118E-03	1.448E-02	5.002E-03	3.876E-05	7.313E-04	5.527E-04	4.062E+00	4.042E+00
T7 NOOS - TOT	17	3,834	0.0%		1.487E-03	2.297E-02	6.312E-03	3.851E-05	1.100E-03	8.918E-04	4.037E+00	4.017E+00
T7 other port - TOT	7	1,147	0.0%		6.177E-04	3.664E-02	2.731E-03	3.782E-05	6.997E-04	5.236E-04	3.964E+00	3.944E+00
T7 POAK - TOT	31	4,580	0.0%		6.029E-04	3.962E-02	2.670E-03	3.840E-05	6.517E-04	4.795E-04	4.025E+00	4.005E+00
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	26	639	0.0%		2.331E-03	4.299E-02	1.009E-02	4.391E-05	1.357E-03	1.128E-03	4.602E+00	4.579E+00
T7 Single - TOT	85	6,385	0.0%		1.244E-03	2.890E-02	5.608E-03	3.742E-05	1.034E-03	8.309E-04	3.922E+00	3.902E+00
T7 single construction - TOT	37	2,763	0.0%		1.255E-03	2.929E-02	5.659E-03	3.742E-05	1.044E-03	8.408E-04	3.922E+00	3.903E+00
T7 SWCV - TOT	35	1,739	0.0%		3.856E-04	3.396E-02	1.852E-03	4.083E-05	3.674E-04	2.180E-04	4.279E+00	4.258E+00
T7 tractor - TOT	120	19,234	0.1%		1.646E-03	2.861E-02	7.379E-03	3.706E-05	1.286E-03	1.063E-03	3.885E+00	3.865E+00
T7 tractor construction - TOT	27	2,060	0.0%		1.773E-03	2.999E-02	7.941E-03	3.741E-05	1.323E-03	1.097E-03	3.922E+00	3.902E+00
T7 utility - TOT	4	106	0.0%		1.435E-03	3.571E-02	6.889E-03	4.371E-05	8.118E-04	6.268E-04	4.581E+00	4.558E+00
T7IS - TOT	49	6,546	0.0%		5.550E-03	1.813E-02	1.303E-01	1.534E-05	1.046E-04	4.399E-05	1.316E+00	1.309E+00
UBUS - TOT	503	79,574	0.4%		1.945E-03	3.358E-02	1.136E-02	5.137E-05	2.329E-03	1.290E-03	5.364E+00	5.337E+00
		21,272,580	100.0%									

San Mateo 2008 Annual				Tons/Day							
Veh & Tech	Pop	VMT	Percent of VMT	ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	283	16,620	0%	1.442E-02	2.082E-01	4.213E-02	2.113E-04	1.226E-02	9.961E-03	2.215E+01	2.215E+01
LDA - TOT	323,164	11,506,630	56%	5.645E+00	5.034E+00	5.479E+01	4.454E-02	6.475E-01	2.973E-01	4.366E+03	4.366E+03
LDT1 - TOT	33,351	1,290,489	6%	1.146E+00	1.151E+00	1.264E+01	5.819E-03	7.818E-02	3.821E-02	5.609E+02	5.609E+02
LDT2 - TOT	91,747	3,735,981	18%	1.432E+00	2.402E+00	1.743E+01	1.957E-02	2.026E-01	8.976E-02	1.931E+03	1.931E+03
LHD1 - TOT	14,836	679,376	3%	5.603E-01	1.870E+00	5.269E+00	6.623E-03	5.788E-02	3.161E-02	6.586E+02	6.586E+02
LHD2 - TOT	2,096	94,587	0%	8.167E-02	3.663E-01	7.581E-01	7.893E-04	1.159E-02	6.674E-03	7.906E+01	7.906E+01
MCY - TOT	12,776	118,466	1%	7.448E-01	1.968E-01	6.496E+00	2.872E-04	6.497E-03	2.824E-03	1.679E+01	1.679E+01
MDV - TOT	61,080	2,695,482	13%	9.338E-01	1.914E+00	1.312E+01	1.770E-02	1.438E-01	6.267E-02	1.751E+03	1.751E+03
MH - TOT	1,550	19,669	0.1%	2.152E-02	7.130E-02	5.495E-01	1.722E-04	2.402E-03	1.520E-03	1.650E+01	1.650E+01
Motor Coach - TOT	112	16,677	0.1%	1.642E-02	3.222E-01	7.039E-02	3.198E-04	1.160E-02	9.346E-03	3.352E+01	3.352E+01
OBUS - TOT	289	20,380	0.1%	3.359E-02	8.338E-02	4.357E-01	1.671E-04	1.087E-03	4.698E-04	1.596E+01	1.596E+01
PTO - TOT	0	1,461	0.0%	1.619E-03	2.759E-02	8.372E-03	3.317E-05	1.136E-03	1.045E-03	3.477E+00	3.477E+00
SBUS - TOT	118	5,167	0.0%	1.056E-02	5.431E-02	1.150E-01	6.294E-05	4.536E-03	2.919E-03	6.315E+00	6.315E+00
T6 Ag - TOT	65	2,369	0.0%	2.118E-03	2.936E-02	6.149E-03	3.045E-05	1.770E-03	1.440E-03	3.192E+00	3.192E+00
T6 CAIRP heavy - TOT	2	139	0.0%	6.894E-05	1.372E-03	2.163E-04	1.762E-06	7.227E-05	5.541E-05	1.846E-01	1.846E-01
T6 CAIRP small - TOT	7	485	0.0%	1.864E-04	4.353E-03	6.090E-04	6.118E-06	2.215E-04	1.652E-04	6.413E-01	6.413E-01
T6 instate construction heavy - TOT	169	9,828	0.0%	6.970E-03	1.124E-01	2.085E-02	1.248E-04	6.263E-03	4.981E-03	1.308E+01	1.308E+01
T6 instate construction small - TOT	428	29,345	0.1%	1.406E-02	2.916E-01	4.467E-02	3.703E-04	1.473E-02	1.122E-02	3.881E+01	3.881E+01
T6 instate heavy - TOT	963	56,107	0.3%	3.979E-02	6.416E-01	1.190E-01	7.122E-04	3.575E-02	2.844E-02	7.465E+01	7.465E+01
T6 instate small - TOT	2,445	167,524	0.8%	8.027E-02	1.665E+00	2.550E-01	2.114E-03	8.410E-02	6.406E-02	2.216E+02	2.216E+02
T6 OOS heavy - TOT	1	80	0.0%	3.953E-05	7.866E-04	1.240E-04	1.010E-06	4.143E-05	3.177E-05	1.059E-01	1.059E-01
T6 OOS small - TOT	4	278	0.0%	1.069E-04	2.495E-03	3.492E-04	3.508E-06	1.270E-04	9.473E-05	3.676E-01	3.676E-01
T6 public - TOT	340	6,481	0.0%	2.674E-03	7.382E-02	8.675E-03	8.386E-05	3.230E-03	2.457E-03	8.790E+00	8.790E+00
T6 utility - TOT	56	1,119	0.0%	2.853E-04	1.161E-02	1.009E-03	1.442E-05	4.322E-04	3.087E-04	1.511E+00	1.511E+00
T6TS - TOT	882	42,384	0.2%	1.582E-01	2.747E-01	1.774E+00	3.654E-04	2.581E-03	1.250E-03	3.343E+01	3.343E+01
T7 Ag - TOT	13	940	0.0%	1.064E-03	1.880E-02	4.914E-03	1.768E-05	8.549E-04	7.301E-04	1.853E+00	1.853E+00
T7 CAIRP - TOT	41	10,016	0.0%	9.473E-03	1.709E-01	3.823E-02	1.886E-04	6.858E-03	5.708E-03	1.977E+01	1.977E+01
T7 CAIRP construction - TOT	5	1,209	0.0%	1.143E-03	2.062E-02	4.613E-03	2.276E-05	8.277E-04	6.889E-04	2.386E+00	2.386E+00
T7 NNOOS - TOT	40	11,267	0.1%	7.857E-03	1.467E-01	3.210E-02	2.150E-04	5.995E-03	4.839E-03	2.254E+01	2.254E+01
T7 NOOS - TOT	15	3,647	0.0%	3.530E-03	6.246E-02	1.406E-02	6.913E-05	2.514E-03	2.094E-03	7.246E+00	7.246E+00
T7 other port - TOT	7	1,126	0.0%	1.511E-03	2.754E-02	6.358E-03	2.095E-05	8.360E-04	7.015E-04	2.196E+00	2.196E+00
T7 POAK - TOT	30	3,909	0.0%	5.554E-03	9.773E-02	2.375E-02	7.385E-05	3.042E-03	2.564E-03	7.740E+00	7.740E+00
T7 POLA - TOT	0	0	0.0%	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
T7 public - TOT	25	617	0.0%	8.205E-04	1.463E-02	3.425E-03	1.359E-05	4.983E-04	4.214E-04	1.424E+00	1.424E+00
T7 Single - TOT	77	6,074	0.0%	4.508E-03	1.055E-01	2.057E-02	1.136E-04	4.058E-03	3.369E-03	1.190E+01	1.190E+01
T7 single construction - TOT	39	3,127	0.0%	2.320E-03	5.430E-02	1.059E-02	5.846E-05	2.089E-03	1.734E-03	6.128E+00	6.128E+00
T7 SWCV - TOT	33	1,678	0.0%	1.477E-03	3.361E-02	6.677E-03	3.387E-05	1.114E-03	9.241E-04	3.550E+00	3.550E+00
T7 tractor - TOT	110	18,297	0.1%	1.913E-02	3.412E-01	8.493E-02	3.394E-04	1.418E-02	1.194E-02	3.558E+01	3.558E+01
T7 tractor construction - TOT	29	2,331	0.0%	2.527E-03	4.395E-02	1.124E-02	4.359E-05	1.837E-03	1.550E-03	4.569E+00	4.569E+00
T7 utility - TOT	4	105	0.0%	8.427E-05	2.290E-03	3.852E-04	2.289E-06	5.291E-05	4.239E-05	2.399E-01	2.399E-01
T7IS - TOT	53	7,378	0.0%	2.522E-02	7.057E-02	5.254E-01	5.754E-05	3.957E-04	1.701E-04	4.867E+00	4.867E+00
UBUS - TOT	489	77,409	0.4%	7.834E-02	1.353E+00	4.655E-01	2.003E-03	9.094E-02	5.069E-02	2.091E+02	2.091E+02
		20,666,256	100%								

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Veh & Tech	Pop	VMT	Percent of VMT
All Other Buses - TOT	283	16,620	0%
LDA - TOT	323,164	11,506,630	56%
LDT1 - TOT	33,351	1,290,489	6%
LDT2 - TOT	91,747	3,735,981	18%
LHD1 - TOT	14,836	679,376	3%
LHD2 - TOT	2,096	94,587	0%
MCY - TOT	12,776	118,466	1%
MDV - TOT	61,080	2,695,482	13%
MH - TOT	1,550	19,669	0.1%
Motor Coach - TOT	112	16,677	0.1%
OBUS - TOT	289	20,380	0.1%
PTO - TOT	0	1,461	0.0%
SBUS - TOT	118	5,167	0.0%
T6 Ag - TOT	65	2,369	0.0%
T6 CAIRP heavy - TOT	2	139	0.0%
T6 CAIRP small - TOT	7	485	0.0%
T6 instate construction heavy - TOT	169	9,828	0.0%
T6 instate construction small - TOT	428	29,345	0.1%
T6 instate heavy - TOT	963	56,107	0.3%
T6 instate small - TOT	2,445	167,524	0.8%
T6 OOS heavy - TOT	1	80	0.0%
T6 OOS small - TOT	4	278	0.0%
T6 public - TOT	340	6,481	0.0%
T6 utility - TOT	56	1,119	0.0%
T6TS - TOT	882	42,384	0.2%
T7 Ag - TOT	13	940	0.0%
T7 CAIRP - TOT	41	10,016	0.0%
T7 CAIRP construction - TOT	5	1,209	0.0%
T7 NNOOS - TOT	40	11,267	0.1%
T7 NOOS - TOT	15	3,647	0.0%
T7 other port - TOT	7	1,126	0.0%
T7 POAK - TOT	30	3,909	0.0%
T7 POLA - TOT	0	0	0.0%
T7 public - TOT	25	617	0.0%
T7 Single - TOT	77	6,074	0.0%
T7 single construction - TOT	39	3,127	0.0%
T7 SWCV - TOT	33	1,678	0.0%
T7 tractor - TOT	110	18,297	0.1%
T7 tractor construction - TOT	29	2,331	0.0%
T7 utility - TOT	4	105	0.0%
T7IS - TOT	53	7,378	0.0%
UBUS - TOT	489	77,409	0.4%
		20,666,256	100%

San Mateo 2008 Annual				9.072E-01	MTons/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	283	16,620	0%		7.873E-07	1.136E-05	2.300E-06	1.154E-08	6.694E-07	5.437E-07	1.209E-03	1.209E-03
LDA - TOT	323,164	11,506,630	56%		4.450E-07	3.969E-07	4.319E-06	3.512E-09	5.105E-08	2.344E-08	3.442E-04	3.442E-04
LDT1 - TOT	33,351	1,290,489	6%		8.053E-07	8.090E-07	8.882E-06	4.090E-09	5.496E-08	2.686E-08	3.943E-04	3.943E-04
LDT2 - TOT	91,747	3,735,981	18%		3.477E-07	5.832E-07	4.232E-06	4.753E-09	4.919E-08	2.180E-08	4.689E-04	4.689E-04
LHD1 - TOT	14,836	679,376	3%		7.482E-07	2.497E-06	7.036E-06	8.844E-09	7.729E-08	4.220E-08	8.795E-04	8.795E-04
LHD2 - TOT	2,096	94,587	0%		7.833E-07	3.513E-06	7.271E-06	7.570E-09	1.111E-07	6.401E-08	7.583E-04	7.583E-04
MCY - TOT	12,776	118,466	1%		5.704E-06	1.507E-06	4.974E-05	2.199E-09	4.975E-08	2.162E-08	1.286E-04	1.286E-04
MDV - TOT	61,080	2,695,482	13%		3.143E-07	6.440E-07	4.417E-06	5.959E-09	4.839E-08	2.109E-08	5.893E-04	5.893E-04
MH - TOT	1,550	19,669	0.1%		9.926E-07	3.288E-06	2.535E-05	7.941E-09	1.108E-07	7.012E-08	7.612E-04	7.612E-04
Motor Coach - TOT	112	16,677	0.1%		8.933E-07	1.752E-05	3.829E-06	1.740E-08	6.310E-07	5.084E-07	1.823E-03	1.823E-03
OBUS - TOT	289	20,380	0.1%		1.495E-06	3.711E-06	1.939E-05	7.438E-09	4.840E-08	2.091E-08	7.106E-04	7.106E-04
PTO - TOT	0	1,461	0.0%		1.005E-06	1.713E-05	5.199E-06	2.060E-08	7.052E-07	6.487E-07	2.159E-03	2.159E-03
SBUS - TOT	118	5,167	0.0%		1.854E-06	9.536E-06	2.020E-05	1.105E-08	7.964E-07	5.125E-07	1.109E-03	1.109E-03
T6 Ag - TOT	65	2,369	0.0%		8.108E-07	1.124E-05	2.354E-06	1.166E-08	6.779E-07	5.515E-07	1.222E-03	1.222E-03
T6 CAIRP heavy - TOT	2	139	0.0%		4.487E-07	8.929E-06	1.408E-06	1.146E-08	4.703E-07	3.606E-07	1.202E-03	1.202E-03
T6 CAIRP small - TOT	7	485	0.0%		3.486E-07	8.140E-06	1.139E-06	1.144E-08	4.143E-07	3.090E-07	1.199E-03	1.199E-03
T6 instate construction heavy - TOT	169	9,828	0.0%		6.434E-07	1.037E-05	1.924E-06	1.152E-08	5.781E-07	4.598E-07	1.207E-03	1.207E-03
T6 instate construction small - TOT	428	29,345	0.1%		4.347E-07	9.015E-06	1.381E-06	1.145E-08	4.554E-07	3.469E-07	1.200E-03	1.200E-03
T6 instate heavy - TOT	963	56,107	0.3%		6.434E-07	1.037E-05	1.924E-06	1.152E-08	5.781E-07	4.598E-07	1.207E-03	1.207E-03
T6 instate small - TOT	2,445	167,524	0.8%		4.347E-07	9.015E-06	1.381E-06	1.145E-08	4.554E-07	3.469E-07	1.200E-03	1.200E-03
T6 OOS heavy - TOT	1	80	0.0%		4.487E-07	8.929E-06	1.408E-06	1.146E-08	4.703E-07	3.606E-07	1.202E-03	1.202E-03
T6 OOS small - TOT	4	278	0.0%		3.486E-07	8.140E-06	1.139E-06	1.144E-08	4.143E-07	3.090E-07	1.199E-03	1.199E-03
T6 public - TOT	340	6,481	0.0%		3.743E-07	1.033E-05	1.214E-06	1.174E-08	4.522E-07	3.439E-07	1.230E-03	1.230E-03
T6 utility - TOT	56	1,119	0.0%		2.314E-07	9.412E-06	8.182E-07	1.169E-08	3.505E-07	2.503E-07	1.225E-03	1.225E-03
T6TS - TOT	882	42,384	0.2%		3.387E-06	5.880E-06	3.797E-05	7.822E-09	5.524E-08	2.676E-08	7.156E-04	7.156E-04
T7 Ag - TOT	13	940	0.0%		1.027E-06	1.814E-05	4.743E-06	1.707E-08	8.252E-07	7.047E-07	1.789E-03	1.789E-03
T7 CAIRP - TOT	41	10,016	0.0%		8.581E-07	1.548E-05	3.462E-06	1.708E-08	6.212E-07	5.171E-07	1.791E-03	1.791E-03
T7 CAIRP construction - TOT	5	1,209	0.0%		8.581E-07	1.548E-05	3.462E-06	1.708E-08	6.212E-07	5.171E-07	1.791E-03	1.791E-03
T7 NNOOS - TOT	40	11,267	0.1%		6.327E-07	1.181E-05	2.585E-06	1.731E-08	4.827E-07	3.896E-07	1.815E-03	1.815E-03
T7 NOOS - TOT	15	3,647	0.0%		8.779E-07	1.554E-05	3.498E-06	1.719E-08	6.252E-07	5.207E-07	1.802E-03	1.802E-03
T7 other port - TOT	7	1,126	0.0%		1.217E-06	2.218E-05	5.121E-06	1.688E-08	6.734E-07	5.650E-07	1.769E-03	1.769E-03
T7 POAK - TOT	30	3,909	0.0%		1.289E-06	2.268E-05	5.512E-06	1.714E-08	7.061E-07	5.951E-07	1.796E-03	1.796E-03
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	25	617	0.0%		1.207E-06	2.153E-05	5.040E-06	1.999E-08	7.332E-07	6.201E-07	2.095E-03	2.095E-03
T7 Single - TOT	77	6,074	0.0%		6.732E-07	1.576E-05	3.072E-06	1.696E-08	6.060E-07	5.031E-07	1.778E-03	1.778E-03
T7 single construction - TOT	39	3,127	0.0%		6.732E-07	1.576E-05	3.072E-06	1.696E-08	6.060E-07	5.031E-07	1.778E-03	1.778E-03
T7 SWCV - TOT	33	1,678	0.0%		7.984E-07	1.817E-05	3.610E-06	1.831E-08	6.022E-07	4.996E-07	1.919E-03	1.919E-03
T7 tractor - TOT	110	18,297	0.1%		9.486E-07	1.692E-05	4.211E-06	1.683E-08	7.029E-07	5.922E-07	1.764E-03	1.764E-03
T7 tractor construction - TOT	29	2,331	0.0%		9.832E-07	1.710E-05	4.376E-06	1.696E-08	7.150E-07	6.033E-07	1.778E-03	1.778E-03
T7 utility - TOT	4	105	0.0%		7.310E-07	1.987E-05	3.341E-06	1.986E-08	4.589E-07	3.677E-07	2.081E-03	2.081E-03
T7IS - TOT	53	7,378	0.0%		3.100E-06	8.677E-06	6.460E-05	7.074E-09	4.866E-08	2.092E-08	5.984E-04	5.984E-04
UBUS - TOT	489	77,409	0.4%		9.181E-07	1.586E-05	5.455E-06	2.347E-08	1.066E-06	5.940E-07	2.450E-03	2.450E-03
		20,666,256	100%									

San Mateo 2008 Annual				2.000E+03	lbs/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	283	16,620	0%		1.736E-03	2.505E-02	5.070E-03	2.543E-05	1.476E-03	1.199E-03	2.666E+00	2.666E+00
LDA - TOT	323,164	11,506,630	56%		9.811E-04	8.750E-04	9.523E-03	7.742E-06	1.125E-04	5.167E-05	7.589E-01	7.589E-01
LDT1 - TOT	33,351	1,290,489	6%		1.775E-03	1.784E-03	1.958E-02	9.018E-06	1.212E-04	5.922E-05	8.693E-01	8.693E-01
LDT2 - TOT	91,747	3,735,981	18%		7.666E-04	1.286E-03	9.329E-03	1.048E-05	1.084E-04	4.805E-05	1.034E+00	1.034E+00
LHD1 - TOT	14,836	679,376	3%		1.649E-03	5.505E-03	1.551E-02	1.950E-05	1.704E-04	9.304E-05	1.939E+00	1.939E+00
LHD2 - TOT	2,096	94,587	0%		1.727E-03	7.745E-03	1.603E-02	1.669E-05	2.450E-04	1.411E-04	1.672E+00	1.672E+00
MCY - TOT	12,776	118,466	1%		1.257E-02	3.322E-03	1.097E-01	4.848E-06	1.097E-04	4.767E-05	2.835E-01	2.835E-01
MDV - TOT	61,080	2,695,482	13%		6.929E-04	1.420E-03	9.738E-03	1.314E-05	1.067E-04	4.650E-05	1.299E+00	1.299E+00
MH - TOT	1,550	19,669	0.1%		2.188E-03	7.250E-03	5.588E-02	1.751E-05	2.442E-04	1.546E-04	1.678E+00	1.678E+00
Motor Coach - TOT	112	16,677	0.1%		1.969E-03	3.863E-02	8.441E-03	3.835E-05	1.391E-03	1.121E-03	4.020E+00	4.020E+00
OBUS - TOT	289	20,380	0.1%		3.297E-03	8.182E-03	4.276E-02	1.640E-05	1.067E-04	4.610E-05	1.567E+00	1.567E+00
PTO - TOT	0	1,461	0.0%		2.216E-03	3.777E-02	1.146E-02	4.542E-05	1.555E-03	1.430E-03	4.760E+00	4.760E+00
SBUS - TOT	118	5,167	0.0%		4.088E-03	2.102E-02	4.452E-02	2.436E-05	1.756E-03	1.130E-03	2.444E+00	2.444E+00
T6 Ag - TOT	65	2,369	0.0%		1.788E-03	2.479E-02	5.190E-03	2.571E-05	1.494E-03	1.216E-03	2.695E+00	2.695E+00
T6 CAIRP heavy - TOT	2	139	0.0%		9.891E-04	1.969E-02	3.104E-03	2.527E-05	1.037E-03	7.950E-04	2.649E+00	2.649E+00
T6 CAIRP small - TOT	7	485	0.0%		7.686E-04	1.795E-02	2.511E-03	2.522E-05	9.133E-04	6.813E-04	2.644E+00	2.644E+00
T6 instate construction heavy - TOT	169	9,828	0.0%		1.418E-03	2.287E-02	4.242E-03	2.539E-05	1.275E-03	1.014E-03	2.661E+00	2.661E+00
T6 instate construction small - TOT	428	29,345	0.1%		9.583E-04	1.988E-02	3.044E-03	2.524E-05	1.004E-03	7.648E-04	2.645E+00	2.645E+00
T6 instate heavy - TOT	963	56,107	0.3%		1.418E-03	2.287E-02	4.242E-03	2.539E-05	1.275E-03	1.014E-03	2.661E+00	2.661E+00
T6 instate small - TOT	2,445	167,524	0.8%		9.583E-04	1.988E-02	3.044E-03	2.524E-05	1.004E-03	7.648E-04	2.645E+00	2.645E+00
T6 OOS heavy - TOT	1	80	0.0%		9.891E-04	1.969E-02	3.104E-03	2.527E-05	1.037E-03	7.950E-04	2.649E+00	2.649E+00
T6 OOS small - TOT	4	278	0.0%		7.686E-04	1.795E-02	2.511E-03	2.522E-05	9.133E-04	6.813E-04	2.644E+00	2.644E+00
T6 public - TOT	340	6,481	0.0%		8.252E-04	2.278E-02	2.677E-03	2.588E-05	9.969E-04	7.582E-04	2.713E+00	2.713E+00
T6 utility - TOT	56	1,119	0.0%		5.101E-04	2.075E-02	1.804E-03	2.577E-05	7.727E-04	5.519E-04	2.701E+00	2.701E+00
T6TS - TOT	882	42,384	0.2%		7.466E-03	1.296E-02	8.372E-02	1.724E-05	1.218E-04	5.899E-05	1.578E+00	1.578E+00
T7 Ag - TOT	13	940	0.0%		2.265E-03	4.000E-02	1.046E-02	3.762E-05	1.819E-03	1.554E-03	3.944E+00	3.944E+00
T7 CAIRP - TOT	41	10,016	0.0%		1.892E-03	3.412E-02	7.633E-03	3.767E-05	1.370E-03	1.140E-03	3.948E+00	3.948E+00
T7 CAIRP construction - TOT	5	1,209	0.0%		1.892E-03	3.412E-02	7.633E-03	3.767E-05	1.370E-03	1.140E-03	3.948E+00	3.948E+00
T7 NNOOS - TOT	40	11,267	0.1%		1.395E-03	2.604E-02	5.699E-03	3.817E-05	1.064E-03	8.590E-04	4.001E+00	4.001E+00
T7 NOOS - TOT	15	3,647	0.0%		1.935E-03	3.425E-02	7.711E-03	3.791E-05	1.378E-03	1.148E-03	3.973E+00	3.973E+00
T7 other port - TOT	7	1,126	0.0%		2.682E-03	4.891E-02	1.129E-02	3.721E-05	1.485E-03	1.246E-03	3.900E+00	3.900E+00
T7 POAK - TOT	30	3,909	0.0%		2.842E-03	5.001E-02	1.215E-02	3.779E-05	1.557E-03	1.312E-03	3.961E+00	3.961E+00
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	25	617	0.0%		2.662E-03	4.746E-02	1.111E-02	4.407E-05	1.616E-03	1.367E-03	4.619E+00	4.619E+00
T7 Single - TOT	77	6,074	0.0%		1.484E-03	3.474E-02	6.772E-03	3.739E-05	1.336E-03	1.109E-03	3.919E+00	3.919E+00
T7 single construction - TOT	39	3,127	0.0%		1.484E-03	3.474E-02	6.772E-03	3.739E-05	1.336E-03	1.109E-03	3.919E+00	3.919E+00
T7 SWCV - TOT	33	1,678	0.0%		1.760E-03	4.007E-02	7.958E-03	4.036E-05	1.328E-03	1.101E-03	4.231E+00	4.231E+00
T7 tractor - TOT	110	18,297	0.1%		2.091E-03	3.730E-02	9.284E-03	3.710E-05	1.550E-03	1.306E-03	3.889E+00	3.889E+00
T7 tractor construction - TOT	29	2,331	0.0%		2.168E-03	3.771E-02	9.646E-03	3.740E-05	1.576E-03	1.330E-03	3.920E+00	3.920E+00
T7 utility - TOT	4	105	0.0%		1.612E-03	4.380E-02	7.365E-03	4.378E-05	1.012E-03	8.107E-04	4.588E+00	4.588E+00
T7IS - TOT	53	7,378	0.0%		6.835E-03	1.913E-02	1.424E-01	1.560E-05	1.073E-04	4.612E-05	1.319E+00	1.319E+00
UBUS - TOT	489	77,409	0.4%		2.024E-03	3.496E-02	1.203E-02	5.175E-05	2.350E-03	1.310E-03	5.402E+00	5.402E+00
		20,666,256	100%									

San Mateo 2005 Annual				Tons/Day							
Veh & Tech	Pop	VMT	Percent of VMT	ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	317	18,237	0%	1.941E-02	2.644E-01	5.341E-02	2.188E-03	1.588E-02	1.316E-02	2.457E+01	2.457E+01
LDA - TOT	313,281	11,089,978	55%	7.348E+00	6.921E+00	7.161E+01	4.453E-02	6.601E-01	3.196E-01	4.172E+03	4.172E+03
LDT1 - TOT	32,331	1,241,939	6%	1.408E+00	1.520E+00	1.624E+01	5.709E-03	7.939E-02	4.038E-02	5.338E+02	5.338E+02
LDT2 - TOT	88,941	3,678,526	18%	1.810E+00	3.232E+00	2.229E+01	1.928E-02	2.065E-01	9.471E-02	1.884E+03	1.884E+03
LHD1 - TOT	14,382	662,922	3%	6.947E-01	2.163E+00	7.114E+00	1.492E-02	6.171E-02	3.526E-02	6.353E+02	6.353E+02
LHD2 - TOT	2,032	90,291	0%	1.159E-01	3.905E-01	1.187E+00	2.741E-03	1.143E-02	6.877E-03	7.900E+01	7.900E+01
MCY - TOT	12,385	104,992	1%	8.076E-01	1.775E-01	6.518E+00	2.578E-04	6.279E-03	2.902E-03	1.388E+01	1.388E+01
MDV - TOT	59,212	2,761,547	14%	1.122E+00	2.502E+00	1.615E+01	1.793E-02	1.512E-01	6.775E-02	1.761E+03	1.761E+03
MH - TOT	1,503	19,189	0.1%	3.024E-02	7.354E-02	7.733E-01	4.059E-04	2.194E-03	1.382E-03	1.565E+01	1.565E+01
Motor Coach - TOT	125	18,701	0.1%	2.067E-02	4.208E-01	8.788E-02	3.344E-03	1.518E-02	1.248E-02	3.756E+01	3.756E+01
OBUS - TOT	280	19,569	0.1%	4.633E-02	1.051E-01	5.618E-01	1.639E-04	1.105E-03	5.029E-04	1.541E+01	1.541E+01
PTO - TOT	0	1,474	0.0%	2.077E-03	3.239E-02	1.198E-02	3.158E-04	1.713E-03	1.576E-03	3.546E+00	3.546E+00
SBUS - TOT	130	5,699	0.0%	1.289E-02	6.467E-02	1.494E-01	4.972E-04	5.461E-03	3.522E-03	7.179E+00	7.179E+00
T6 Ag - TOT	75	2,668	0.0%	2.787E-03	3.797E-02	7.742E-03	3.223E-04	2.329E-03	1.931E-03	3.620E+00	3.620E+00
T6 CAIRP heavy - TOT	2	147	0.0%	9.776E-05	1.882E-03	2.820E-04	1.740E-05	9.328E-05	7.412E-05	1.954E-01	1.954E-01
T6 CAIRP small - TOT	7	502	0.0%	2.517E-04	6.129E-03	7.575E-04	5.904E-05	2.674E-04	2.061E-04	6.630E-01	6.630E-01
T6 instate construction heavy - TOT	128	7,108	0.0%	6.826E-03	9.942E-02	1.891E-02	8.498E-04	5.795E-03	4.766E-03	9.544E+00	9.544E+00
T6 instate construction small - TOT	302	20,223	0.1%	1.263E-02	2.638E-01	3.703E-02	2.383E-03	1.212E-02	9.545E-03	2.677E+01	2.677E+01
T6 instate heavy - TOT	993	55,131	0.3%	5.295E-02	7.711E-01	1.467E-01	6.591E-03	4.495E-02	3.697E-02	7.402E+01	7.402E+01
T6 instate small - TOT	2,344	156,862	0.8%	9.799E-02	2.046E+00	2.872E-01	1.849E-02	9.403E-02	7.404E-02	2.076E+02	2.076E+02
T6 OOS heavy - TOT	1	84	0.0%	5.605E-05	1.079E-03	1.617E-04	9.973E-06	5.348E-05	4.250E-05	1.120E-01	1.120E-01
T6 OOS small - TOT	4	288	0.0%	1.443E-04	3.514E-03	4.343E-04	3.385E-05	1.533E-04	1.181E-04	3.801E-01	3.801E-01
T6 public - TOT	363	6,812	0.0%	3.833E-03	9.295E-02	1.141E-02	8.319E-04	4.220E-03	3.341E-03	9.343E+00	9.343E+00
T6 utility - TOT	53	1,072	0.0%	3.882E-04	1.353E-02	1.252E-03	1.287E-04	5.221E-04	3.952E-04	1.445E+00	1.445E+00
T6TS - TOT	855	41,743	0.2%	1.780E-01	2.827E-01	1.938E+00	3.644E-04	2.665E-03	1.337E-03	3.302E+01	3.302E+01
T7 Ag - TOT	15	1,097	0.0%	1.459E-03	2.439E-02	6.774E-03	1.952E-04	1.222E-03	1.058E-03	2.192E+00	2.192E+00
T7 CAIRP - TOT	43	10,109	0.1%	1.284E-02	2.417E-01	5.402E-02	1.850E-03	7.550E-03	6.339E-03	2.078E+01	2.078E+01
T7 CAIRP construction - TOT	3	818	0.0%	1.040E-03	1.957E-02	4.373E-03	1.498E-04	6.112E-04	5.132E-04	1.682E+00	1.682E+00
T7 NNOOS - TOT	42	11,372	0.1%	9.914E-03	2.167E-01	4.341E-02	2.093E-03	7.343E-03	6.073E-03	2.351E+01	2.351E+01
T7 NOOS - TOT	16	3,681	0.0%	4.880E-03	9.028E-02	2.059E-02	6.857E-04	2.781E-03	2.337E-03	7.701E+00	7.701E+00
T7 other port - TOT	8	1,244	0.0%	1.707E-03	2.989E-02	7.410E-03	2.145E-04	1.070E-03	9.098E-04	2.409E+00	2.409E+00
T7 POAK - TOT	34	3,873	0.0%	5.779E-03	9.579E-02	2.526E-02	6.821E-04	3.596E-03	3.076E-03	7.660E+00	7.660E+00
T7 POLA - TOT	0	0	0.0%	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
T7 public - TOT	27	672	0.0%	1.123E-03	1.697E-02	4.470E-03	1.399E-04	7.294E-04	6.308E-04	1.571E+00	1.571E+00
T7 Single - TOT	81	6,131	0.0%	6.011E-03	1.283E-01	2.813E-02	1.085E-03	5.533E-03	4.723E-03	1.219E+01	1.219E+01
T7 single construction - TOT	28	2,117	0.0%	2.076E-03	4.431E-02	9.712E-03	3.747E-04	1.911E-03	1.631E-03	4.208E+00	4.208E+00
T7 SWCV - TOT	36	1,828	0.0%	2.004E-03	4.232E-02	8.812E-03	3.476E-04	1.583E-03	1.347E-03	3.904E+00	3.904E+00
T7 tractor - TOT	111	18,468	0.1%	2.226E-02	3.974E-01	1.002E-01	3.207E-03	1.703E-02	1.456E-02	3.602E+01	3.602E+01
T7 tractor construction - TOT	20	1,578	0.0%	1.977E-03	3.415E-02	8.925E-03	2.768E-04	1.502E-03	1.287E-03	3.108E+00	3.108E+00
T7 utility - TOT	4	104	0.0%	1.158E-04	2.564E-03	4.947E-04	2.123E-05	7.385E-05	6.171E-05	2.384E-01	2.384E-01
T7IS - TOT	51	8,023	0.0%	2.705E-02	6.967E-02	5.382E-01	6.198E-05	4.347E-04	1.886E-04	5.288E+00	5.288E+00
UBUS - TOT	474	75,042	0.4%	8.231E-02	1.410E+00	5.097E-01	1.809E-02	9.175E-02	5.189E-02	2.066E+02	2.066E+02
		20,151,861	100%								

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Veh & Tech	Pop	VMT	Percent of VMT
All Other Buses - TOT	317	18,237	0%
LDA - TOT	313,281	11,089,978	55%
LDT1 - TOT	32,331	1,241,939	6%
LDT2 - TOT	88,941	3,678,526	18%
LHD1 - TOT	14,382	662,922	3%
LHD2 - TOT	2,032	90,291	0%
MCY - TOT	12,385	104,992	1%
MDV - TOT	59,212	2,761,547	14%
MH - TOT	1,503	19,189	0.1%
Motor Coach - TOT	125	18,701	0.1%
OBUS - TOT	280	19,569	0.1%
PTO - TOT	0	1,474	0.0%
SBUS - TOT	130	5,699	0.0%
T6 Ag - TOT	75	2,668	0.0%
T6 CAIRP heavy - TOT	2	147	0.0%
T6 CAIRP small - TOT	7	502	0.0%
T6 instate construction heavy - TOT	128	7,108	0.0%
T6 instate construction small - TOT	302	20,223	0.1%
T6 instate heavy - TOT	993	55,131	0.3%
T6 instate small - TOT	2,344	156,862	0.8%
T6 OOS heavy - TOT	1	84	0.0%
T6 OOS small - TOT	4	288	0.0%
T6 public - TOT	363	6,812	0.0%
T6 utility - TOT	53	1,072	0.0%
T6TS - TOT	855	41,743	0.2%
T7 Ag - TOT	15	1,097	0.0%
T7 CAIRP - TOT	43	10,109	0.1%
T7 CAIRP construction - TOT	3	818	0.0%
T7 NNOOS - TOT	42	11,372	0.1%
T7 NOOS - TOT	16	3,681	0.0%
T7 other port - TOT	8	1,244	0.0%
T7 POAK - TOT	34	3,873	0.0%
T7 POLA - TOT	0	0	0.0%
T7 public - TOT	27	672	0.0%
T7 Single - TOT	81	6,131	0.0%
T7 single construction - TOT	28	2,117	0.0%
T7 SWCV - TOT	36	1,828	0.0%
T7 tractor - TOT	111	18,468	0.1%
T7 tractor construction - TOT	20	1,578	0.0%
T7 utility - TOT	4	104	0.0%
T7IS - TOT	51	8,023	0.0%
UBUS - TOT	474	75,042	0.4%
		20,151,861	100%

San Mateo 2005 Annual				9.072E-01	MTons/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	317	18,237	0%		9.657E-07	1.315E-05	2.657E-06	1.088E-07	7.898E-07	6.545E-07	1.222E-03	1.222E-03
LDA - TOT	313,281	11,089,978	55%		6.011E-07	5.661E-07	5.858E-06	3.643E-09	5.400E-08	2.615E-08	3.412E-04	3.412E-04
LDT1 - TOT	32,331	1,241,939	6%		1.029E-06	1.110E-06	1.186E-05	4.170E-09	5.799E-08	2.949E-08	3.899E-04	3.899E-04
LDT2 - TOT	88,941	3,678,526	18%		4.465E-07	7.970E-07	5.497E-06	4.754E-09	5.092E-08	2.336E-08	4.647E-04	4.647E-04
LHD1 - TOT	14,382	662,922	3%		9.507E-07	2.959E-06	9.736E-06	2.042E-08	8.445E-08	4.825E-08	8.694E-04	8.694E-04
LHD2 - TOT	2,032	90,291	0%		1.165E-06	3.923E-06	1.192E-05	2.754E-08	1.148E-07	6.910E-08	7.938E-04	7.938E-04
MCY - TOT	12,385	104,992	1%		6.978E-06	1.534E-06	5.632E-05	2.227E-09	5.426E-08	2.507E-08	1.199E-04	1.199E-04
MDV - TOT	59,212	2,761,547	14%		3.686E-07	8.220E-07	5.304E-06	5.889E-09	4.967E-08	2.226E-08	5.784E-04	5.784E-04
MH - TOT	1,503	19,189	0.1%		1.430E-06	3.477E-06	3.656E-05	1.919E-08	1.037E-07	6.533E-08	7.398E-04	7.398E-04
Motor Coach - TOT	125	18,701	0.1%		1.003E-06	2.041E-05	4.263E-06	1.622E-07	7.363E-07	6.053E-07	1.822E-03	1.822E-03
OBUS - TOT	280	19,569	0.1%		2.148E-06	4.874E-06	2.605E-05	7.596E-09	5.122E-08	2.331E-08	7.143E-04	7.143E-04
PTO - TOT	0	1,474	0.0%		1.278E-06	1.994E-05	7.374E-06	1.944E-07	1.055E-06	9.704E-07	2.183E-03	2.183E-03
SBUS - TOT	130	5,699	0.0%		2.052E-06	1.029E-05	2.378E-05	7.914E-08	8.693E-07	5.607E-07	1.143E-03	1.143E-03
T6 Ag - TOT	75	2,668	0.0%		9.476E-07	1.291E-05	2.632E-06	1.096E-07	7.920E-07	6.565E-07	1.231E-03	1.231E-03
T6 CAIRP heavy - TOT	2	147	0.0%		6.027E-07	1.160E-05	1.739E-06	1.073E-07	5.751E-07	4.570E-07	1.204E-03	1.204E-03
T6 CAIRP small - TOT	7	502	0.0%		4.544E-07	1.107E-05	1.368E-06	1.066E-07	4.828E-07	3.721E-07	1.197E-03	1.197E-03
T6 instate construction heavy - TOT	128	7,108	0.0%		8.713E-07	1.269E-05	2.414E-06	1.085E-07	7.396E-07	6.083E-07	1.218E-03	1.218E-03
T6 instate construction small - TOT	302	20,223	0.1%		5.667E-07	1.183E-05	1.661E-06	1.069E-07	5.438E-07	4.282E-07	1.201E-03	1.201E-03
T6 instate heavy - TOT	993	55,131	0.3%		8.713E-07	1.269E-05	2.414E-06	1.085E-07	7.396E-07	6.083E-07	1.218E-03	1.218E-03
T6 instate small - TOT	2,344	156,862	0.8%		5.667E-07	1.183E-05	1.661E-06	1.069E-07	5.438E-07	4.282E-07	1.201E-03	1.201E-03
T6 OOS heavy - TOT	1	84	0.0%		6.027E-07	1.160E-05	1.739E-06	1.073E-07	5.751E-07	4.570E-07	1.204E-03	1.204E-03
T6 OOS small - TOT	4	288	0.0%		4.544E-07	1.107E-05	1.368E-06	1.066E-07	4.828E-07	3.721E-07	1.197E-03	1.197E-03
T6 public - TOT	363	6,812	0.0%		5.105E-07	1.238E-05	1.520E-06	1.108E-07	5.620E-07	4.450E-07	1.244E-03	1.244E-03
T6 utility - TOT	53	1,072	0.0%		3.286E-07	1.145E-05	1.060E-06	1.089E-07	4.420E-07	3.345E-07	1.224E-03	1.224E-03
T6TS - TOT	855	41,743	0.2%		3.869E-06	6.143E-06	4.212E-05	7.919E-09	5.793E-08	2.906E-08	7.176E-04	7.176E-04
T7 Ag - TOT	15	1,097	0.0%		1.207E-06	2.018E-05	5.604E-06	1.615E-07	1.011E-06	8.755E-07	1.813E-03	1.813E-03
T7 CAIRP - TOT	43	10,109	0.1%		1.153E-06	2.169E-05	4.848E-06	1.660E-07	6.776E-07	5.689E-07	1.864E-03	1.864E-03
T7 CAIRP construction - TOT	3	818	0.0%		1.153E-06	2.169E-05	4.848E-06	1.660E-07	6.776E-07	5.689E-07	1.864E-03	1.864E-03
T7 NNOOS - TOT	42	11,372	0.1%		7.909E-07	1.729E-05	3.463E-06	1.670E-07	5.858E-07	4.845E-07	1.875E-03	1.875E-03
T7 NOOS - TOT	16	3,681	0.0%		1.202E-06	2.225E-05	5.075E-06	1.690E-07	6.852E-07	5.759E-07	1.898E-03	1.898E-03
T7 other port - TOT	8	1,244	0.0%		1.245E-06	2.180E-05	5.405E-06	1.564E-07	7.804E-07	6.635E-07	1.757E-03	1.757E-03
T7 POAK - TOT	34	3,873	0.0%		1.354E-06	2.244E-05	5.917E-06	1.598E-07	8.423E-07	7.204E-07	1.794E-03	1.794E-03
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	27	672	0.0%		1.518E-06	2.292E-05	6.038E-06	1.890E-07	9.854E-07	8.521E-07	2.123E-03	2.123E-03
T7 Single - TOT	81	6,131	0.0%		8.895E-07	1.899E-05	4.162E-06	1.606E-07	8.187E-07	6.988E-07	1.803E-03	1.803E-03
T7 single construction - TOT	28	2,117	0.0%		8.895E-07	1.899E-05	4.162E-06	1.606E-07	8.187E-07	6.988E-07	1.803E-03	1.803E-03
T7 SWCV - TOT	36	1,828	0.0%		9.945E-07	2.101E-05	4.374E-06	1.725E-07	7.859E-07	6.686E-07	1.938E-03	1.938E-03
T7 tractor - TOT	111	18,468	0.1%		1.094E-06	1.952E-05	4.924E-06	1.575E-07	8.364E-07	7.150E-07	1.769E-03	1.769E-03
T7 tractor construction - TOT	20	1,578	0.0%		1.137E-06	1.963E-05	5.130E-06	1.591E-07	8.634E-07	7.398E-07	1.787E-03	1.787E-03
T7 utility - TOT	4	104	0.0%		1.011E-06	2.240E-05	4.322E-06	1.855E-07	6.453E-07	5.392E-07	2.083E-03	2.083E-03
T7IS - TOT	51	8,023	0.0%		3.058E-06	7.877E-06	6.086E-05	7.008E-09	4.915E-08	2.133E-08	5.979E-04	5.979E-04
UBUS - TOT	474	75,042	0.4%		9.951E-07	1.704E-05	6.162E-06	2.187E-07	1.109E-06	6.272E-07	2.498E-03	2.498E-03
		20,151,861	100%									

San Mateo 2005 Annual				2.000E+03	lbs/Mile							
Veh & Tech	Pop	VMT	Percent of VMT		ROG_TOTAL	NOx_TOTEX	CO_TOTEX	SOx_TOTEX	PM10_TOTAL	PM2_5_TOTAL	CO2_TOTEX	CO2_TOTEX (Pavley I + LCFS)
All Other Buses - TOT	317	18,237	0%		2.129E-03	2.900E-02	5.857E-03	2.399E-04	1.741E-03	1.443E-03	2.695E+00	2.695E+00
LDA - TOT	313,281	11,089,978	55%		1.325E-03	1.248E-03	1.291E-02	8.031E-06	1.190E-04	5.764E-05	7.523E-01	7.523E-01
LDT1 - TOT	32,331	1,241,939	6%		2.268E-03	2.448E-03	2.615E-02	9.194E-06	1.279E-04	6.502E-05	8.596E-01	8.596E-01
LDT2 - TOT	88,941	3,678,526	18%		9.843E-04	1.757E-03	1.212E-02	1.048E-05	1.123E-04	5.150E-05	1.024E+00	1.024E+00
LHD1 - TOT	14,382	662,922	3%		2.096E-03	6.524E-03	2.146E-02	4.502E-05	1.862E-04	1.064E-04	1.917E+00	1.917E+00
LHD2 - TOT	2,032	90,291	0%		2.568E-03	8.649E-03	2.628E-02	6.071E-05	2.532E-04	1.523E-04	1.750E+00	1.750E+00
MCY - TOT	12,385	104,992	1%		1.538E-02	3.381E-03	1.242E-01	4.911E-06	1.196E-04	5.528E-05	2.644E-01	2.644E-01
MDV - TOT	59,212	2,761,547	14%		8.125E-04	1.812E-03	1.169E-02	1.298E-05	1.095E-04	4.907E-05	1.275E+00	1.275E+00
MH - TOT	1,503	19,189	0.1%		3.152E-03	7.665E-03	8.060E-02	4.231E-05	2.287E-04	1.440E-04	1.631E+00	1.631E+00
Motor Coach - TOT	125	18,701	0.1%		2.210E-03	4.500E-02	9.399E-03	3.576E-04	1.623E-03	1.334E-03	4.016E+00	4.016E+00
OBUS - TOT	280	19,569	0.1%		4.735E-03	1.075E-02	5.742E-02	1.675E-05	1.129E-04	5.139E-05	1.575E+00	1.575E+00
PTO - TOT	0	1,474	0.0%		2.818E-03	4.397E-02	1.626E-02	4.286E-04	2.325E-03	2.139E-03	4.813E+00	4.813E+00
SBUS - TOT	130	5,699	0.0%		4.525E-03	2.270E-02	5.243E-02	1.745E-04	1.916E-03	1.236E-03	2.519E+00	2.519E+00
T6 Ag - TOT	75	2,668	0.0%		2.089E-03	2.847E-02	5.804E-03	2.416E-04	1.746E-03	1.447E-03	2.713E+00	2.713E+00
T6 CAIRP heavy - TOT	2	147	0.0%		1.329E-03	2.558E-02	3.833E-03	2.364E-04	1.268E-03	1.007E-03	2.655E+00	2.655E+00
T6 CAIRP small - TOT	7	502	0.0%		1.002E-03	2.440E-02	3.015E-03	2.350E-04	1.064E-03	8.203E-04	2.639E+00	2.639E+00
T6 instate construction heavy - TOT	128	7,108	0.0%		1.921E-03	2.797E-02	5.321E-03	2.391E-04	1.630E-03	1.341E-03	2.685E+00	2.685E+00
T6 instate construction small - TOT	302	20,223	0.1%		1.249E-03	2.608E-02	3.662E-03	2.357E-04	1.199E-03	9.440E-04	2.647E+00	2.647E+00
T6 instate heavy - TOT	993	55,131	0.3%		1.921E-03	2.797E-02	5.321E-03	2.391E-04	1.630E-03	1.341E-03	2.685E+00	2.685E+00
T6 instate small - TOT	2,344	156,862	0.8%		1.249E-03	2.608E-02	3.662E-03	2.357E-04	1.199E-03	9.440E-04	2.647E+00	2.647E+00
T6 OOS heavy - TOT	1	84	0.0%		1.329E-03	2.558E-02	3.833E-03	2.364E-04	1.268E-03	1.007E-03	2.655E+00	2.655E+00
T6 OOS small - TOT	4	288	0.0%		1.002E-03	2.440E-02	3.015E-03	2.350E-04	1.064E-03	8.203E-04	2.639E+00	2.639E+00
T6 public - TOT	363	6,812	0.0%		1.125E-03	2.729E-02	3.351E-03	2.443E-04	1.239E-03	9.810E-04	2.743E+00	2.743E+00
T6 utility - TOT	53	1,072	0.0%		7.244E-04	2.524E-02	2.336E-03	2.402E-04	9.744E-04	7.375E-04	2.697E+00	2.697E+00
T6TS - TOT	855	41,743	0.2%		8.530E-03	1.354E-02	9.285E-02	1.746E-05	1.277E-04	6.406E-05	1.582E+00	1.582E+00
T7 Ag - TOT	15	1,097	0.0%		2.660E-03	4.449E-02	1.235E-02	3.560E-04	2.228E-03	1.930E-03	3.998E+00	3.998E+00
T7 CAIRP - TOT	43	10,109	0.1%		2.541E-03	4.782E-02	1.069E-02	3.660E-04	1.494E-03	1.254E-03	4.110E+00	4.110E+00
T7 CAIRP construction - TOT	3	818	0.0%		2.541E-03	4.782E-02	1.069E-02	3.660E-04	1.494E-03	1.254E-03	4.110E+00	4.110E+00
T7 NNOOS - TOT	42	11,372	0.1%		1.744E-03	3.811E-02	7.635E-03	3.682E-04	1.291E-03	1.068E-03	4.135E+00	4.135E+00
T7 NOOS - TOT	16	3,681	0.0%		2.651E-03	4.905E-02	1.119E-02	3.725E-04	1.511E-03	1.270E-03	4.184E+00	4.184E+00
T7 other port - TOT	8	1,244	0.0%		2.744E-03	4.806E-02	1.192E-02	3.448E-04	1.721E-03	1.463E-03	3.873E+00	3.873E+00
T7 POAK - TOT	34	3,873	0.0%		2.984E-03	4.947E-02	1.304E-02	3.522E-04	1.857E-03	1.588E-03	3.955E+00	3.955E+00
T7 POLA - TOT	0	0	0.0%									
T7 public - TOT	27	672	0.0%		3.346E-03	5.053E-02	1.331E-02	4.167E-04	2.172E-03	1.878E-03	4.680E+00	4.680E+00
T7 Single - TOT	81	6,131	0.0%		1.961E-03	4.186E-02	9.176E-03	3.540E-04	1.805E-03	1.541E-03	3.976E+00	3.976E+00
T7 single construction - TOT	28	2,117	0.0%		1.961E-03	4.186E-02	9.176E-03	3.540E-04	1.805E-03	1.541E-03	3.976E+00	3.976E+00
T7 SWCV - TOT	36	1,828	0.0%		2.192E-03	4.631E-02	9.643E-03	3.804E-04	1.733E-03	1.474E-03	4.272E+00	4.272E+00
T7 tractor - TOT	111	18,468	0.1%		2.411E-03	4.303E-02	1.086E-02	3.473E-04	1.844E-03	1.576E-03	3.901E+00	3.901E+00
T7 tractor construction - TOT	20	1,578	0.0%		2.506E-03	4.327E-02	1.131E-02	3.507E-04	1.903E-03	1.631E-03	3.939E+00	3.939E+00
T7 utility - TOT	4	104	0.0%		2.230E-03	4.939E-02	9.529E-03	4.089E-04	1.423E-03	1.189E-03	4.592E+00	4.592E+00
T7IS - TOT	51	8,023	0.0%		6.742E-03	1.737E-02	1.342E-01	1.545E-05	1.084E-04	4.703E-05	1.318E+00	1.318E+00
UBUS - TOT	474	75,042	0.4%		2.194E-03	3.757E-02	1.359E-02	4.822E-04	2.445E-03	1.383E-03	5.507E+00	5.507E+00
		20,151,861	100%									

OTHER SOURCES – OFFROAD2007

CRITERIA AIR POLLUTANTS & GREENHOUSE GAS EMISSIONS

Area Sources - Criteria Air Pollutants

2012	ROG Exhaust	NO_x Exhaust	CO Exhaust	SO_2 Exhaust	PM_{10} Exhaust	$PM_{2.5}$ Exhaust*
			lbs/day			
Construction Equipment	118	791	757	1	51	50
Lawn & Garden Equipment	90	24	1,171	0	3	3
Light Commercial Equipment	65	126	1,739	0	13	13
TOTAL	274	940	3,667	1	67	66

2035	ROG Exhaust	NO_x Exhaust	CO Exhaust	SO2 Exhaust	PM10 Exhaust	PM2.5 Exhaust*
			lbs/day			
Construction Equipment	139	928	889	1	60	59
Lawn & Garden Equipment	107	28	1,383	0	4	4
Light Commercial Equipment	76	146	2,026	0	15	15
TOTAL	322	1,103	4,297	1	79	78

* assumes PM2.5 is 99 percent of PM10

Other Emissions Sources - Off-road Equipment

Source: OFFROAD2007. Based on equipment use in San Mateo County.

Year 2012 BAU	2012 MTons of CO_2e	Notes
Construction Equipment	2,450	Based on the percentage of residential building permits issued in Menlo Park compared to San Mateo County.
Lawn & Garden Equipment	709	Based on the percentage of residential units in Menlo Park compared to San Mateo County.
Light Commercial Equipment	13,447	Based on the percentage of employment in Menlo Park compared to San Mateo County.
TOTAL	16,606	

Year 2020 BAU	2020 MTons of CO_2e	Notes
Construction Equipment	2,607	similar to historic
Lawn & Garden Equipment	759	proportional to population growth
Light Commercial Equipment	14,219	proportional to employment growth
TOTAL	17,585	

Year 2035 BAU	2035 MTons of CO_2e	Notes
Construction Equipment	2,876	similar to historic
Lawn & Garden Equipment	838	proportional to population growth
Light Commercial Equipment	15,668	proportional to employment growth
TOTAL	19,382	

Adjusted Business as Usual - Low Carbon Fuel Standard

On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Night Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

Year 2020 Adjusted	2020 MTons of CO_2e	Notes
Construction Equipment	2,346	With LCFS (10% reduction)
Lawn&Garden Equipment	683	With LCFS (10% reduction)
Light Commercial Equipment	12,797	With LCFS (10% reduction)
TOTAL	15,826	
reduction	1,758	

Year 2035 Adjusted	2035MTons of CO_2e	Notes
Construction Equipment	2,588	With LCFS (10% reduction)
Lawn&Garden Equipment	754	With LCFS (10% reduction)
Light Commercial Equipment	14,101	With LCFS (10% reduction)
TOTAL	17,443	
reduction	1,938	

Construction

					Tons/Day											MTons/Year
Equipment	**Fuel**	**MaxHP**	**MY**	**Population**	**Activity**	**Consumption**	**ROG Exhaust**	**NOX Exhaust**	**CO Exhaust**	**SO2 Exhaust**	**PM Exhaust**	**CO2 Exhaust**	**N2O Exhaust**	**CH4 Exhaust**	**CO2e**	**CO2e**
Tampers/Rammers	G2	15		8.16E+01	4.07E+01	8.21E+00	5.17E-04	4.05E-04	2.22E-02	1.75E-06	3.56E-04	4.24E-02	6.33E-05	3.21E-05	6.27E-02	20
Plate Compactors	G2	15		7.00E+00	3.95E+00	7.97E-01	5.01E-05	3.93E-05	2.15E-03	1.70E-07	3.45E-05	4.12E-03	6.15E-06	3.11E-06	6.09E-03	2
Asphalt Pavers	G4	15		1.78E+00	1.93E+00	1.16E+00	8.96E-05	6.52E-05	3.46E-03	1.55E-07	4.55E-05	5.43E-03	5.53E-06	4.79E-06	7.25E-03	2
Asphalt Pavers	G4	25		3.04E+00	3.30E+00	5.01E+00	3.96E-04	2.52E-04	1.54E-02	5.76E-07	1.90E-04	2.27E-02	1.46E-05	2.11E-05	2.77E-02	9
Asphalt Pavers	G4	50		1.55E+00	1.67E+00	3.94E+00	1.53E-04	2.20E-04	4.49E-03	3.70E-07	2.33E-06	3.04E-02	9.25E-06	8.15E-06	3.35E-02	11
Asphalt Pavers	G4	120		8.53E-01	9.17E-01	3.61E+00	1.04E-04	3.08E-04	1.89E-03	3.04E-07	2.44E-06	3.15E-02	7.92E-06	5.55E-06	3.41E-02	11
Tampers/Rammers	G4	15		3.77E+00	1.88E+00	9.48E-01	7.47E-05	5.15E-05	2.84E-03	1.26E-07	3.69E-05	4.40E-03	4.80E-06	3.99E-06	5.98E-03	2
Plate Compactors	G4	5		1.38E+02	6.82E+01	1.28E+01	1.85E-03	8.17E-04	2.86E-02	2.45E-06	2.32E-05	7.11E-02	1.12E-04	9.89E-05	1.08E-01	34
Plate Compactors	G4	15		1.47E+02	8.28E+01	3.69E+01	2.84E-03	2.04E-03	1.10E-01	4.92E-06	1.45E-03	1.73E-01	2.00E-04	1.52E-04	2.38E-01	75
Rollers	G4	5		1.54E+01	3.50E+00	9.79E-01	1.20E-04	5.31E-05	2.45E-03	1.78E-07	1.68E-06	5.14E-03	6.53E-06	6.42E-06	7.30E-03	2
Rollers	G4	15		2.49E+01	2.12E+01	1.20E+01	9.13E-04	6.65E-04	3.56E-02	1.59E-06	4.69E-04	5.59E-02	5.83E-05	4.88E-05	7.50E-02	24
Rollers	G4	25		1.68E+01	1.43E+01	1.76E+01	1.37E-03	8.76E-04	5.38E-02	2.02E-06	6.68E-04	7.97E-02	5.62E-05	7.34E-05	9.87E-02	31
Rollers	G4	50		1.09E+00	1.86E+00	5.04E+00	2.44E-04	3.00E-04	6.90E-03	4.48E-07	2.83E-06	3.69E-02	1.17E-05	1.30E-05	4.08E-02	13
Rollers	G4	120		2.06E+00	3.50E+00	1.64E+01	6.11E-04	1.51E-03	1.07E-02	1.34E-06	1.08E-05	1.39E-01	3.55E-05	3.26E-05	1.51E-01	47
Paving Equipment	G4	5		1.93E+02	9.02E+01	1.82E+01	2.60E-03	1.15E-03	4.11E-02	3.48E-06	3.28E-05	1.01E-01	1.53E-04	1.39E-04	1.51E-01	48
Paving Equipment	G4	15		3.27E+02	1.79E+02	1.07E+02	8.25E-03	5.91E-03	3.20E-01	1.43E-05	4.20E-03	5.01E-01	5.06E-04	4.41E-04	6.67E-01	210
Paving Equipment	G4	25		7.27E+00	3.99E+00	5.41E+00	4.24E-04	2.67E-04	1.66E-02	6.21E-07	2.05E-04	2.45E-02	1.64E-05	2.27E-05	3.01E-02	9
Paving Equipment	G4	50		4.24E+00	2.04E+00	4.65E+00	1.06E-04	1.79E-04	3.90E-03	4.67E-07	2.94E-06	3.84E-02	8.85E-06	5.64E-06	4.12E-02	13
Paving Equipment	G4	120		1.09E+00	5.25E-01	1.92E+00	2.87E-05	1.01E-04	6.23E-04	1.69E-07	1.35E-06	1.74E-02	3.16E-06	1.53E-06	1.85E-02	6
Surfacing Equipment	G4	5		3.55E+01	1.95E+01	4.02E+00	5.97E-04	2.64E-04	8.87E-03	7.80E-07	7.36E-06	2.26E-02	3.42E-05	3.19E-05	3.39E-02	11
Surfacing Equipment	G4	15		1.06E+02	1.46E+02	5.78E+01	4.63E-03	3.37E-03	1.72E-01	7.70E-06	2.26E-03	2.70E-01	3.41E-04	2.47E-04	3.81E-01	120
Surfacing Equipment	G4	25		1.44E+00	1.99E+00	1.94E+00	1.59E-04	1.01E-04	5.94E-03	2.23E-07	7.36E-05	8.78E-03	7.09E-06	8.48E-06	1.12E-02	4
Signal Boards	G4	5		4.38E-01	1.56E-01	5.23E-02	6.87E-06	3.04E-06	1.26E-04	9.71E-09	9.17E-08	2.81E-04	3.33E-07	3.67E-07	3.92E-04	0
Signal Boards	G4	15		3.12E+00	2.43E+00	1.49E+00	1.13E-04	8.26E-05	4.45E-03	1.99E-07	5.86E-05	6.99E-03	6.98E-06	6.06E-06	9.28E-03	3
Trenchers	G4	15		2.89E+01	3.43E+01	2.30E+01	1.80E-03	1.31E-03	6.84E-02	3.06E-06	9.00E-04	1.07E-01	1.05E-04	9.59E-05	1.42E-01	45
Trenchers	G4	25		2.24E+01	2.66E+01	3.85E+01	3.09E-03	1.97E-03	1.18E-01	4.42E-06	1.46E-03	1.75E-01	1.16E-04	1.65E-04	2.14E-01	67
Trenchers	G4	50		9.95E+00	1.10E+01	2.46E+01	1.03E-03	1.45E-03	2.92E-02	2.28E-06	1.44E-05	1.88E-01	6.15E-05	5.48E-05	2.08E-01	65
Trenchers	G4	120		3.30E+00	3.64E+00	1.56E+01	4.92E-04	1.42E-03	8.72E-03	1.31E-06	1.05E-05	1.35E-01	3.48E-05	2.63E-05	1.47E-01	46
Bore/Drill Rigs	G4	15		8.25E-01	2.81E-01	2.26E-01	1.72E-05	1.18E-05	6.76E-04	2.99E-08	8.80E-06	1.05E-03	9.02E-07	9.20E-07	1.35E-03	0
Bore/Drill Rigs	G4	25		4.10E+00	1.39E+00	2.08E+00	1.60E-04	9.76E-05	6.39E-03	2.38E-07	7.87E-05	9.39E-03	5.87E-06	8.56E-06	1.14E-02	4
Bore/Drill Rigs	G4	50		4.81E-01	1.41E-01	3.81E-01	1.22E-05	2.21E-05	3.52E-04	3.75E-08	2.36E-07	3.08E-03	8.52E-07	6.52E-07	3.36E-03	1
Bore/Drill Rigs	G4	120		2.21E+00	6.48E-01	4.32E+00	1.00E-04	3.88E-04	1.83E-03	3.72E-07	2.98E-06	3.85E-02	7.68E-06	5.37E-06	4.10E-02	13
Bore/Drill Rigs	G4	175		5.47E-01	1.60E-01	1.46E+00	2.00E-05	1.52E-04	4.56E-04	1.32E-07	1.06E-06	1.33E-02	2.42E-06	1.07E-06	1.40E-02	4
Concrete/Industrial Saws	G4	5		1.51E+01	5.40E+00	1.48E+00	1.95E-04	8.61E-05	3.56E-03	2.75E-07	2.60E-06	7.97E-03	1.03E-05	1.04E-05	1.14E-02	4
Concrete/Industrial Saws	G4	15		6.81E+01	5.79E+01	4.11E+01	3.14E-03	2.29E-03	1.22E-01	5.48E-06	1.61E-03	1.92E-01	1.80E-04	1.68E-04	2.52E-01	79
Concrete/Industrial Saws	G4	25		2.13E+01	1.81E+01	2.51E+01	1.96E-03	1.25E-03	7.68E-02	2.88E-06	9.53E-04	1.14E-01	7.58E-05	1.05E-04	1.39E-01	44
Concrete/Industrial Saws	G4	50		1.79E+00	3.00E+00	8.39E+00	9.21E-05	1.33E-04	6.32E-03	8.60E-07	5.42E-06	7.07E-02	9.92E-06	4.91E-06	7.39E-02	23
Concrete/Industrial Saws	G4	120		1.03E+00	1.72E+00	8.13E+00	3.78E-05	8.51E-05	1.72E-03	7.30E-07	5.85E-06	7.56E-02	6.03E-06	2.02E-06	7.75E-02	24
Cement and Mortar Mixers	G4	5		2.75E+02	6.93E+01	1.82E+01	2.32E-03	1.03E-03	4.45E-02	3.34E-06	3.16E-05	9.68E-02	1.28E-04	1.24E-04	1.39E-01	44
Cement and Mortar Mixers	G4	15		4.66E+02	1.18E+02	6.05E+01	6.16E-03	2.65E-03	1.90E-01	7.49E-06	2.14E-03	2.63E-01	2.70E-04	3.29E-04	3.53E-01	111
Cement and Mortar Mixers	G4	25		1.96E+00	4.94E-01	8.01E-01	7.66E-05	3.15E-05	2.54E-03	8.75E-08	2.82E-05	3.45E-03	1.97E-06	4.09E-06	4.15E-03	1
Cranes	G4	50		5.47E-01	6.22E-01	1.23E+00	5.18E-05	7.23E-05	1.47E-03	1.14E-07	7.16E-07	9.34E-03	3.26E-06	2.76E-06	1.04E-02	3
Cranes	G4	120		1.09E+00	1.24E+00	4.27E+00	1.36E-04	3.90E-04	2.41E-03	3.57E-07	2.86E-06	3.69E-02	1.06E-05	7.26E-06	4.04E-02	13
Cranes	G4	175		4.37E-02	4.98E-02	2.68E-01	4.32E-06	2.96E-05	9.32E-05	2.41E-08	1.93E-07	2.43E-03	5.95E-07	2.30E-07	2.62E-03	1
Crushing/Proc. Equipment	G4	15		7.48E-01	5.93E-01	4.59E-01	3.49E-05	2.54E-05	1.37E-03	6.12E-08	1.80E-05	2.15E-03	1.92E-06	1.86E-06	2.78E-03	1
Crushing/Proc. Equipment	G4	25		4.90E-01	3.88E-01	5.51E-01	4.29E-05	2.73E-05	1.69E-03	6.34E-08	2.10E-05	2.50E-03	1.64E-06	2.29E-06	3.06E-03	1
Crushing/Proc. Equipment	G4	120		6.34E-01	4.19E-01	3.32E+00	8.98E-05	3.00E-04	1.61E-03	2.82E-07	2.26E-06	2.92E-02	5.50E-06	4.80E-06	3.10E-02	10
Rough Terrain Forklifts	G4	50		2.19E-01	2.48E-01	8.32E-01	3.50E-05	4.90E-05	9.97E-04	7.70E-08	4.85E-07	6.33E-03	1.72E-06	1.87E-06	6.91E-03	2
Rough Terrain Forklifts	G4	120		3.11E+00	3.52E+00	1.86E+01	5.91E-04	1.69E-03	1.05E-02	1.55E-06	1.25E-05	1.61E-01	3.76E-05	3.15E-05	1.73E-01	54
Rough Terrain Forklifts	G4	175		1.09E-01	1.24E-01	1.02E+00	1.63E-05	1.12E-04	3.53E-04	9.14E-08	7.33E-07	9.20E-03	1.85E-06	8.72E-07	9.79E-03	3
Rubber Tired Loaders	G4	50		5.47E-01	7.68E-01	1.91E+00	8.46E-05	1.12E-04	2.42E-03	1.74E-07	1.10E-06	1.43E-02	4.54E-06	4.52E-06	1.58E-02	5
Rubber Tired Loaders	G4	120		3.63E+00	5.10E+00	1.97E+01	6.64E-04	1.78E-03	1.18E-02	1.63E-06	1.31E-05	1.69E-01	4.58E-05	3.54E-05	1.84E-01	58
Tractors/Loaders/Backhoes	G4	120		1.92E+00	4.59E+00	1.36E+01	2.83E-04	6.68E-04	7.46E-03	1.15E-06	9.18E-06	1.19E-01	2.48E-05	1.51E-05	1.27E-01	40
Skid Steer Loaders	G4	15		1.47E+00	1.29E+00	1.06E+00	8.18E-05	5.95E-05	3.15E-03	1.41E-07	4.14E-05	4.94E-03	4.35E-06	4.37E-06	6.38E-03	2
Skid Steer Loaders	G4	25		9.83E+01	8.60E+01	9.89E+01	7.84E-03	4.99E-03	3.03E-01	1.14E-05	3.76E-03	4.48E-01	3.29E-04	4.19E-04	5.59E-01	176
Skid Steer Loaders	G4	50		1.49E+01	1.27E+01	2.45E+01	3.48E-04	5.53E-04	2.05E-02	2.47E-06	1.56E-05	2.03E-01	3.97E-05	1.86E-05	2.16E-01	68
Skid Steer Loaders	G4	120		8.92E+00	7.58E+00	3.26E+01	2.41E-04	7.28E-04	8.52E-03	2.90E-06	2.33E-05	3.00E-01	3.33E-05	1.29E-05	3.11E-01	98
Dumpers/Tenders	G4	5		1.40E+01	5.73E+00	7.94E-01	1.17E-04	5.18E-05	1.76E-03	1.54E-07	1.45E-06	4.45E-03	8.11E-06	6.26E-06	7.10E-03	2
Dumpers/Tenders	G4	15		2.99E+01	1.22E+01	4.87E+00	4.84E-04	2.27E-04	1.51E-02	6.09E-07	1.76E-04	2.14E-02	2.53E-05	2.59E-05	2.97E-02	9
Dumpers/Tenders	G4	25		5.54E+00	2.27E+00	1.92E+00	1.82E-04	8.06E-05	6.05E-03	2.12E-07	6.87E-05	8.35E-03	6.62E-06	9.71E-06	1.06E-02	3
Dumpers/Tenders	G4	120		3.94E-01	1.37E-01	3.57E-01	8.49E-06	3.21E-05	1.54E-04	3.06E-08	2.45E-07	3.17E-03	9.85E-07	4.54E-07	3.48E-03	1
Other Construction Equipment	G4	175		1.53E+00	1.56E+00	8.57E+00	3.93E-05	1.58E-04	2.78E-03	7.77E-07	6.23E-06	7.82E-02	7.33E-06	2.10E-06	8.05E-02	25
Pavers	D	25		4.05E-01	9.11E-01	7.74E-01	1.16E-05	6.97E-05	3.69E-05	1.08E-07	3.66E-06	8.49E-03	0.00E+00	1.05E-06	8.51E-03	3
Pavers	D	50		2.35E+01	5.38E+01	7.06E+01	3.90E-03	8.16E-03	9.89E-03	9.72E-06	8.78E-04	7.52E-01	0.00E+00	3.52E-04	7.59E-01	239
Pavers	D	120		2.77E+01	6.34E+01	2.01E+02	4.64E-03	2.78E-02	1.62E-02	2.57E-05	2.46E-03	2.19E+00	0.00E+00	4.19E-04	2.20E+00	693
Pavers	D	175		1.72E+01	3.94E+01	2.31E+02	3.67E-03	2.85E-02	1.54E-02	2.84E-05	1.61E-03	2.53E+00	0.00E+00	3.31E-04	2.53E+00	797
Pavers	D	250		2.08E+00	4.75E+00	4.19E+01	5.18E-04	4.91E-03	1.51E-03	5.19E-06	1.94E-04	4.61E-01	0.00E+00	4.67E-05	4.62E-01	145
Pavers	D	500		2.13E+00	4.87E+00	5.17E+01	5.80E-04	5.46E-03	2.43E-03	5.57E-06	2.15E-04	5.68E-01	0.00E+00	5.24E-05	5.69E-01	179
Plate Compactors	D	15		8.68E+00	1.43E+01	2.81E+00	3.58E-05	2.24E-04	1.88E-04	4.79E-07	8.96E-06	3.08E-02	0.00E+00	3.23E-06	3.09E-02	10
Rollers	D	15		1.63E+01	3.11E+01	8.97E+00	1.14E-04	7.16E-04	5.99E-04	1.53E-06	2.76E-05	9.82E-02	0.00E+00	1.03E-05	9.84E-02	31
Rollers	D	25		6.82E+00	1.30E+01	7.89E+00	1.05E-04	6.68E-04	3.57E-04	1.10E-06	2.91E-05	8.67E-02	0.00E+00	9.48E-06	8.69E-02	27
Rollers	D	50		2.12E+01	4.08E+01	4.94E+01	2.25E-03	5.46E-03	6.11E-03	6.85E-06	5.37E-04	5.30E-01	0.00E+00	2.03E-04	5.34E-01	168
Rollers	D	120		1.14E+02	2.19E+02	5.92E+02	1.15E-02	7.25E-02	4.49E-02	7.58E-05	6.29E-03	6.46E+00	0.00E+00	1.04E-03	6.48E+00	2,041
Rollers	D	175		4.58E+01	8.82E+01	4.35E+02	5.81E-03	4.72E-02	2.74E-02	5.36E-05	2.60E-03	4.76E+00	0.00E+00	5.24E-04	4.77E+00	1,503
Rollers	D	250		6.50E+00	1.25E+01	8.68E+01	8.42E-04	8.81E-03	2.55E-03	1.08E-05	3.11E-04	9.56E-01	0.00E+00	7.60E-05	9.58E-01	302
Rollers	D	500		4.56E+00	8.77E+00	8.71E+01	7.69E-04	7.93E-03	2.96E-03	9.42E-06	2.86E-04	9.60E-01	0.00E+00	6.94E-05	9.61E-01	303
Scrapers	D	120		1.05E+00	3.21E+00	1.38E+01	3.19E-04	1.88E-03	1.12E-03	1.77E-06	1.69E-04	1.51E-01	0.00E+00	2.88E-05	1.51E-01	48
Scrapers	D	175		9.63E+00	2.94E+01	1.99E+02	3.19E-03	2.41E-02	1.34E-02	2.45E-05	1.39E-03	2.17E+00	0.00E+00	2.88E-04	2.18E+00	686
Scrapers	D	250		9.38E+00	2.86E+01	2.73E+02	3.39E-03	3.13E-02	9.59E-03	3.37E-05	1.23E-03	3.00E+00	0.00E+00	3.06E-04	3.00E+00	946
Scrapers	D	500		2.58E+01	7.89E+01	1.15E+03	1.31E-02	1.19E-01	5.12E-02	1.24E-04	4.69E-03	1.27E+01	0.00E+00	1.19E-03	1.27E+01	3,994
Scrapers	D	750		3.63E-01	1.11E+00	2.79E+01	3.20E-04	2.94E-03	1.24E-03	3.09E-06	1.15E-04	3.07E-01	0.00E+00	2.89E-05	3.08E-01	97
Paving Equipment	D	25		7.01E-01	1.59E+00	9.16E-01	1.22E-05	7.75E-05	4.14E-05	1.28E-07	3.37E-06	1.01E-02	0.00E+00	1.10E-06	1.01E-02	3
Paving Equipment	D	50		5.93E-01	1.36E+00	1.53E+00	8.42E-05	1.76E-04	2.12E-04	2.10E-07	1.89E-05	1.63E-02	0.00E+00	7.59E-06	1.64E-02	5
Paving Equipment	D	120		8.55E+00	1.96E+01	4.90E+01	1.13E-03	6.75E-03	3.91E-03	6.26E-06	5.97E-04	5.34E-01	0.00E+00	1.02E-04	5.36E-01	169
Paving Equipment	D	175		4.02E+00	9.22E+00	4.25E+01	6.69E-04	5.24E-03	2.81E-03	5.23E-06	2.94E-04	4.65E-01	0.00E+00	6.04E-05	4.66E-01	147
Paving Equipment	D	250		1.13E+00	2.60E+00	1.44E+01	1.75E-04	1.68E-03	5.12E-04	1.79E-06	6.58E-05	1.59E-01	0.00E+00	1.58E-05	1.59E-01	50
Surfacing Equipment	D	50		5.39E-01	6.70E-01	4.38E-01	1.72E-05	4.72E-05	4.82E-05	6.10E-08	4.28E-06	4.72E-03	0.00E+00	1.55E-06	4.75E-03	1
Surfacing Equipment	D	120		1.08E-01	1.34E-01	3.91E-01	6.95E-06	4.61E-05	2.84E-05	5.00E-08	3.73E-06	4.27E-03	0.00E+00	6.27E-07	4.28E-03	1
Surfacing Equipment	D	175		8.09E-02	1.00E-01	3.93E-01	4.76E-06	4.11E-05	2.38E-05	4.84E-08	2.12E-06	4.30E-03	0.00E+00	4.30E-07	4.31E-03	1
Surfacing Equipment	D	250		1.62E-01	2.01E-01	1.23E+00	1.10E-05	1.20E-04	3.54E-05	1.52E-07	4.15E-06	1.35E-02	0.00E+00	9.92E-07	1.36E-02	4
Surfacing Equipment	D	500		1.35E+00	1.67E+00	1.68E+01	1.36E-04	1.49E-03	5.70E-04	1.82E-06	5.20E-05	1.85E-01	0.00E+00	1.23E-05	1.85E-01	58
Surfacing Equipment	D	750		6.93E-02	8.60E-02	1.35E+00	1.12E-05	1.23E-04	4.59E-05	1.50E-07	4.24E-06	1.49E-02	0.00E+00	1.01E-06	1.49E-02	5
Signal Boards	D	15		7.59E+01	1.56E+02	4.40E+01	5.60E-04	3.51E-03	2.94E-03	7.49E-06	1.36E-04	4.81E-01	0.00E+00	5.05E-05	4.82E-01	152
Signal Boards	D	50		3.78E-01	5.54E-01	9.29E-01	3.51E-05	9.86E-05	9.92E-05	1.29E-07	8.96E-06	1.00E-02	0.00E+00	3.17E-06	1.01E-02	3
Signal Boards	D	120		6.18E+00	9.06E+00	3.32E+01	5.81E-04	3.78E-03	2.38E-03	4.26E-06	3.18E-04	3.63E-01	0.00E+00	5.24E-05	3.64E-01	115
Signal Boards	D	175		3.83E+00	5.62E+00	3.96E+01	4.66E-04	4.00E-03	2.35E-03	4.88E-06	2.10E-04	4.34E-01	0.00E+00	4.20E-05	4.35E-01	137
Signal Boards	D	250		8.09E-01	1.19E+00	1.37E+01	1.04E-04	1.28E-03	3.27E-04	1.70E-06	3.79E-05	1.51E-01	0.00E+00	9.34E-06	1.52E-01	48
Trenchers	D	15		2.02E+00	3.43E+00	1.32E+00	1.69E-05	1.06E-04	8.85E-05	2.26E-07	4.10E-06	1.45E-02	0.00E+00	1.52E-06	1.45E-02	5
Trenchers	D	25		2.13E+00	3.61E+00	5.41E+00	7.17E-05	4.54E-04	2.44E-04	7.53E-07	1.81E-05	5.94E-02	0.00E+00	6.47E-06	5.95E-02	19
Trenchers	D	50		8.11E+01	1.40E+02	2.16E+02	1.16E-02	2.48E-02	2.93E-02	2.99E-05	2.62E-03	2.31E+00	0.00E+00	1.05E-03	2.33E+00	734
Trenchers	D	120		1.10E+02	1.90E+02	5.67E+02	1.29E-02	7.85E-02	4.50E-02	7.24E-05	6.74E-03	6.17E+00	0.00E+00	1.16E-03	6.19E+00	1,950
Trenchers	D	175		1.20E+01	2.08E+01	1.37E+02	2.13E-03	1.70E-02	9.05E-03	1.68E-05	9.37E-04	1.50E+00	0.00E+00	1.92E-04	1.50E+00	473
Trenchers	D	250		1.08E+00	1.87E+00	1.89E+01	2.32E-04	2.23E-03	6.93E-04	2.34E-06	8.87E-05	2.08E-01	0.00E+00	2.09E-05	2.08E-01	66

Construction

					Tons/Day											MTons/Year
Equipment	Fuel	MaxHP	MY	Population	Activity	Consumption	ROG Exhaust	NOX Exhaust	CO Exhaust	SO2 Exhaust	PM Exhaust	CO2 Exhaust	N2O Exhaust	CH4 Exhaust	CO2e	CO2e
Trenchers	D	500		1.38E+00	2.38E+00	3.37E+01	3.73E-04	3.60E-03	1.67E-03	3.64E-06	1.42E-04	3.70E-01	0.00E+00	3.37E-05	3.71E-01	117
Trenchers	D	750		1.39E-02	2.40E-02	6.41E-01	7.14E-06	6.95E-05	3.17E-05	7.07E-08	2.71E-06	7.04E-03	0.00E+00	6.44E-07	7.05E-03	2
Bore/Drill Rigs	D	15		2.70E-01	6.00E-01	2.83E-01	3.61E-06	2.26E-05	1.89E-05	4.82E-08	8.71E-07	3.10E-03	0.00E+00	3.26E-07	3.11E-03	1
Bore/Drill Rigs	D	25		8.09E-01	1.80E+00	1.31E+00	1.74E-05	1.11E-04	5.92E-05	1.82E-07	4.82E-06	1.44E-02	0.00E+00	1.57E-06	1.44E-02	5
Bore/Drill Rigs	D	50		3.53E+00	8.16E+00	1.16E+01	1.43E-04	1.13E-03	9.52E-04	1.64E-06	6.09E-05	1.27E-01	0.00E+00	1.29E-05	1.27E-01	40
Bore/Drill Rigs	D	120		1.08E+01	2.50E+01	8.79E+01	6.43E-04	6.29E-03	5.91E-03	1.13E-05	4.11E-04	9.65E-01	0.00E+00	5.80E-05	9.66E-01	304
Bore/Drill Rigs	D	175		2.51E+00	5.79E+00	3.72E+01	2.17E-04	2.16E-03	2.18E-03	4.59E-06	1.06E-04	4.08E-01	0.00E+00	1.96E-05	4.09E-01	129
Bore/Drill Rigs	D	250		2.16E+00	4.98E+00	4.24E+01	2.09E-04	2.17E-03	8.55E-04	5.27E-06	6.68E-05	4.68E-01	0.00E+00	1.88E-05	4.69E-01	148
Bore/Drill Rigs	D	500		4.80E+00	1.11E+01	1.56E+02	7.50E-04	7.29E-03	3.06E-03	1.69E-05	2.42E-04	1.72E+00	0.00E+00	6.77E-05	1.73E+00	543
Bore/Drill Rigs	D	750		2.15E-01	4.96E-01	1.38E+01	6.67E-05	6.53E-04	2.71E-04	1.53E-06	2.15E-05	1.52E-01	0.00E+00	6.02E-06	1.53E-01	48
Bore/Drill Rigs	D	1000		3.60E-01	8.31E-01	3.49E+01	1.87E-04	2.75E-03	6.97E-04	3.88E-06	7.07E-05	3.86E-01	0.00E+00	1.69E-05	3.86E-01	121
Excavators	D	25		9.98E-01	3.82E+00	2.86E+00	3.78E-05	2.39E-04	1.29E-04	3.98E-07	9.13E-06	3.14E-02	0.00E+00	3.41E-06	3.14E-02	10
Excavators	D	50		3.76E+01	1.47E+02	1.71E+02	6.68E-03	1.88E-02	2.15E-02	2.37E-05	1.73E-03	1.83E+00	0.00E+00	6.03E-04	1.85E+00	581
Excavators	D	120		1.02E+02	3.98E+02	1.34E+03	2.35E-02	1.45E-01	1.04E-01	1.72E-04	1.31E-02	1.47E+01	0.00E+00	2.12E-03	1.47E+01	4,626
Excavators	D	175		1.97E+02	7.68E+02	3.93E+03	4.94E-02	3.69E-01	2.56E-01	4.85E-04	2.18E-02	4.31E+01	0.00E+00	4.46E-03	4.32E+01	13,591
Excavators	D	250		8.00E+01	3.13E+02	2.25E+03	2.03E-02	1.94E-01	5.67E-02	2.79E-04	6.48E-03	2.48E+01	0.00E+00	1.83E-03	2.48E+01	7,811
Excavators	D	500		5.77E+01	2.25E+02	2.39E+03	2.03E-02	1.81E-01	6.19E-02	2.58E-04	6.46E-03	2.63E+01	0.00E+00	1.83E-03	2.64E+01	8,299
Excavators	D	750		1.09E-01	4.24E-01	7.44E+00	6.37E-05	5.82E-04	1.93E-04	8.25E-07	2.05E-05	8.20E-02	0.00E+00	5.75E-06	8.22E-02	26
Concrete/Industrial Saws	D	25		1.08E-01	1.75E-01	1.31E-01	1.74E-06	1.10E-05	5.94E-06	1.83E-08	4.40E-07	1.44E-03	0.00E+00	1.57E-07	1.44E-03	0
Concrete/Industrial Saws	D	50		9.44E-01	1.50E+00	2.10E+00	7.85E-05	2.23E-04	2.26E-04	2.93E-07	2.01E-05	2.27E-02	0.00E+00	7.08E-06	2.28E-02	7
Concrete/Industrial Saws	D	120		1.65E+00	2.62E+00	8.87E+00	1.51E-04	9.96E-04	6.38E-04	1.14E-06	8.35E-05	9.69E-02	0.00E+00	1.36E-05	9.72E-02	31
Concrete/Industrial Saws	D	175		5.39E-02	8.58E-02	6.26E-01	7.21E-06	6.21E-05	3.74E-05	7.72E-08	3.28E-06	6.86E-03	0.00E+00	6.51E-07	6.88E-03	2
Cement and Mortar Mixers	D	15		1.38E+01	1.13E+01	3.27E+00	4.25E-05	2.69E-04	2.19E-04	5.57E-07	1.32E-05	3.58E-02	0.00E+00	3.84E-06	3.59E-02	11
Cement and Mortar Mixers	D	25		1.24E+00	1.02E+00	8.18E-01	1.50E-05	7.89E-05	4.34E-05	1.14E-07	4.62E-06	8.95E-03	0.00E+00	1.35E-06	8.98E-03	3
Cranes	D	50		9.17E-01	3.22E+00	3.49E+00	1.77E-04	3.99E-04	4.79E-04	4.82E-07	4.15E-05	3.73E-02	0.00E+00	1.60E-05	3.76E-02	12
Cranes	D	120		1.01E+01	3.53E+01	8.13E+01	1.73E-03	1.03E-02	6.44E-03	1.04E-05	9.41E-04	8.85E-01	0.00E+00	1.56E-04	8.88E-01	280
Cranes	D	175		1.01E+01	3.53E+01	1.30E+02	1.92E-03	1.46E-02	8.54E-03	1.60E-05	8.46E-04	1.42E+00	0.00E+00	1.73E-04	1.42E+00	448
Cranes	D	250		1.95E+01	6.85E+01	3.48E+02	3.77E-03	3.66E-02	1.06E-02	4.32E-05	1.33E-03	3.84E+00	0.00E+00	3.41E-04	3.84E+00	1,210
Cranes	D	500		7.15E+00	2.51E+01	2.05E+02	2.05E-03	1.92E-02	7.14E-03	2.22E-05	7.16E-04	2.26E+00	0.00E+00	1.85E-04	2.26E+00	712
Cranes	D	750		4.50E-01	1.58E+00	2.18E+01	2.19E-04	2.09E-03	7.57E-04	2.41E-06	7.69E-05	2.40E-01	0.00E+00	1.97E-05	2.40E-01	76
Cranes	D	9999		5.66E-01	1.99E+00	8.76E+01	9.83E-04	1.09E-02	3.56E-03	9.68E-06	3.36E-04	9.63E-01	0.00E+00	8.87E-05	9.65E-01	304
Graders	D	50		3.78E-01	9.85E-01	1.26E+00	5.81E-05	1.42E-04	1.65E-04	1.75E-07	1.40E-05	1.35E-02	0.00E+00	5.24E-06	1.37E-02	4
Graders	D	120		2.52E+01	6.57E+01	2.26E+02	4.42E-03	2.70E-02	1.76E-02	2.89E-05	2.43E-03	2.46E+00	0.00E+00	3.99E-04	2.47E+00	777
Graders	D	175		8.61E+01	2.24E+02	1.27E+03	1.74E-02	1.34E-01	8.25E-02	1.56E-04	7.70E-03	1.39E+01	0.00E+00	1.57E-03	1.39E+01	4,384
Graders	D	250		5.34E+01	1.39E+02	1.09E+03	1.10E-02	1.07E-01	3.14E-02	1.35E-04	3.80E-03	1.20E+01	0.00E+00	9.88E-04	1.20E+01	3,775
Graders	D	500		1.51E+00	3.94E+00	4.10E+01	3.83E-04	3.58E-03	1.31E-03	4.43E-06	1.32E-04	4.51E-01	0.00E+00	3.46E-05	4.52E-01	142
Graders	D	750		6.93E-03	1.81E-02	3.98E-01	3.74E-06	3.56E-05	1.27E-05	4.41E-08	1.30E-06	4.38E-03	0.00E+00	3.38E-07	4.39E-03	1
Off-Highway Trucks	D	175		1.75E+00	9.57E+00	5.46E+01	7.32E-04	5.29E-03	3.63E-03	6.73E-06	3.18E-04	5.98E-01	0.00E+00	6.61E-05	5.99E-01	189
Off-Highway Trucks	D	250		1.29E+01	7.07E+01	5.33E+02	5.18E-03	4.77E-02	1.39E-02	6.62E-05	1.63E-03	5.88E+00	0.00E+00	4.68E-04	5.89E+00	1,854
Off-Highway Trucks	D	500		1.82E+01	9.95E+01	1.23E+03	1.13E-02	9.67E-02	3.31E-02	1.33E-04	3.51E-03	1.35E+01	0.00E+00	1.02E-03	1.36E+01	4,269
Off-Highway Trucks	D	750		1.45E+00	7.93E+00	1.59E+02	1.46E-03	1.29E-02	4.28E-03	1.76E-05	4.61E-04	1.75E+00	0.00E+00	1.32E-04	1.75E+00	552
Off-Highway Trucks	D	1000		6.81E-01	3.72E+00	1.05E+02	1.08E-03	1.19E-02	3.32E-03	1.17E-05	3.59E-04	1.16E+00	0.00E+00	9.70E-05	1.16E+00	366
Crushing/Proc. Equipment	D	50		4.31E+00	1.13E+01	2.32E+01	1.09E-03	2.57E-03	2.94E-03	3.21E-06	2.61E-04	2.48E-01	0.00E+00	9.81E-05	2.51E-01	79
Crushing/Proc. Equipment	D	120		1.22E+01	3.18E+01	1.21E+02	2.42E-03	1.46E-02	9.27E-03	1.55E-05	1.35E-03	1.32E+00	0.00E+00	2.19E-04	1.33E+00	418
Crushing/Proc. Equipment	D	175		5.15E+00	1.35E+01	1.03E+02	1.41E-03	1.10E-02	6.50E-03	1.27E-05	6.37E-04	1.13E+00	0.00E+00	1.27E-04	1.13E+00	356
Crushing/Proc. Equipment	D	250		5.12E-01	1.34E+00	1.49E+01	1.31E-04	1.47E-03	3.75E-04	1.84E-06	4.57E-05	1.64E-01	0.00E+00	1.18E-05	1.64E-01	52
Crushing/Proc. Equipment	D	500		2.89E+00	7.56E+00	1.28E+02	1.03E-03	1.11E-02	3.38E-03	1.38E-05	3.67E-04	1.41E+00	0.00E+00	9.31E-05	1.41E+00	445
Crushing/Proc. Equipment	D	750		1.15E-02	3.02E-02	8.06E-01	6.58E-06	7.29E-05	2.10E-05	8.94E-08	2.35E-06	8.90E-03	0.00E+00	5.94E-07	8.91E-03	3
Crushing/Proc. Equipment	D	9999		1.15E-02	3.02E-02	1.79E+00	1.83E-05	2.15E-04	6.11E-05	1.99E-07	6.35E-06	1.98E-02	0.00E+00	1.65E-06	1.98E-02	6
Rough Terrain Forklifts	D	50		2.99E+00	9.30E+00	1.47E+01	6.11E-04	1.61E-03	1.82E-03	2.03E-06	1.53E-04	1.57E-01	0.00E+00	5.51E-05	1.59E-01	50
Rough Terrain Forklifts	D	120		1.43E+02	4.46E+02	1.27E+03	2.31E-02	1.43E-01	9.71E-02	1.63E-04	1.30E-02	1.39E+01	0.00E+00	2.08E-03	1.39E+01	4,389
Rough Terrain Forklifts	D	175		1.84E+01	5.71E+01	3.25E+02	4.11E-03	3.19E-02	2.07E-02	4.01E-05	1.86E-03	3.56E+00	0.00E+00	3.71E-04	3.57E+00	1,123
Rough Terrain Forklifts	D	250		1.02E+00	3.18E+00	2.46E+01	2.15E-04	2.24E-03	6.20E-04	3.06E-06	7.29E-05	2.72E-01	0.00E+00	1.94E-05	2.72E-01	86
Rough Terrain Forklifts	D	500		6.74E-01	2.10E+00	2.43E+01	1.98E-04	1.94E-03	6.27E-04	2.64E-06	6.72E-05	2.69E-01	0.00E+00	1.79E-05	2.69E-01	85
Rubber Tired Loaders	D	25		3.78E-01	9.91E-01	7.63E-01	1.01E-05	6.41E-05	3.45E-05	1.06E-07	2.56E-06	8.38E-03	0.00E+00	9.14E-07	8.40E-03	3
Rubber Tired Loaders	D	50		7.34E+00	1.96E+01	2.85E+01	1.29E-03	3.18E-03	3.68E-03	3.95E-06	3.12E-04	3.05E-01	0.00E+00	1.16E-04	3.08E-01	97
Rubber Tired Loaders	D	120		1.99E+02	5.33E+02	1.44E+03	2.78E-02	1.71E-01	1.12E-01	1.84E-04	1.53E-02	1.57E+01	0.00E+00	2.51E-03	1.57E+01	4,957
Rubber Tired Loaders	D	175		1.12E+02	3.01E+02	1.46E+03	1.97E-02	1.52E-01	9.44E-02	1.80E-04	8.75E-03	1.60E+01	0.00E+00	1.78E-03	1.60E+01	5,037
Rubber Tired Loaders	D	250		1.12E+02	2.99E+02	2.02E+03	1.99E-02	1.96E-01	5.73E-02	2.50E-04	6.90E-03	2.22E+01	0.00E+00	1.79E-03	2.23E+01	7,014
Rubber Tired Loaders	D	500		4.65E+01	1.24E+02	1.34E+03	1.22E-02	1.15E-01	4.20E-02	1.45E-04	4.21E-03	1.47E+01	0.00E+00	1.10E-03	1.48E+01	4,643
Rubber Tired Loaders	D	750		2.79E-01	7.47E-01	1.65E+01	1.51E-04	1.46E-03	5.17E-04	1.82E-06	5.25E-05	1.81E-01	0.00E+00	1.36E-05	1.82E-01	57
Rubber Tired Loaders	D	1000		3.00E-02	8.02E-02	2.16E+00	2.20E-05	2.54E-04	7.85E-05	2.39E-07	7.65E-06	2.38E-02	0.00E+00	1.98E-06	2.38E-02	8
Rubber Tired Dozers	D	175		2.70E-01	1.20E+00	7.14E+00	1.33E-04	9.81E-04	5.13E-04	8.77E-07	5.69E-05	7.79E-02	0.00E+00	1.20E-05	7.82E-02	25
Rubber Tired Dozers	D	250		6.61E+00	2.95E+01	2.47E+02	3.75E-03	3.24E-02	1.05E-02	3.04E-05	1.39E-03	2.71E+00	0.00E+00	3.39E-04	2.71E+00	854
Rubber Tired Dozers	D	500		1.02E+01	4.54E+01	5.49E+02	7.59E-03	6.54E-02	3.46E-02	5.90E-05	2.75E-03	6.01E+00	0.00E+00	6.85E-04	6.02E+00	1,897
Rubber Tired Dozers	D	750		3.07E-01	1.37E+00	2.50E+01	3.46E-04	3.02E-03	1.57E-03	2.75E-06	1.26E-04	2.73E-01	0.00E+00	3.13E-05	2.74E-01	86
Rubber Tired Dozers	D	1000		2.08E-02	9.28E-02	2.51E+00	3.63E-05	3.61E-04	1.71E-04	2.76E-07	1.27E-05	2.74E-02	0.00E+00	3.27E-06	2.75E-02	9
Tractors/Loaders/Backhoes	D	25		7.60E+00	1.96E+01	1.42E+01	1.95E-04	1.23E-03	6.49E-04	1.98E-06	6.00E-05	1.56E-01	0.00E+00	1.76E-05	1.56E-01	49
Tractors/Loaders/Backhoes	D	50		4.54E+01	1.21E+02	1.70E+02	6.05E-03	1.83E-02	1.99E-02	2.36E-05	1.61E-03	1.83E+00	0.00E+00	5.46E-04	1.84E+00	579
Tractors/Loaders/Backhoes	D	120		6.08E+02	1.61E+03	3.82E+03	6.12E-02	3.95E-01	2.87E-01	4.89E-04	3.48E-02	4.17E+01	0.00E+00	5.52E-03	4.18E+01	13,157
Tractors/Loaders/Backhoes	D	175		4.54E+01	1.20E+02	5.56E+02	6.36E-03	4.98E-02	3.53E-02	6.86E-05	2.87E-03	6.10E+00	0.00E+00	5.74E-04	6.11E+00	1,923
Tractors/Loaders/Backhoes	D	250		1.47E+01	3.89E+01	3.03E+02	2.46E-03	2.49E-02	7.30E-03	3.76E-05	8.08E-04	3.34E+00	0.00E+00	2.22E-04	3.34E+00	1,053
Tractors/Loaders/Backhoes	D	500		2.37E+01	6.28E+01	9.81E+02	7.49E-03	7.10E-02	2.42E-02	1.22E-04	2.46E-03	1.08E+01	0.00E+00	6.76E-04	1.08E+01	3,412
Tractors/Loaders/Backhoes	D	750		1.40E+00	3.71E+00	8.68E+01	6.68E-04	6.48E-03	2.14E-03	1.08E-05	2.22E-04	9.58E-01	0.00E+00	6.03E-05	9.60E-01	302
Crawler Tractors	D	50		3.78E-01	1.09E+00	1.27E+00	6.84E-05	1.47E-04	1.81E-04	1.74E-07	1.57E-05	1.35E-02	0.00E+00	6.17E-06	1.36E-02	4
Crawler Tractors	D	120		2.14E+02	6.16E+02	1.86E+03	4.22E-02	2.50E-01	1.51E-01	2.37E-04	2.24E-02	2.02E+01	0.00E+00	3.81E-03	2.03E+01	6,397
Crawler Tractors	D	175		7.25E+01	2.08E+02	1.15E+03	1.83E-02	1.38E-01	7.80E-02	1.42E-04	7.96E-03	1.26E+01	0.00E+00	1.65E-03	1.26E+01	3,982
Crawler Tractors	D	250		6.23E+01	1.79E+02	1.35E+03	1.66E-02	1.52E-01	4.68E-02	1.67E-04	5.97E-03	1.49E+01	0.00E+00	1.50E-03	1.49E+01	4,688
Crawler Tractors	D	500		4.27E+01	1.23E+02	1.45E+03	1.63E-02	1.47E-01	6.27E-02	1.56E-04	5.78E-03	1.59E+01	0.00E+00	1.47E-03	1.59E+01	5,012
Crawler Tractors	D	750		1.85E-01	5.31E-01	1.12E+01	1.27E-04	1.16E-03	4.86E-04	1.24E-06	4.53E-05	1.23E-01	0.00E+00	1.15E-05	1.24E-01	39
Crawler Tractors	D	1000		1.85E-01	5.31E-01	1.59E+01	1.92E-04	2.06E-03	7.71E-04	1.75E-06	6.64E-05	1.74E-01	0.00E+00	1.73E-05	1.75E-01	55
Skid Steer Loaders	D	25		5.18E+01	1.18E+02	7.45E+01	1.25E-03	7.03E-03	3.76E-03	1.04E-05	3.96E-04	8.16E-01	0.00E+00	1.13E-04	8.18E-01	258
Skid Steer Loaders	D	50		4.70E+02	1.10E+03	1.29E+03	3.26E-02	1.31E-01	1.28E-01	1.81E-04	9.87E-03	1.40E+01	0.00E+00	2.94E-03	1.40E+01	4,416
Skid Steer Loaders	D	120		2.46E+02	5.74E+02	1.12E+03	1.38E-02	1.01E-01	7.94E-02	1.44E-04	8.19E-03	1.23E+01	0.00E+00	1.25E-03	1.23E+01	3,869
Off-Highway Tractors	D	120		2.70E-02	8.26E-02	3.56E-01	9.17E-06	5.35E-05	3.00E-05	4.54E-08	4.72E-06	3.87E-03	0.00E+00	8.28E-07	3.89E-03	1
Off-Highway Tractors	D	175		3.30E+01	1.01E+02	6.03E+02	1.08E-02	8.12E-02	4.24E-02	7.41E-05	4.66E-03	6.58E+00	0.00E+00	9.72E-04	6.60E+00	2,079
Off-Highway Tractors	D	250		3.12E+01	9.55E+01	5.67E+02	8.20E-03	7.29E-02	2.34E-02	7.00E-05	3.08E-03	6.22E+00	0.00E+00	7.40E-04	6.24E+00	1,964
Off-Highway Tractors	D	750		1.16E+00	3.55E+00	9.20E+01	1.21E-03	1.09E-02	5.51E-03	1.01E-05	4.47E-04	1.01E+00	0.00E+00	1.09E-04	1.01E+00	318
Off-Highway Tractors	D	1000		1.22E-01	3.75E-01	1.39E+01	1.92E-04	1.97E-03	9.06E-04	1.53E-06	6.79E-05	1.52E-01	0.00E+00	1.73E-05	1.53E-01	48
Dumpers/Tenders	D	25		6.47E-01	1.17E+00	4.08E-01	5.85E-06	3.60E-05	1.90E-05	5.68E-08	1.83E-06	4.47E-03	0.00E+00	5.28E-07	4.49E-03	1
Other Construction Equipment	D	15		8.93E+00	1.69E+01	7.79E+00	9.93E-05	6.22E-04	5.21E-04	1.33E-06	2.40E-05	8.53E-02	0.00E+00	8.96E-06	8.55E-02	27
Other Construction Equipment	D	25		1.51E+00	2.86E+00	1.72E+00	2.29E-05	1.45E-04	7.77E-05	2.39E-07	6.33E-06	1.89E-02	0.00E+00	2.06E-06	1.89E-02	6
Other Construction Equipment	D	50		2.32E+00	4.47E+00	5.79E+00	1.88E-04	6.05E-04	6.12E-04	8.08E-07	5.09E-05	6.25E-02	0.00E+00	1.70E-05	6.29E-02	20
Other Construction Equipment	D	120		3.83E+00	7.38E+00	2.73E+01	4.07E-04	2.78E-03	1.96E-03	3.50E-06	2.33E-04	2.98E-01	0.00E+00	3.67E-05	2.99E-01	94
Other Construction Equipment	D	175		5.29E+00	1.02E+01	4.94E+01	5.13E-04	4.38E-03	2.99E-03	6.10E-06	2.38E-04	5.42E-01	0.00E+00	4.63E-05	5.43E-01	171
Other Construction Equipment	D	500		1.23E+01	2.37E+01	2.72E+02	1.79E-03	1.96E-02	6.41E-03	2.95E-05	6.44E-04	3.00E+00	0.00E+00	1.62E-04	3.01E+00	947

Construction

Equipment	Fuel	MaxHP	MY	Population	Activity	Consumption	ROG Exhaust	NOX Exhaust	CO Exhaust	SO2 Exhaust	PM Exhaust	CO2 Exhaust	N2O Exhaust	CH4 Exhaust	CO2e	MTons/Year CO2e
				6,354	12,333	46,767	0.708	4.726	4.525	0.006	0.303	508.084	0.003	0.062	510.397	160,670
				Population	Activity	Consumption	lbs/day					Tons/Day				MTons/Year
				532	1,032	3,914	118	791	757	1	51	43	0	0	43	**13,447**

Tons/Day

As a percent of Total Housing Permits issued. San Mateo County 932 Menlo Park: 78 Percent 8%

Source: Association of Bay Area Governments (ABAG). 2010, April. San Francisco Bay Area Housing Data.http://www.abag.ca.gov/pdfs/2009_Housing_Data.pdf

Annual GHG emissions (MTons/Year) multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. This assumption is consistent with the California Air Resources Board's (CARB) methodology for transportation within the Climate Change Scoping Plan Measure Documentation Supplement.

Lawn & Garden					Tons/Day										MTons/Year
Equipment	Fuel	MaxHP	MY	Population	Activity	Consumption	ROG Exhaust	NOX Exhaust	CO Exhaust	SO2 Exhaust	PM Exhaust	CO2 Exhaust	N2O Exhaust	CH4 Exhaust	CO2e	CO2e
Lawn Mowers	G2	15		9.35E+02	5.85E+02	6.62E+01	7.49E-03	2.02E-03	1.34E-01	1.64E-05	1.26E-03	3.99E-01	5.17E-04	4.65E-04	5.69E-01	188
Lawn Mowers	G2	15		7.02E+03	2.98E+02	4.36E+01	1.09E-02	1.13E-03	1.12E-01	8.37E-06	7.55E-04	2.03E-01	2.64E-04	6.81E-04	2.99E-01	99
Chainsaws	G2	2		1.67E+03	1.33E+03	7.91E+01	6.61E-02	1.05E-03	1.20E-01	1.33E-05	1.88E-04	3.23E-01	5.36E-04	4.11E-03	5.76E-01	191
Chainsaws	G2	2		1.88E+04	2.53E+02	1.48E+01	8.42E-03	2.07E-04	3.11E-02	2.54E-06	1.60E-04	6.16E-02	1.03E-04	5.23E-04	1.04E-01	35
Chainsaws	G2	15		1.18E+03	9.34E+02	1.35E+02	1.13E-01	1.79E-03	2.04E-01	2.27E-05	3.21E-04	5.51E-01	6.05E-04	7.00E-03	8.85E-01	293
Chainsaws	G2	15		1.33E+04	1.78E+02	2.39E+01	1.28E-02	3.44E-04	4.89E-02	4.32E-06	3.02E-04	1.05E-01	1.14E-04	7.98E-04	1.57E-01	52
Chainsaws Preempt	G2	15		1.47E+03	1.16E+03	1.68E+02	1.40E-01	2.23E-03	2.54E-01	2.82E-05	3.99E-04	6.85E-01	7.53E-04	8.71E-03	1.10E+00	365
Chainsaws Preempt	G2	15		1.65E+04	2.22E+02	3.36E+01	2.08E-02	3.53E-04	7.29E-02	5.38E-06	1.99E-04	1.31E-01	1.29E-04	1.30E-03	1.98E-01	65
Trimmers/Edgers/Brush Cutters	G2	2		5.46E+03	1.81E+03	8.05E+01	4.34E-02	1.26E-03	1.43E-01	1.59E-05	2.25E-04	3.87E-01	6.83E-04	2.70E-03	6.55E-01	217
Trimmers/Edgers/Brush Cutters	G2	2		6.08E+04	3.58E+03	1.52E+02	6.92E-02	2.57E-03	2.83E-01	3.14E-05	4.53E-04	7.63E-01	1.37E-03	4.30E-03	1.28E+00	423
Leaf Blowers/Vacuums	G2	2		8.15E+03	4.38E+03	2.34E+02	1.61E-01	3.38E-03	3.84E-01	4.27E-05	6.04E-04	1.04E+00	1.74E-03	1.00E-02	1.79E+00	592
Leaf Blowers/Vacuums	G2	2		2.10E+04	2.76E+02	1.57E+01	8.92E-03	2.19E-04	3.30E-02	2.69E-06	1.69E-04	6.54E-02	1.11E-04	5.54E-04	1.11E-01	37
Shredders	G2	15		4.12E+01	1.53E+01	6.72E+00	3.78E-04	2.96E-04	1.82E-02	1.43E-06	2.92E-04	3.48E-02	3.39E-05	2.35E-05	4.58E-02	15
Shredders	G2	15		1.47E+03	3.62E+00	1.85E+00	4.96E-04	5.26E-05	4.95E-03	3.38E-07	6.89E-05	8.22E-03	6.70E-06	3.09E-05	1.09E-02	4
Commercial Turf Equipment	G2	15		2.18E+01	4.79E+01	1.96E+01	9.05E-04	6.91E-04	5.33E-02	4.20E-06	4.75E-05	1.02E-01	9.07E-05	5.63E-05	1.31E-01	43
Commercial Turf Equipment	G2	25		1.08E+01	2.36E+01	2.10E+01	9.42E-04	7.23E-04	5.90E-02	4.37E-06	4.95E-05	1.06E-01	6.69E-05	5.85E-05	1.28E-01	42
Other Lawn & Garden Equipment	G2	2		9.23E+00	1.73E+00	9.68E-02	4.76E-05	1.55E-06	1.76E-04	1.96E-08	2.77E-07	4.76E-04	7.47E-07	2.96E-06	7.70E-04	0
Other Lawn & Garden Equipment	G2	2		2.83E+02	3.33E+00	2.19E-01	1.23E-04	3.07E-06	4.62E-04	3.77E-08	2.37E-06	9.15E-04	1.44E-06	7.67E-06	1.52E-03	1
Other Lawn & Garden Equipment	G2	15		4.02E+00	7.55E-01	2.11E-01	1.04E-04	3.37E-06	3.83E-04	4.27E-08	6.03E-07	1.04E-03	7.67E-07	6.44E-06	1.41E-03	0
Other Lawn & Garden Equipment	G2	15		1.23E+02	1.45E+00	4.52E-01	2.40E-04	6.53E-06	9.28E-04	8.20E-08	5.74E-06	1.99E-03	1.46E-06	1.49E-05	2.76E-03	1
Lawn Mowers	G4	5		5.53E+03	3.46E+03	4.24E+02	5.18E-02	1.29E-02	9.73E-01	8.16E-05	7.45E-03	2.36E+00	3.06E-03	2.76E-03	3.37E+00	1,116
Lawn Mowers	G4	5		8.77E+04	3.72E+03	5.42E+02	5.90E-02	1.55E-02	1.57E+00	8.77E-05	6.07E-03	2.54E+00	3.36E-03	3.14E-03	3.65E+00	1,208
Tillers	G4	5		5.74E+02	8.79E+01	1.28E+01	1.18E-03	2.97E-04	3.35E-02	2.30E-06	1.76E-04	6.66E-02	7.30E-05	6.28E-05	9.05E-02	30
Tillers	G4	5		2.23E+03	1.10E+02	1.79E+01	2.14E-03	5.16E-04	5.19E-02	2.88E-06	2.08E-04	8.33E-02	1.06E-04	1.14E-04	1.19E-01	39
Trimmers/Edgers/Brush Cutters	G4	5		1.01E+03	3.75E+02	1.18E+01	1.58E-03	6.99E-04	2.81E-02	2.21E-06	2.09E-05	6.40E-02	2.29E-04	8.46E-05	1.37E-01	45
Trimmers/Edgers/Brush Cutters	G4	5		4.71E+03	2.77E+02	1.05E+01	1.65E-03	4.24E-04	3.07E-02	1.63E-06	8.91E-05	4.72E-02	1.52E-04	8.83E-05	9.62E-02	32
Leaf Blowers/Vacuums	G4	5		2.57E+02	4.38E+01	2.99E+00	2.26E-04	5.50E-05	8.29E-03	5.15E-07	3.50E-05	1.49E-02	2.16E-05	1.21E-05	2.19E-02	7
Leaf Blowers/Vacuums	G4	5		2.21E+02	2.91E+00	2.33E-01	2.38E-05	5.25E-06	7.45E-04	3.42E-08	1.98E-06	9.91E-04	1.70E-06	1.27E-06	1.54E-03	1
Rear Engine Riding Mowers	G4	15		3.03E+03	2.25E+03	7.70E+02	3.66E-02	2.59E-02	2.32E+00	1.04E-04	1.69E-03	3.65E+00	3.63E-03	1.96E-03	4.81E+00	1,594
Rear Engine Riding Mowers	G4	15		2.66E+03	2.05E+02	7.12E+01	3.88E-03	2.46E-03	2.16E-01	9.48E-06	1.32E-04	3.32E-01	3.35E-04	2.07E-04	4.41E-01	146
Rear Engine Riding Mowers	G4	25		1.39E+01	1.03E+01	6.85E+00	3.14E-04	2.26E-04	2.13E-02	7.98E-07	1.46E-05	3.15E-02	2.34E-05	1.68E-05	3.91E-02	13
Rear Engine Riding Mowers	G4	25		1.20E+01	9.23E-01	6.21E-01	3.34E-05	1.94E-05	1.93E-03	7.16E-08	1.13E-06	2.82E-03	2.04E-06	1.78E-06	3.49E-03	1
Front Mowers	G4	15		1.39E+02	1.03E+02	5.64E+01	2.68E-03	1.90E-03	1.70E-01	7.61E-06	1.24E-04	2.67E-01	2.14E-04	1.43E-04	3.36E-01	111
Front Mowers	G4	15		4.49E+03	3.47E+02	1.92E+02	1.05E-02	6.65E-03	5.83E-01	2.56E-05	3.57E-04	8.97E-01	7.27E-04	5.60E-04	1.13E+00	375
Front Mowers	G4	25		1.09E+02	8.09E+01	5.95E+01	2.73E-03	1.96E-03	1.85E-01	6.93E-06	1.27E-04	2.73E-01	1.94E-04	1.46E-04	3.37E-01	111
Front Mowers	G4	25		3.52E+03	2.72E+02	2.02E+02	1.09E-02	6.32E-03	6.29E-01	2.33E-05	3.66E-04	9.18E-01	6.32E-04	5.80E-04	1.13E+00	373
Shredders	G4	5		1.09E+02	4.05E+01	1.14E+01	1.52E-03	6.71E-04	2.70E-02	2.12E-06	2.00E-05	6.14E-02	7.92E-05	8.12E-05	8.77E-02	29
Shredders	G4	5		4.06E+03	1.00E+01	3.63E+00	3.64E-04	1.04E-04	1.18E-02	5.23E-07	3.64E-05	1.51E-02	1.52E-05	1.95E-05	2.03E-02	7
Lawn & Garden Tractors	G4	15		5.56E+02	1.96E+02	1.29E+02	5.14E-03	3.68E-03	3.89E-01	1.74E-05	2.40E-04	6.11E-01	4.10E-04	2.74E-04	7.44E-01	246
Lawn & Garden Tractors	G4	15		3.61E+03	1.44E+02	9.61E+01	4.63E-03	3.10E-03	2.92E-01	1.29E-05	1.64E-04	4.51E-01	3.22E-04	2.47E-04	5.56E-01	184
Lawn & Garden Tractors	G4	25		2.19E+02	7.72E+01	8.08E+01	3.19E-03	2.18E-03	2.52E-01	9.44E-06	1.46E-04	3.73E-01	2.01E-04	1.70E-04	4.38E-01	145
Lawn & Garden Tractors	G4	25		1.42E+03	5.69E+01	6.02E+01	2.90E-03	1.74E-03	1.88E-01	6.97E-06	9.99E-05	2.75E-01	1.53E-04	1.55E-04	3.26E-01	108
Lawn & Garden Tractors	G4	50		3.17E+00	9.03E-01	1.42E+00	3.23E-05	6.20E-05	1.18E-03	1.42E-07	8.96E-07	1.17E-02	3.51E-06	1.72E-06	1.28E-02	4
Wood Splitters	G4	5		1.87E+02	6.57E+01	1.98E+01	2.15E-03	5.35E-04	4.82E-02	3.71E-06	3.15E-04	1.07E-01	8.78E-05	1.15E-04	1.37E-01	45
Wood Splitters	G4	5		4.66E+03	1.41E+01	5.40E+00	4.52E-04	1.14E-04	1.75E-02	7.92E-07	4.10E-05	2.29E-02	1.83E-05	2.42E-05	2.91E-02	10
Chippers/Stump Grinders	G4	15		2.63E+00	9.09E+00	7.97E+00	6.40E-04	4.63E-04	2.39E-02	1.05E-06	3.10E-04	3.69E-02	3.23E-05	3.38E-05	4.77E-02	16
Chippers/Stump Grinders	G4	15		4.70E+00	2.12E-01	1.97E-01	1.55E-05	7.28E-06	6.25E-04	2.46E-08	6.40E-06	8.62E-04	6.12E-07	8.30E-07	1.07E-03	0
Chippers/Stump Grinders	G4	25		1.49E+01	5.16E+01	7.64E+01	6.28E-03	3.98E-03	2.36E-01	8.70E-06	2.88E-03	3.43E-01	2.29E-04	3.32E-04	4.21E-01	139
Chippers/Stump Grinders	G4	25		2.66E+01	1.20E+00	1.85E+00	1.38E-04	6.10E-05	5.96E-03	2.02E-07	5.92E-05	7.99E-03	4.26E-06	7.36E-06	9.46E-03	3
Commercial Turf Equipment	G4	15		1.97E+02	4.31E+02	2.39E+02	1.41E-02	9.87E-03	7.19E-01	3.20E-05	6.27E-04	1.12E+00	1.00E-03	7.48E-04	1.45E+00	479
Commercial Turf Equipment	G4	25		9.69E+01	2.12E+02	2.09E+02	1.17E-02	8.71E-03	6.49E-01	2.42E-05	5.33E-04	9.55E-01	6.73E-04	6.22E-04	1.18E+00	390
Commercial Turf Equipment	G4	50		3.91E+01	7.85E+01	1.32E+02	4.33E-03	6.25E-03	1.94E-01	1.15E-05	7.26E-05	9.48E-01	3.40E-04	2.31E-04	1.06E+00	350
Commercial Turf Equipment	G4	120		2.58E-01	5.19E-01	1.27E+00	6.03E-06	3.53E-05	3.32E-04	1.13E-07	9.09E-07	1.17E-02	2.16E-06	3.21E-07	1.24E-02	4
Other Lawn & Garden Equipment	G4	5		1.73E+02	3.24E+01	6.87E+00	6.24E-04	1.54E-04	1.80E-02	1.23E-06	9.37E-05	3.56E-02	3.24E-05	3.33E-05	4.64E-02	15
Other Lawn & Garden Equipment	G4	5		5.29E+03	6.23E+01	1.61E+01	1.60E-03	3.59E-04	5.16E-02	2.36E-06	1.35E-04	6.85E-02	6.76E-05	8.56E-05	9.12E-02	30
Other Lawn & Garden Equipment	G4	15		7.67E+01	1.44E+01	6.67E+00	2.71E-04	1.94E-04	2.01E-02	9.03E-07	1.26E-05	3.17E-02	2.52E-05	1.45E-05	3.98E-02	13
Other Lawn & Garden Equipment	G4	15		2.35E+03	2.77E+01	1.35E+01	7.22E-04	4.26E-04	4.23E-02	1.73E-06	2.10E-05	6.08E-02	5.18E-05	3.86E-05	7.77E-02	26
Other Lawn & Garden Equipment	G4	25		1.62E+00	3.04E-01	3.08E-01	1.24E-05	8.46E-06	9.60E-04	3.60E-08	5.64E-07	1.42E-03	7.84E-07	6.60E-07	1.68E-03	1
Other Lawn & Garden Equipment	G4	25		5.00E+01	5.89E-01	6.22E-01	3.25E-05	1.73E-05	1.99E-03	6.96E-08	9.47E-07	2.75E-03	1.56E-06	1.74E-06	3.27E-03	1
Other Lawn & Garden Equipment	G4	50		1.17E-01	1.96E-02	4.27E-02	1.04E-06	2.07E-06	3.47E-05	4.30E-09	2.71E-08	3.54E-04	9.60E-08	5.58E-08	3.85E-04	0
Other Lawn & Garden Equipment	G4	120		2.82E-01	4.71E-02	2.63E-01	4.43E-06	1.96E-05	9.23E-05	2.30E-08	1.84E-07	2.38E-03	4.74E-07	2.37E-07	2.53E-03	1
Leaf Blowers/Vacuums	D	15		1.88E-01	6.18E-02	8.48E-03	9.79E-08	6.88E-07	5.67E-07	1.44E-09	3.18E-08	9.28E-05	0.00E+00	8.84E-09	9.30E-05	0
Leaf Blowers/Vacuums	D	120		1.64E-01	5.40E-02	1.20E-01	1.65E-06	1.24E-05	7.83E-06	1.54E-08	8.66E-07	1.31E-03	0.00E+00	1.49E-07	1.32E-03	0
Leaf Blowers/Vacuums	D	250		4.70E-02	1.54E-02	7.00E-02	4.17E-07	5.95E-06	1.57E-06	8.71E-09	1.59E-07	7.74E-04	0.00E+00	3.76E-08	7.74E-04	0
Lawn & Garden Tractors	D	15		4.53E+02	6.76E+02	2.86E+02	3.36E-03	2.36E-02	1.92E-02	4.88E-05	1.16E-03	3.14E+00	0.00E+00	3.03E-04	3.14E+00	1,040
Lawn & Garden Tractors	D	25		3.55E+02	5.29E+02	3.44E+02	4.60E-03	2.94E-02	1.56E-02	4.79E-05	1.36E-03	3.77E+00	0.00E+00	4.15E-04	3.78E+00	1,253
Chippers/Stump Grinders	D	25		2.11E-01	2.69E-01	2.47E-01	3.27E-06	2.07E-05	1.12E-05	3.44E-08	8.29E-07	2.71E-03	0.00E+00	2.95E-07	2.71E-03	1
Chippers/Stump Grinders	D	120		5.82E+00	7.42E+00	2.58E+01	4.33E-04	2.89E-03	1.82E-03	3.30E-06	2.36E-04	2.82E-01	0.00E+00	3.91E-05	2.82E-01	94
Chippers/Stump Grinders	D	175		3.99E-01	5.08E-01	3.05E+00	3.47E-05	3.05E-04	1.79E-04	3.77E-07	1.56E-05	3.35E-02	0.00E+00	3.13E-06	3.35E-02	11
Chippers/Stump Grinders	D	250		9.39E-02	1.20E-01	1.20E+00	9.12E-06	1.11E-04	2.97E-05	1.50E-07	3.40E-06	1.33E-02	0.00E+00	8.22E-07	1.33E-02	4
Chippers/Stump Grinders	D	500		8.69E-01	1.11E+00	1.24E+01	8.48E-05	1.03E-03	3.25E-04	1.34E-06	3.26E-05	1.37E-01	0.00E+00	7.65E-06	1.37E-01	45
Chippers/Stump Grinders	D	750		9.86E-01	1.26E+00	3.38E+01	2.37E-04	2.90E-03	8.88E-04	3.75E-06	9.04E-05	3.73E-01	0.00E+00	2.14E-05	3.74E-01	124
Chippers/Stump Grinders	D	1000		1.88E+00	2.39E+00	9.18E+01	8.43E-04	1.05E-02	3.06E-03	1.02E-05	3.03E-04	1.01E+00	0.00E+00	7.60E-05	1.01E+00	335
Commercial Turf Equipment	D	15		1.14E+01	3.34E+01	1.47E+01	1.67E-04	1.17E-03	9.83E-04	2.51E-06	4.69E-05	1.61E-01	0.00E+00	1.51E-05	1.61E-01	53
Commercial Turf Equipment	D	25		2.15E+02	6.28E+02	4.14E+02	5.48E-03	3.46E-02	1.87E-02	5.76E-05	1.32E-03	4.54E+00	0.00E+00	4.94E-04	4.55E+00	1,507
Other Lawn & Garden Equipment	D	15		1.64E-01	1.95E-01	1.09E-01	1.24E-06	8.73E-06	7.27E-06	1.85E-08	3.67E-07	1.19E-03	0.00E+00	1.12E-07	1.19E-03	0
Other Lawn & Garden Equipment	D	25		2.35E-02	2.79E-02	2.07E-02	2.74E-07	1.74E-06	9.34E-07	2.88E-09	6.94E-08	2.27E-04	0.00E+00	2.47E-08	2.27E-04	0
				298,708	29,878	5,823	0.927	0.244	12.032	0.001	0.033	35.538	0.024	0.056	44.043	14,584
				Population	Activity	Consumption	lbs/day					Tons/Day				MTons/Year
				14,532	1,454	283	90	24	1,171	0	3	2	0	0	2	709

As a percent of 2010 Total Population w/SOI San Mateo County 721,500 Menlo Park: 35,100 Percent 5%

Source: Association of Bay Area Governments (ABAG). 2009. Subregional Study Area Population, Housing, Employment Forecasts.

Light Commercial						Tons/Day										MTons/Year
Equipment	Fuel	MaxHP	MY	Population	Activity	Consumption	ROG Exhaust	NOX Exhaust	CO Exhaust	SO2 Exhaust	PM Exhaust	CO2 Exhaust	N2O Exhaust	CH4 Exhaust	CO2e	CO2e
Generator Sets	G2	2		6.20E+01	2.28E+01	1.42E+00	3.66E-04	5.61E-05	3.19E-03	3.02E-07	2.91E-05	7.34E-03	1.65E-05	2.27E-05	1.29E-02	4
Generator Sets	G2	2		4.87E+01	1.20E+01	8.13E-01	2.48E-04	2.92E-05	1.92E-03	1.60E-07	1.64E-05	3.88E-03	8.63E-06	1.54E-05	6.87E-03	2
Generator Sets	G2	15		6.25E-01	2.30E-01	1.31E-01	8.34E-06	5.19E-06	3.59E-04	2.74E-08	3.34E-07	6.66E-04	5.50E-07	5.19E-07	8.47E-04	0
Generator Sets	G2	15		4.76E-01	1.18E-01	7.24E-02	1.15E-05	2.49E-06	2.00E-04	1.41E-08	4.38E-07	3.41E-04	2.69E-07	7.12E-07	4.40E-04	0
Pumps	G2	2		2.46E+02	1.74E+02	9.29E+00	1.38E-03	4.35E-04	1.76E-02	2.34E-06	1.99E-04	5.68E-02	1.28E-04	8.58E-05	9.83E-02	33
Pumps	G2	2		1.94E+02	9.19E+01	5.58E+00	1.29E-03	2.32E-04	1.21E-02	1.24E-06	1.15E-04	3.00E-02	6.77E-05	8.00E-05	5.27E-02	17
Pumps	G2	15		6.64E+01	4.69E+01	2.39E+01	1.57E-03	1.18E-03	6.48E-02	5.05E-06	1.03E-03	1.23E-01	1.20E-04	9.77E-05	1.62E-01	54
Pumps	G2	15		5.22E+01	2.48E+01	1.30E+01	1.27E-03	6.01E-04	3.54E-02	2.67E-06	5.43E-04	6.48E-02	6.18E-05	7.91E-05	8.56E-02	28
Pumps	G2	25		8.04E-01	5.68E-01	6.28E-01	4.13E-05	2.83E-05	1.75E-03	1.30E-07	2.64E-05	3.15E-03	2.09E-06	2.57E-06	3.85E-03	1
Pumps	G2	25		6.25E-01	2.97E-01	3.31E-01	2.23E-05	1.44E-05	9.27E-04	6.79E-08	1.38E-05	1.65E-03	1.07E-06	1.38E-06	2.01E-03	1
Generator Sets	G4	5		8.13E+02	2.99E+02	7.82E+01	1.49E-02	3.23E-03	1.99E-01	1.33E-05	1.32E-03	3.85E-01	4.59E-04	7.95E-04	5.44E-01	180
Generator Sets	G4	5		6.39E+02	1.58E+02	4.39E+01	8.72E-03	1.69E-03	1.19E-01	7.03E-06	6.88E-04	2.04E-01	2.41E-04	4.66E-04	2.88E-01	95
Generator Sets	G4	15		2.23E+03	8.22E+02	5.17E+02	3.80E-02	2.28E-02	1.57E+00	6.79E-05	1.25E-03	2.38E+00	2.10E-03	2.03E-03	3.07E+00	1,018
Generator Sets	G4	15		1.76E+03	4.34E+02	2.88E+02	2.75E-02	1.14E-02	9.03E-01	3.59E-05	6.52E-04	1.26E+00	1.08E-03	1.47E-03	1.62E+00	537
Generator Sets	G4	25		1.20E+03	4.42E+02	6.00E+02	4.26E-02	2.47E-02	1.86E+00	6.84E-05	1.42E-03	2.70E+00	1.64E-03	2.27E-03	3.26E+00	1,078
Generator Sets	G4	25		9.43E+02	2.33E+02	3.29E+02	2.90E-02	1.19E-02	1.04E+00	3.62E-05	7.40E-04	1.43E+00	8.24E-04	1.55E-03	1.72E+00	568
Generator Sets	G4	50		4.00E+02	1.26E+02	2.90E+02	7.62E-03	1.43E-02	2.56E-01	2.87E-05	1.81E-04	2.36E+00	6.45E-04	4.07E-04	2.57E+00	851
Generator Sets	G4	120		7.72E+01	2.43E+01	1.30E+02	2.39E-03	9.90E-03	4.99E-02	1.13E-05	9.07E-05	1.17E+00	2.42E-04	1.28E-04	1.25E+00	413
Generator Sets	G4	175		7.29E+00	2.29E+00	2.07E+01	2.25E-04	1.78E-03	6.41E-03	1.88E-06	1.51E-05	1.89E-01	3.22E-05	1.20E-05	1.99E-01	66
Pumps	G4	5		2.89E+02	2.04E+02	3.55E+01	6.15E-03	2.43E-03	7.59E-02	6.90E-06	1.59E-04	2.00E-01	3.35E-04	3.28E-04	3.10E-01	103
Pumps	G4	5		2.27E+02	1.08E+02	2.13E+01	4.23E-03	1.19E-03	5.32E-02	3.64E-06	2.05E-04	1.06E-01	1.69E-04	2.26E-04	1.63E-01	54
Pumps	G4	15		3.13E+02	2.21E+02	1.24E+02	1.00E-02	6.92E-03	3.72E-01	1.65E-05	4.84E-03	5.77E-01	6.07E-04	5.36E-04	7.77E-01	257
Pumps	G4	15		2.46E+02	1.17E+02	6.71E+01	5.86E-03	3.50E-03	2.04E-01	8.69E-06	2.52E-03	3.05E-01	3.13E-04	3.13E-04	4.08E-01	135
Pumps	G4	25		8.01E+01	5.66E+01	6.93E+01	5.48E-03	3.49E-03	2.12E-01	7.96E-06	2.63E-03	3.14E-01	2.23E-04	2.92E-04	3.90E-01	129
Pumps	G4	25		6.29E+01	2.99E+01	3.69E+01	3.01E-03	1.77E-03	1.14E-01	4.21E-06	1.39E-03	1.66E-01	1.15E-04	1.61E-04	2.05E-01	68
Pumps	G4	50		3.19E+01	1.93E+01	4.40E+01	1.20E-03	1.96E-03	4.02E-02	4.34E-06	2.73E-05	3.57E-01	9.11E-05	6.41E-05	3.86E-01	128
Pumps	G4	120		4.05E+01	2.45E+01	1.49E+02	2.82E-03	9.57E-03	5.65E-02	1.30E-05	1.04E-04	1.34E+00	2.19E-04	1.51E-04	1.41E+00	468
Pumps	G4	175		1.22E+00	7.38E-01	6.69E+00	7.13E-05	4.95E-04	2.15E-03	6.05E-07	4.85E-06	6.09E-02	8.78E-06	3.81E-06	6.37E-02	21
Air Compressors	G4	5		1.04E+02	1.61E+02	3.64E+01	6.06E-03	2.67E-03	7.30E-02	7.38E-06	6.97E-05	2.14E-01	3.16E-04	3.23E-04	3.19E-01	105
Air Compressors	G4	5		8.19E+01	8.52E+01	1.92E+01	3.20E-03	1.41E-03	3.85E-02	3.90E-06	3.68E-05	1.13E-01	1.67E-04	1.71E-04	1.68E-01	56
Air Compressors	G4	15		5.28E+01	8.17E+01	3.25E+01	2.60E-03	1.89E-03	9.67E-02	4.32E-06	1.27E-03	1.52E-01	1.91E-04	1.39E-04	2.14E-01	71
Air Compressors	G4	15		4.15E+01	4.31E+01	1.71E+01	1.34E-03	9.76E-04	5.10E-02	2.28E-06	6.71E-04	8.01E-02	9.97E-05	7.16E-05	1.12E-01	37
Air Compressors	G4	25		7.11E+00	1.10E+01	1.10E+01	8.99E-04	5.72E-04	3.36E-02	1.26E-06	4.16E-04	4.96E-02	3.97E-05	4.79E-05	6.29E-02	21
Air Compressors	G4	25		5.60E+00	5.82E+00	5.79E+00	4.66E-04	2.97E-04	1.77E-02	6.65E-07	2.20E-04	2.62E-02	2.08E-05	2.49E-05	3.32E-02	11
Air Compressors	G4	50		1.21E+01	1.61E+01	3.56E+01	1.44E-03	1.90E-03	4.21E-02	3.31E-06	2.08E-05	2.72E-01	8.41E-05	7.69E-05	3.00E-01	99
Air Compressors	G4	120		3.94E+01	5.22E+01	2.01E+02	6.06E-03	1.63E-02	1.09E-01	1.69E-05	1.35E-04	1.75E+00	4.32E-04	3.24E-04	1.89E+00	625
Air Compressors	G4	175		2.65E+00	3.51E+00	2.42E+01	3.57E-04	2.36E-03	8.35E-03	2.17E-06	1.74E-05	2.19E-01	4.37E-05	1.91E-05	2.33E-01	77
Welders	G4	15		2.04E+02	1.16E+02	6.88E+01	6.40E-03	3.50E-03	2.11E-01	8.79E-06	2.52E-03	3.08E-01	3.12E-04	3.42E-04	4.12E-01	136
Welders	G4	25		7.37E+02	4.19E+02	3.85E+02	3.25E-02	1.85E-02	1.19E+00	4.36E-05	1.44E-02	1.72E+00	1.38E-03	1.74E-03	2.19E+00	724
Welders	G4	50		6.35E+01	3.61E+01	8.92E+01	2.88E-03	4.70E-03	8.53E-02	8.70E-06	5.48E-05	7.16E-01	1.97E-04	1.54E-04	7.80E-01	258
Welders	G4	120		6.48E+01	3.69E+01	1.26E+02	2.95E-03	1.01E-02	5.39E-02	1.09E-05	8.70E-05	1.12E+00	2.81E-04	1.57E-04	1.21E+00	402
Welders	G4	175		4.46E+00	2.54E+00	1.54E+01	1.98E-04	1.43E-03	4.89E-03	1.39E-06	1.11E-05	1.40E-01	2.84E-05	1.06E-05	1.49E-01	49
Pressure Washers	G4	5		2.19E+02	8.04E+01	2.93E+01	4.67E-03	1.33E-03	6.60E-02	5.58E-06	5.52E-04	1.62E-01	1.55E-04	2.49E-04	2.15E-01	71
Pressure Washers	G4	5		1.72E+02	4.25E+01	1.80E+01	3.46E-03	7.06E-04	4.77E-02	2.95E-06	2.87E-04	8.54E-02	8.18E-05	1.85E-04	1.15E-01	38
Pressure Washers	G4	15		1.95E+02	7.17E+01	4.39E+01	3.22E-03	1.93E-03	1.33E-01	5.76E-06	1.06E-04	2.02E-01	1.80E-04	1.72E-04	2.61E-01	87
Pressure Washers	G4	15		1.53E+02	3.79E+01	2.45E+01	2.33E-03	9.66E-04	7.66E-02	3.04E-06	5.53E-05	1.07E-01	9.25E-05	1.24E-04	1.38E-01	46
Pressure Washers	G4	25		3.66E+01	1.35E+01	2.16E+01	1.46E-03	8.89E-04	6.69E-02	2.47E-06	5.08E-05	9.75E-02	5.47E-05	7.81E-05	1.16E-01	38
Pressure Washers	G4	25		2.88E+01	7.11E+00	1.18E+01	9.96E-04	4.32E-04	3.72E-02	1.31E-06	2.65E-05	5.15E-02	2.76E-05	5.32E-05	6.12E-02	20
Pressure Washers	G4	50		3.57E+00	1.12E+00	2.89E+00	7.17E-05	1.28E-04	2.38E-03	2.91E-07	1.83E-06	2.39E-02	5.59E-06	3.83E-06	2.57E-02	9
Generator Sets	C4	120		5.74E+00	1.81E+00	1.13E+01	8.95E-06	5.91E-04	2.38E-03	0.00E+00	6.75E-06	7.59E-02	0.00E+00	7.50E-05	7.75E-02	26
Generator Sets	C4	175		4.76E+00	1.50E+00	1.64E+01	1.03E-05	8.56E-04	2.85E-03	0.00E+00	9.84E-06	1.11E-01	0.00E+00	8.64E-05	1.12E-01	37
Gas Compressors	C4	50		8.93E-01	2.08E+01	7.11E+01	4.04E-05	1.47E-03	7.17E-03	0.00E+00	3.74E-05	4.88E-01	0.00E+00	3.39E-04	4.95E-01	164
Gas Compressors	C4	120		1.85E+00	4.30E+01	4.16E+02	2.21E-04	8.69E-03	1.15E-01	0.00E+00	2.13E-04	2.74E+00	0.00E+00	1.85E-03	2.78E+00	921
Gas Compressors	C4	175		2.98E-01	6.93E+00	1.07E+02	6.15E-05	2.33E-03	2.33E-02	0.00E+00	5.69E-05	7.14E-01	0.00E+00	5.16E-04	7.25E-01	240
Gas Compressors	C4	250		2.38E-01	5.54E+00	1.11E+02	4.73E-05	2.25E-03	2.68E-02	0.00E+00	6.55E-05	7.36E-01	0.00E+00	3.97E-04	7.44E-01	246
Gas Compressors	C4	500		2.08E-01	4.85E+00	1.56E+02	6.66E-05	3.17E-03	3.78E-02	0.00E+00	9.22E-05	1.04E+00	0.00E+00	5.59E-04	1.05E+00	347
Generator Sets	D	15		1.50E+02	1.39E+02	6.48E+01	1.06E-03	7.22E-03	4.80E-03	1.10E-05	4.13E-04	7.08E-01	0.00E+00	9.59E-05	7.10E-01	235
Generator Sets	D	25		1.10E+02	1.02E+02	8.17E+01	1.38E-03	8.18E-03	4.74E-03	1.13E-05	4.74E-04	8.94E-01	0.00E+00	1.24E-04	8.97E-01	297
Generator Sets	D	50		1.34E+02	1.24E+02	1.75E+02	5.59E-03	1.82E-02	1.65E-02	2.45E-05	1.51E-03	1.90E+00	0.00E+00	5.05E-04	1.91E+00	632
Generator Sets	D	120		2.04E+02	1.88E+02	6.71E+02	1.08E-02	7.38E-02	4.62E-02	8.61E-05	5.77E-03	7.34E+00	0.00E+00	9.71E-04	7.36E+00	2,436
Generator Sets	D	175		1.20E+01	1.11E+01	7.20E+01	7.71E-04	7.05E-03	4.11E-03	8.89E-06	3.44E-04	7.90E-01	0.00E+00	6.96E-05	7.91E-01	262
Generator Sets	D	250		6.73E+00	6.22E+00	5.98E+01	4.08E-04	5.39E-03	1.38E-03	7.43E-06	1.51E-04	6.61E-01	0.00E+00	3.68E-05	6.61E-01	219
Generator Sets	D	500		1.50E+01	1.38E+01	2.11E+02	1.29E-03	1.72E-02	5.16E-03	2.29E-05	4.99E-04	2.33E+00	0.00E+00	1.16E-04	2.33E+00	772
Generator Sets	D	750		9.30E+00	8.60E+00	2.12E+02	1.34E-03	1.77E-02	5.17E-03	2.35E-05	5.09E-04	2.34E+00	0.00E+00	1.21E-04	2.34E+00	774
Generator Sets	D	9999		2.42E+00	2.24E+00	1.06E+02	9.27E-04	1.18E-02	3.31E-03	1.18E-05	3.33E-04	1.17E+00	0.00E+00	8.37E-05	1.17E+00	389
Pumps	D	15		1.13E+02	1.24E+02	4.23E+01	8.04E-04	4.80E-03	3.13E-03	7.17E-06	3.22E-04	4.61E-01	0.00E+00	7.26E-05	4.63E-01	153
Pumps	D	25		3.37E+01	3.71E+01	3.31E+01	6.95E-04	3.31E-03	1.91E-03	4.59E-06	2.10E-04	3.62E-01	0.00E+00	6.27E-05	3.63E-01	120
Pumps	D	50		5.87E+01	6.47E+01	1.03E+02	3.51E-03	1.08E-02	1.01E-02	1.44E-05	9.26E-04	1.11E+00	0.00E+00	3.17E-04	1.12E+00	370
Pumps	D	120		1.15E+02	1.27E+02	4.52E+02	7.51E-03	5.05E-02	3.16E-02	5.80E-05	4.06E-03	4.94E+00	0.00E+00	6.78E-04	4.96E+00	1,641
Pumps	D	175		1.25E+01	1.37E+01	8.77E+01	9.76E-04	8.71E-03	5.07E-03	1.08E-05	4.37E-04	9.61E-01	0.00E+00	8.81E-05	9.63E-01	319
Pumps	D	250		8.97E+00	9.89E+00	9.02E+01	6.41E-04	8.24E-03	2.11E-03	1.12E-05	2.36E-04	9.95E-01	0.00E+00	5.78E-05	9.97E-01	330
Pumps	D	500		1.77E-01	1.95E-01	3.05E+00	1.95E-05	2.51E-04	7.67E-05	3.31E-07	7.48E-06	3.37E-02	0.00E+00	1.76E-06	3.37E-02	11
Pumps	D	750		2.95E-02	3.25E-02	8.41E-01	5.53E-06	7.13E-05	2.11E-05	9.33E-08	2.09E-06	9.28E-03	0.00E+00	4.99E-07	9.29E-03	3
Pumps	D	9999		6.49E-01	7.16E-01	4.40E+01	3.92E-04	4.93E-03	1.40E-03	4.87E-06	1.40E-04	4.85E-01	0.00E+00	3.54E-05	4.85E-01	161
Air Compressors	D	15		1.53E+00	3.42E+00	1.13E+00	2.15E-05	1.29E-04	8.38E-05	1.92E-07	8.63E-06	1.23E-02	0.00E+00	1.94E-06	1.24E-02	4
Air Compressors	D	25		3.04E+00	6.78E+00	4.48E+00	9.41E-05	4.48E-04	2.59E-04	6.21E-07	2.85E-05	4.89E-02	0.00E+00	8.49E-06	4.91E-02	16
Air Compressors	D	50		2.76E+01	6.16E+01	6.39E+01	2.92E-03	7.02E-03	7.88E-03	8.86E-06	7.02E-04	6.85E-01	0.00E+00	2.64E-04	6.91E-01	229
Air Compressors	D	120		1.84E+02	4.10E+02	8.83E+02	1.73E-02	1.06E-01	6.66E-02	1.13E-04	9.63E-03	9.62E+00	0.00E+00	1.56E-03	9.66E+00	3,197
Air Compressors	D	175		6.97E+00	1.55E+01	6.27E+01	8.37E-04	6.69E-03	3.91E-03	7.73E-06	3.80E-04	6.87E-01	0.00E+00	7.55E-05	6.88E-01	228
Air Compressors	D	250		9.80E+00	2.19E+01	1.30E+02	1.11E-03	1.28E-02	3.27E-03	1.61E-05	3.94E-04	1.43E+00	0.00E+00	1.00E-04	1.43E+00	475
Air Compressors	D	500		1.28E+01	2.85E+01	2.99E+02	2.33E-03	2.60E-02	7.96E-03	3.24E-05	8.46E-04	3.30E+00	0.00E+00	2.11E-04	3.30E+00	1,094
Air Compressors	D	750		4.78E+00	1.07E+01	1.73E+02	1.37E-03	1.55E-02	4.60E-03	1.92E-05	4.97E-04	1.91E+00	0.00E+00	1.24E-04	1.91E+00	633
Air Compressors	D	1000		1.18E-01	2.63E-01	5.81E+00	5.70E-05	6.88E-04	1.98E-04	6.43E-07	2.01E-05	6.40E-02	0.00E+00	5.14E-06	6.41E-02	21
Welders	D	15		5.10E+01	8.97E+01	2.55E+01	4.85E-04	2.89E-03	1.89E-03	4.33E-06	1.94E-04	2.78E-01	0.00E+00	4.38E-05	2.79E-01	92
Welders	D	25		4.49E+01	7.89E+01	4.07E+01	8.56E-04	4.07E-03	2.36E-03	5.65E-06	2.59E-04	4.45E-01	0.00E+00	7.72E-05	4.47E-01	148
Welders	D	50		1.38E+02	2.43E+02	2.93E+02	1.22E-02	3.16E-02	3.35E-02	4.07E-05	3.01E-03	3.15E+00	0.00E+00	1.10E-03	3.17E+00	1,051
Welders	D	120		1.07E+02	1.89E+02	3.41E+02	6.32E-03	3.99E-02	2.50E-02	4.37E-05	3.48E-03	3.72E+00	0.00E+00	5.70E-04	3.73E+00	1,237
Welders	D	175		5.31E-01	9.35E-01	4.18E+00	5.25E-05	4.36E-04	2.54E-04	5.16E-07	2.37E-05	4.58E-02	0.00E+00	4.73E-06	4.59E-02	15
Welders	D	250		1.18E-01	2.08E-01	1.12E+00	9.02E-06	1.07E-04	2.75E-05	1.39E-07	3.25E-06	1.24E-02	0.00E+00	8.13E-07	1.24E-02	4
Welders	D	500		2.95E-01	5.19E-01	3.94E+00	2.87E-05	3.37E-04	1.03E-04	4.27E-07	1.07E-05	4.35E-02	0.00E+00	2.59E-06	4.35E-02	14
Pressure Washers	D	15		6.97E+00	2.76E+00	6.18E-01	1.01E-05	6.89E-05	4.58E-05	1.05E-07	3.93E-06	6.75E-03	0.00E+00	9.14E-07	6.77E-03	2
Pressure Washers	D	25		1.62E+00	6.44E-01	2.10E-01	3.54E-06	2.10E-05	1.22E-05	2.92E-08	1.22E-06	2.30E-03	0.00E+00	3.20E-07	2.31E-03	1
Pressure Washers	D	50		3.22E+00	1.28E+00	8.38E-01	2.10E-05	8.46E-05	6.70E-05	1.18E-07	6.28E-06	9.12E-03	0.00E+00	1.89E-06	9.16E-03	3
Pressure Washers	D	120		1.33E+00	5.27E-01	5.79E-01	8.28E-06	6.09E-05	3.81E-05	7.43E-08	4.34E-06	6.34E-03	0.00E+00	7.47E-07	6.35E-03	2
				13,866	7,242	9,858	0.384	0.740	10.239	0.001	0.078	82.274	0.014	0.027	87.171	28,864
				Population	Activity	Consumption	lbs/day					Tons/Day					MTons/Year
				1,177	615	837	65	126	1,739	0	13	7	0	0	7	**2,450**

As a percent of 2010 Total Population w/SOI San Mateo County 346,320 Menlo Park: 29,400 Percent 8%

Source: Association of Bay Area Governments (ABAG). 2009. Subregional Study Area Population, Housing, Employment Forecasts.

ICLEI – CACP (2009)

COMMUNITY INVENTORY RESULTS

NOTES:

ENERGY OUTPUTS ADJUSTED FOR N_2O AND CH_4

WASTE REPLACED WITH WARM 2012 MODEL & ADJUSTED FOR 75% LANDFILL RECOVERY

TRANSPORTATION MODELED WITH EMFAC2011

Community Greenhouse Gas Emissions in 2012
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Residential						
Menlo Park, CA						
Residential - City + SOI						
Electricity	24,392	0	0	24,392	0	90,837,961
Natural Gas	47,645	90	4,489	47,767	0	263,047,137
Subtotal Residential - City + SOI	72,037	90	4,489	72,160	0	353,885,098

Note: PG&E Energy Coefficient based on 3-year Average (2008-2006) to estimate Business-as-Usual (BAU) emission rates. Results in output (outside CCAP) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012 based on three year average 2008-2010. Adjusted for energy use from increase in population from City and SOI in 2012.

Subtotal Residential	72,037	90	4,489	72,160	0	353,885,098
Commercial						
Menlo Park, CA						
City						
Electricity	1,135	0	0	1,135	0	4,227,114
Natural Gas	755	1	71	757	0	4,169,361
Subtotal City	1,890	1	71	1,892	0	8,396,475

Note: PG&E Energy Coefficient based on 3-year Average (2008-2010) to estimate Business-as-Usual (BAU) emission rates. Results in output (outside CCAP) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012 based on three year average 2008-2010. Assumes City energy use similar to 2008 energy use for the City

Nonresidential - City + SOI						
Electricity	78,029	0	0	78,029	0	290,580,925
Natural Gas	75,503	142	7,113	75,696	0	416,849,576
Subtotal Nonresidential - City + S(	153,532	142	7,113	153,725	0	707,430,501

Note: PG&E Energy Coefficient based on 3-year Average (2008-2010) to estimate Business-as-Usual (BAU) emission rates. Results in output (outside CCAP) adjusted for CH4 and N2O from purchased electricity. Includes commercial and industrial.

Source: PG&E 2012 based on three year average 2008-2010. Adjusted for energy use from increase in employment from City and SOI in 2012.

NonResidential - Direct Access						
Carbon Dioxide	20,234	0	0	20,234	0	0
Subtotal NonResidential - Direct A	20,234	0	0	20,234	0	0

Note: Energy Coefficient based on 3-year Average (2008-2010) Grid emission factors to estimate Business-as-Usual (BAU) emission rates. Because

Community Greenhouse Gas Emissions in 2012
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)

CCAP is using PG&E energy factors, direct access electricity (53,615,450 kwh) entered in as CO2e (20,234 MT)

Source: PG&E 2012 direct access energy based on three year average 2008-2010. Adjusted for energy use from increase in employment from City and SOI in 2012.

Subtotal Commercial	175,656	144	7,185	175,851	0	715,826,976

Waste

Menlo Park, CA

Waste Generation - City + SOI Committment Method — *Disposal Method - Managed Landfill*

Paper Products	0	0	423,110	8,885	0
Food Waste	0	0	214,578	4,506	0
Plant Debris	0	0	115,318	2,422	0
Wood or Textiles	0	0	115,595	2,427	0
Subtotal Waste Generation - City	0	0	868,601	18,241	0

EPA's WARM model has been updated and has been used in the inventory (WARM2012) instead of CCAP.

Source: Waste disposal for Menlo Park based on CalRecycle 2008 disposal rates and adjusted for 2012 population and employment. Includes waste + ADC (alternative daily cover).

Source: Waste type based on CalRecycle 2008 Waste Characterization Study. Note: differences in CO2 totals may also occur because of additional categories in WARM2012.

Note: Reported data (outside CCAP) includes a 75 percent reduction from fugitive GHG emissions captured within the landfill's Landfill Gas Capture System. The landfill gas capture system is assumed to have an efficiency of 75%. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.1. Because the landfill gas captured is not under the jurisdiction of Menlo Park, the landfill gas emissions from the capture system are not included in Menlo Park's inventory. Only fugitive sources of GHG emissions from landfill are included.

Subtotal Waste	0	0	868,601	18,241	0

Other

Menlo Park, CA

Marsh Road Landfill

Methane	0	0	1,350,000	28,350	0
Subtotal Marsh Road Landfill	0	0	1,350,000	28,350	0

March Road Landfill is located within the corporate boundaries of Menlo Park but ceased operations in 1984. CO2 emissions generated from waste-in-place (WIP) are biogenic in nature and not included. Methane emissions from WIP are identified in the 2005 Climate Action Plan. Landfill gas in 2005 was based on a landfill gas capture rate of 65.20% and 5 million metric tons of WIP. Per the 2005 CAP, in 2020 there will be less waste in place (4.7 million metric tons) and emissions would decrease 6% from baseline. The methane rate was revised in the 2011 update to the CAP based on data avialble from Fortistar (operator). Because the data input is no longer available, an approximation of total CH4 for 2005 and 2008 is based onthe Bayfront Park Landfill Emissions Table of page 41 of the CAP Assessment Report while 2012 is assumed to be the same as 2008 and 2020 and 2035

Community Greenhouse Gas Emissions in 2012
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)

are forecasted based on the anticipated 6 percent decrease in WIP from 2008.

OFFROAD2007

Carbon Dioxide	16,606	0	0	16,606	0	
Subtotal OFFROAD2007	16,606	0	0	16,606	0	

Source: OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Construction is estimated based on housing permit data for Menlo Park from ABAG. Daily construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays.

Water/Wastewater - City + SOI

Carbon Dioxide	3,187	0	0	3,187	0	
Subtotal Water/Wastewater - City	3,187	0	0	3,187	0	

Source: Energy-related CO2 emissions from water and wastewater is based on the California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California using average 2006-2008 PG&E energy coefficients.

Source: Fugitive emissions from wastewater are based on California Air Resources Board (CARB). 2010, May. Local Government Operations Protocol (LGOP), Version 1.1. The LGOP protocol provides default values for all the terms except the Nitrogen Load, which is assumed to be 40 mg of N per Liter of wastewater effluent based on USEPA methodology outlined in the CalEEMod program manual. South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. User's Manual. USEPA. 2008. Page 8-12. USEPA cites Metcalf & Eddy, Inc., 1991, "Wastewater Engineering: Treatment Disposal, and Reuse," 3rd Ed. McGraw Hill Publishing.

Source: Water demand for the City + SOI is based on the Water Supply Assessment conducted for the Housing Element Update. For 2012, it is assumed that total demand is 7,794 AFY (acre-feet/year). Wastewater is assumed to be 45 percent of total water use.

Subtotal Other	19,793	0	1,350,000	48,143	0	
Total	267,486	233	2,230,275	314,394	0	1,069,712,075

Community Greenhouse Gas Emissions in 2020
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Residential						
Menlo Park, CA						
Residential Energy BAU - City + SOI						
Electricity	26,092	0	0	26,092	0	97,167,444
Natural Gas	50,965	96	4,802	51,095	0	281,375,928
Subtotal Residential Energy BAU	77,057	96	4,802	77,188	0	378,543,372

Notes: PG&E Energy Coefficient based on a 3-year Average (2008-2010) to estimate business as usual (BAU) emission rates. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012 based on a three year average (2008-2010). Adjusted for energy use from and increase in population n the City + SOI in 2020.

Subtotal Residential	77,057	96	4,802	77,188	0	378,543,372
Commercial						
Menlo Park, CA						
City BAU						
Electricity	1,208	0	0	1,208	0	4,496,842
Natural Gas	803	2	76	805	0	4,435,405
Subtotal City BAU	2,011	2	76	2,013	0	8,932,247

Notes: PG&E Energy Coefficient based on a 3-year Average (2008-2010) to estimate business as usual (BAU) emission rates. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012 based on a three year average (2008-2010). City (Municipal) energy forecast in energy use projected based on increase in service population (employees + residents)

NonResidential - Direct Access						
Carbon Dioxide	21,396	0	0	21,396	0	0
Subtotal NonResidential - Direct A	21,396	0	0	21,396	0	0

Notes: Direct Access Energy Coefficient based on a 3-year Average (2008-2010) of eGrid emission factors to estimate business as usual (BAU) emission rates. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity. Direct Access electricity (56,696,135 kwh) entered as CO2e (21,396 MT) because PG&E coefficients are entered in the CACP model.

Source: PG&E 2012 based on a three year average (2008-2010). Adjusted for energy use from and increase in employment in the City + SOI in 2020.

Nonresidential BAU - City + SOI						
Electricity	82,512	0	0	82,512	0	307,277,386

Community Greenhouse Gas Emissions in 2020
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Natural Gas	79,841	150	7,522	80,046	0	440,801,301
Subtotal Nonresidential BAU - Cit	162,353	150	7,522	162,558	0	748,078,687

Notes: PG&E Energy Coefficient based on a 3-year Average (2008-2010) to estimate business as usual (BAU) emission rates. Includes commercial, industrial. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012 based on a three year average (2008-2010). Adjusted for energy use from and increase in employment in the City + SOI in 2020.

Subtotal Commercial	185,760	152	7,598	185,967	0	757,010,934

Waste

Menlo Park, CA

Waste Generation BAU - City _ SOI Committment Method — *Disposal Method - Managed Landfill*

Paper Products	0	0	450,113	9,452	0
Food Waste	0	0	228,272	4,794	0
Plant Debris	0	0	122,678	2,576	0
Wood or Textiles	0	0	122,972	2,582	0
Subtotal Waste Generation BAU -	0	0	924,034	19,405	0

EPA's WARM model has been updated and has been used in the inventory (WARM2012) instead of CCAP.

Source: Waste disposal for Menlo Park is based on CalRecycle 2008 Disposal Rates and adjusted for 2020 population and employment. Includes waste + ADC (alternative daily cover).

Source: Waste type based on CalRecycle 2008 Waste Characterization Study. Note: differences in CO2 total may also occur because of additional categories in WARM2012.

Note: Reported data (outside CCAP results) includes a 75 percent reduction from fugitive GHG emissions captured within the landfill's Landfill Gas Capture System. The landfill gas capture system is assumed to have an efficiency of 75%. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.1. Because the landfill gas captured is not under the jurisdiction of Menlo Park, the landfill gas emissions from the capture system are not included in Menlo Park's inventory. Only fugitive sources of GHG emissions from landfill are included.

Subtotal Waste	0	0	924,034	19,405	0	

Other

Menlo Park, CA

Marsh Road Landfill - WIP

Methane	0	0	1,269,000	26,649	0	
Subtotal Marsh Road Landfill - WI	0	0	1,269,000	26,649	0	

March Road Landfill is located within the corporate boundaries of Menlo Park but ceased operations in 1984. CO2 emissions generated from waste-in-place (WIP) are biogenic in nature and not included. Methane emissions from WIP are identified in the 2005 Climate Action Plan. Landfill gas in 2005 was based on a landfill gas capture rate of 65.20% and 5 million metric tons of WIP. Per the 2005 CAP, in 2020 there will be less waste in place (4.7

Community Greenhouse Gas Emissions in 2020
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)

million metric tons) and emissions would decrease 6% from baseline. The methane rate was revised in the 2011 update to the CAP based on data avialble from Fortistar (operator). Because the data input is no longer available, an approximation of total CH4 for 2005 and 2008 is based onthe Bayfront Park Landfill Emissions Table of page 41 of the CAP Assessment Report while 2012 is assumed to be the same as 2008 and 2020 and 2035 are forecasted based on the anticipated 6 percent decrease in WIP from 2008.

OFFROAD2007 BAU

Carbon Dioxide	17,585	0	0	17,585	0	
Subtotal OFFROAD2007 BAU	17,585	0	0	17,585	0	

Source: OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Construction is estimated based on housing permit data for Menlo Park from ABAG. Daily construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays.

Water/Wastewater BAU - City + SOI

Carbon Dioxide	3,411	0	0	3,411	0	
Subtotal Water/Wastewater BAU -	3,411	0	0	3,411	0	

Source: Energy-related CO2 emissions from water and wastewater is based on California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California using average 2006-2008 (BAU) PG&E energy coefficients.

Source: Fugitive emissions from wastewater are based on California Air Resources Board (CARB). 2010, May. Local Government Operations Protocol (LGOP), Version 1.1. The LGOP protocol provides default values for all the terms except the Nitrogen Load, which is assumed to be 40 mg of N per Liter of wastewater effluent based on USEPA methodology outlined in the CalEEMod program manual. South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. User's Manual. USEPA. 2008. Page 8-12. USEPA cites Metcalf & Eddy, Inc., 1991, "Wastewater Engineering: Treatment Disposal, and Reuse," 3rd Ed. McGraw Hill Publishing.

Source: Water demand for the City + SOI is based on the Water Supply Assessment conducted for the Housing Element Update and the SBX7-7 per capita target water use. For 2020, it is assumed that the total water demand is 8,342 AFY (acre-feet/year). Wastewater is assumed to be 45 percent of total water use.

Subtotal Other	20,996	0	1,269,000	47,645	0	
Total	283,813	248	2,205,434	330,204	0	1,135,554,306

Community Greenhouse Gas Emissions in 2021
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Residential						
Menlo Park, CA						
Residential 2020 ABAU - City + SOI						
Electricity	12,782	0	0	12,782	0	97,167,444
Natural Gas	50,965	96	4,802	51,095	0	281,375,928
Subtotal Residential 2020 ABAU -	63,746	96	4,802	63,877	0	378,543,372

Note: PG&E Energy Coefficient for the adjusted business as usual (ABAU) for 2020. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: PG&E 2012 based on a three year average (2008-2010). Adjusted for energy use from an increase in population from City in SOI in 2020.

Subtotal Residential	63,746	96	4,802	63,877	0	378,543,372
Commercial						
Menlo Park, CA						
City 2020 ABAU						
Electricity	592	0	0	592	0	4,496,842
Natural Gas	803	2	76	805	0	4,435,405
Subtotal City 2020 ABAU	1,395	2	76	1,397	0	8,932,247

Note: PPG&E Energy Coefficient for the adjusted business as usual (ABAU) for 2020. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: PG&E 2012, based on a three year average (2008-2012). Adjusted for energy use from an increase in service population (residents + employees) in the City and SOI in 2020.

NonResidential - Direct Access

Carbon Dioxide	16,945	0	0	16,945	0	0
Subtotal NonResidential - Direct A	16,945	0	0	16,945	0	0

Note: Energy Coefficient for the adjusted business as usual (ABAU) for 2020 based on reductions from 33% RPS. Direct Access electricity (56,696,135 kwh) is input as CO2e (16,945 MT) because electricity coefficient for PG&E are in the CACP model.

Source: PG&E 2012 based on a three year average (2008-2010). Adjusted for energy use from an increase in employment in the City in SOI in 2020.

NonResidential 2020 ABAU - City + SOI

Electricity	40,420	0	0	40,420	0	307,277,386

Community Greenhouse Gas Emissions in 2021
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Natural Gas	79,841	150	7,522	80,046	0	440,801,301
Subtotal NonResidential 2020 AB	120,261	150	7,522	120,466	0	748,078,687

Note: PG&E Energy Coefficient for the adjusted business as usual (ABAU) for 2020. Includes commercial and industrial. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: PG&E 2012, based on a three year average (2008-2012). Adjusted for energy use from an increase in employment in the City in SOI in 2020.

Subtotal Commercial	138,601	152	7,598	138,808	0	757,010,934

Waste

Menlo Park, CA

Waste 2020 ABAU - City +SOI Committment Method — *Disposal Method - Managed Landfill*

Paper Products	0	0	450,113	9,452	0
Food Waste	0	0	228,272	4,794	0
Plant Debris	0	0	122,678	2,576	0
Wood or Textiles	0	0	122,972	2,582	0
Subtotal Waste 2020 ABAU - City	0	0	924,034	19,405	0

EPA's WARM model has been updated and has been used in the inventory (WARM2012) instead of CCAP.

Source: Waste disposal for the City of Menlo Park is based on CalRecycle 2008 disposal rates and adjusted for the 2020 population and employment. Includes waste + ADC (alternative daily cover).

Source: Waste type based on CalRecycle's 2008 Waste Characterization Study. Note: differences in CO2 total may also occur because of additional categories in WARM2012.

Note: Reported data (outside of CCAP) includes 75 percent reduction in fugitive GHG emissions from fugutive GHG emissions captured within the landfill's Landfill Gas Capture System. The landfill gas capture system is assumed to have a landfill gas capture efficiency of 75%. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.1. Because the landfill gas captured is not under the jurisdiction of Menlo Park, the landfill gas emissions from the capture system are not included in Menlo Park's inventory. Only fugitive sources of GHG emissions from landfill are included.

Subtotal Waste	0	0	924,034	19,405	0	

Other

Menlo Park, CA

Marsh Landfill 2020 ABAU - WIP

Methane	0	0	1,269,000	26,649	0	
Subtotal Marsh Landfill 2020 ABA	0	0	1,269,000	26,649	0	

March Road Landfill is located within the corporate boundaries of Menlo Park but ceased operations in 1984. CO2 emissions generated from waste-in-

Community Greenhouse Gas Emissions in 2021
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)

place (WIP) are biogenic in nature and not included. Methane emissions from WIP are identified in the 2005 Climate Action Plan. Landfill gas in 2005 was based on a landfill gas capture rate of 65.20% and 5 million metric tons of WIP. Per the 2005 CAP, in 2020 there will be less waste in place (4.7 million metric tons) and emissions would decrease 6% from baseline. The methane rate was revised in the 2011 update to the CAP based on data avialble from Fortistar (operator). Because the data input is no longer available, an approximation of total CH4 for 2005 and 2008 is based onthe Bayfront Park Landfill Emissions Table of page 41 of the CAP Assessment Report while 2012 is assumed to be the same as 2008 and 2020 and 2035 are forecasted based on the anticipated 6 percent decrease in WIP from 2008.

OFFROAD2007 ABAU - City + SOI

Carbon Dioxide	15,826	0	0	15,826	0	
Subtotal OFFROAD2007 ABAU -	15,826	0	0	15,826	0	

Source: OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Construction is estimated based on housing permit data for Menlo Park from ABAG. Daily construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. The adjusted business as usual (ABAU) includes a 10 percent reduction in GHG emissions from the Low Carbon Fuel Standard (LCFS).

Water/Wastewater 2020 ABAU - City + SOI

Carbon Dioxide	1,883	0	0	1,883	0	
Subtotal Water/Wastewater 2020 A	1,883	0	0	1,883	0	

Source: Energy-related CO2 emissions from water and wastewater is based on the California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California. PG&E Energy Coefficient for the adjusted business as usual (ABAU) for 2020. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: Fugitive emissions from wastewater are based on the California Air Resources Board (CARB). 2010, May. Local Government Operations Protocol (LGOP), Version 1.1. The LGOP protocol provides default values for all the terms except the Nitrogen Load, which is assumed to be 40 mg of N per Liter of wastewater effluent based on USEPA methodology outlined in the CalEEMod program manual. South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. User's Manual. USEPA. 2008. Page 8-12. USEPA cites Metcalf & Eddy, Inc., 1991, "Wastewater Engineering: Treatment Disposal, and Reuse," 3rd Ed. McGraw Hill Publishing.

Source: Water demand for the CIty + SOI is based on the Water Supply Assessment conducted for the Housing Element Update. For 2012, it is assumed that the total demand is 8,342 AFY (acre-feet/year). Wastewater generation is assumed to be 45 percent of total water use.

Subtotal Other	17,709	0	1,269,000	44,358	0	
Total	220,056	248	2,205,434	266,447	0	1,135,554,306

Community Greenhouse Gas Emissions in 2035
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Residential						
Menlo Park, CA						
Residential BAU 2035 - City + SOI						
Electricity	28,814	0	0	28,814	0	107,304,505
Natural Gas	56,282	106	5,303	56,426	0	310,730,690
Subtotal Residential BAU 2035 - C	85,096	106	5,303	85,240	0	418,035,195

Note: PG&E Energy Coefficient basedon a 3-year Average (2008-2010) to estimate Business as Usual (BAU) emission rates. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012, based on a three year average (2008-2010). Adjusted for energy use from an increase in population in the City + SOI in 2035. Does not include reductions in building energy use from cycle updates to Title 24.

Subtotal Residential	85,096	106	5,303	85,240	0	418,035,195
Commercial						
Menlo Park, CA						
City 2035 BAU						
Electricity	1,332	0	0	1,332	0	4,960,730
Natural Gas	886	2	83	889	0	4,892,954
Subtotal City 2035 BAU	2,218	2	83	2,221	0	9,853,684

Note: PG&E Energy Coefficient basedon a 3-year Average (2008-2010) to estimate Business as Usual (BAU) emission rates. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012, based on a three year average (2008-2010). City (Municipal) energy adjusted for energy use from an increase in service population (residents + employment) in the City + SOI in 2035.

NonResidential - Direct Access						
Carbon Dioxide	23,576	0	0	23,576	0	0
Subtotal NonResidential - Direct A	23,576	0	0	23,576	0	0

Note: Energy Coefficient basedon a 3-year Average (2008-2010) of eGrid emission factors to estimate Business as Usual (BAU) emission rates. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity. Direct Access electricity (62,472,419 kwh) entered as CO2e (23,576 MT) because electricity coefficient is based on PG&E carbon intensity in CACP model.

Source: PG&E 2012, based on a three year average (2008-2010). Adjusted for energy use from an increase in employment the City + SOI in 2035. Does not include reductions in building energy use from cycle updates to Title 24.

Community Greenhouse Gas Emissions in 2035
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
NonResidential 2035 BAU - City + SOI						
Electricity	90,919	0	0	90,919	0	338,583,251
Natural Gas	87,975	166	8,289	88,201	0	485,710,759
Subtotal NonResidential 2035 BAU	178,894	166	8,289	179,120	0	824,294,010

Note: PG&E Energy Coefficient basedon a 3-year Average (2008-2010) to estimate Business as Usual (BAU) emission rates. Includes commercial and industrial. Results in output (outside of CCAP results) adjusted for CH4 and N2O from purchased electricity.

Source: PG&E 2012, based on a three year average (2008-2010). Adjusted for energy use from an increase in employment the City + SOI in 2035. Does not include reductions in building energy use from cycle updates to Title 24.

Subtotal Commercial	204,688	167	8,372	204,916	0	834,147,693

Waste

Menlo Park, CA

Waste 2035 BAU - Committment Method City + SOI						*Disposal Method - Managed Landfill*
Paper Products	0	0	496,537	10,427	0	
Food Waste	0	0	251,816	5,288	0	
Plant Debris	0	0	135,331	2,842	0	
Wood or Textiles	0	0	135,656	2,849	0	
Subtotal Waste 2035 BAU - Comm	0	0	1,019,339	21,406	0	

EPA's WARM Model has been updated and has been used in the inventory (WARM2012) instead of CCAP.

Source: Waste disposal for Menlo Park is based on CalRecycle 2008 disposal Rates and adjusted for population and employment. Includes waste + ADC (alternative daily cover).

Source: Waste type is based on CalRecycle 2008 Waste Characterization Study. Note: differences in CO2 total (WARM2012) may also occur becuase of additional categories in WARM2012.

Note: Reported data (outside CCAP results in WARM2012) include a 75 percent reduction of fugitive GHG emissions. Fugitive GHG emissions are captured within the landfill's Landfill Gas Capture System. The landfill gas capture system is assumed to have an efficiency of 75%. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.1. Because the landfill gas captured is not under the jurisdiction of Menlo Park, the landfill gas emissions from the capture system are not included in Menlo Park's inventory. Only fugitive sources of GHG emissions from landfill are included.

Subtotal Waste	0	0	1,019,339	21,406	0	

Community Greenhouse Gas Emissions in 2035
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Other						
Menlo Park, CA						
Marsh Landfill 2035 - WIP						
Methane	0	0	1,269,000	26,649	0	
Subtotal Marsh Landfill 2035 - WI	0	0	1,269,000	26,649	0	

March Road Landfill is located within the corporate boundaries of Menlo Park but ceased operations in 1984. CO2 emissions generated from waste-in-place (WIP) are biogenic in nature and not included. Methane emissions from WIP are identified in the 2005 Climate Action Plan. Landfill gas in 2005 was based on a landfill gas capture rate of 65.20% and 5 million metric tons of WIP. Per the 2005 CAP, in 2020 there will be less waste in place (4.7 million metric tons) and emissions would decrease 6% from baseline. The methane rate was revised in the 2011 update to the CAP based on data avialble from Fortistar (operator). Because the data input is no longer available, an approximation of total CH4 for 2005 and 2008 is based onthe Bayfront Park Landfill Emissions Table of page 41 of the CAP Assessment Report while 2012 is assumed to be the same as 2008 and 2020 and 2035 are forecasted based on the anticipated 6 percent decrease in WIP from 2008.

OFFROAD2007 - 2035 BAU City + SOI						
Carbon Dioxide	19,382	0	0	19,382	0	
Subtotal OFFROAD2007 - 2035 B	19,382	0	0	19,382	0	

Source: OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Construction is estimated based on housing permit data for Menlo Park from ABAG. Daily construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays.

Water/Wastewater 2035 BAU - City + SOI						
Carbon Dioxide	3,790	0	0	3,790	0	
Subtotal Water/Wastewater 2035	3,790	0	0	3,790	0	

Source: Energy-related CO2 emissions from water and wastewater are based on California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California using average 2006--2008 (BAU) PG&E energy coefficients.

Source: Fugitive emissions from wastewater are based on California Air Resources Board (CARB). 2010, May. Local Government Operations Protocol (LGOP), Version 1.1. The LGOP protocol provides default values for all the terms except the Nitrogen Load, which is assumed to be 40 mg of N per Liter of wastewater effluent based on USEPA methodology outlined in the CalEEMod program manual. South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. User's Manual. USEPA. 2008. Page 8-12. USEPA cites Metcalf & Eddy, Inc., 1991, "Wastewater Engineering: Treatment Disposal, and Reuse," 3rd Ed. McGraw Hill Publishing.

Source: Water demand for the City + SOI is based on the Water Supply Assessment for the Housing Element Update and the SBx7-7 per capita target water use. For 2035, it is assumed that the total water demand is 9,627 AFY (acre-feet/year). Wastewater is assumed to be 45 percent of total water use.

Subtotal Other	23,172	0	1,269,000	49,821	0	
Total	312,956	273	2,302,014	361,383	0	1,252,182,888

Community Greenhouse Gas Emissions in 2036
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Residential						
Menlo Park, CA						
Residential 2035 ABAU - City + SOI						
Electricity	14,115	0	0	14,115	0	107,304,505
Natural Gas	56,282	106	5,303	56,426	0	310,730,690
Subtotal Residential 2035 ABAU -	70,397	106	5,303	70,541	0	418,035,195

Source: PG&E Energy Coefficient for the adjusted Business as Usual (ABAU) for 2020. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. The 2035 ABAU uses PG&E's 2020 Energy Coefficient, estimated by PG&E. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: PG&E 2012, based on a three year average (2008-2010). Adjusted for energy use from and increase in population in the City + SOI in 2035.

Subtotal Residential	70,397	106	5,303	70,541	0	418,035,195
Commercial						
Menlo Park, CA						
City 2035 ABAU						
Electricity	653	0	0	653	0	4,960,730
Natural Gas	886	2	83	889	0	4,892,954
Subtotal City 2035 ABAU	1,539	2	83	1,541	0	9,853,684

Source: PG&E Energy Coefficient for the adjusted Business as Usual (ABAU) for 2020. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. The 2035 ABAU uses PG&E's 2020 Energy Coefficient, estimated by PG&E. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: PG&E 2012, based on a three year average (2008-2010). City (Municipal) energy adjusted for energy use from and increase in service population (residents + Employees) in the City + SOI in 2035.

NonResidential - Direct Access

Carbon Dioxide	18,671	0	0	18,671	0	0
Subtotal NonResidential - Direct A	18,671	0	0	18,671	0	0

Source: Energy Coefficient for the adjusted Business as Usual (ABAU) includes reduction from 33% RPS. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. Direct access electricity (62,472,419 kwh) entered as CO2e (18,671 MT) because PG&E energy coefficient included in the CACP model.

Source: PG&E 2012, based on a three year average (2008-2010). Adjusted for energy use from and increase in employment in the City + SOI in 2035.

Community Greenhouse Gas Emissions in 2036
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
NonResidential 2035 ABAU - City + SOI						
Electricity	44,538	0	0	44,538	0	338,583,251
Natural Gas	87,975	166	8,289	88,201	0	485,710,759
Subtotal NonResidential 2035 ABA	132,513	166	8,289	132,739	0	824,294,010

Source: PG&E Energy Coefficient for the adjusted Business as Usual (ABAU) for 2020. Includes commercial and industrial. Results in output (outside of CCAP) adjusted for CH4 and N2O from purchased electricity. The 2035 ABAU uses PG&E's 2020 Energy Coefficient, estimated by PG&E. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: PG&E 2012, based on a three year average (2008-2010). Adjusted for energy use from and increase in employment in the City + SOI in 2035.

Subtotal Commercial	152,723	167	8,372	152,951	0	834,147,693

Waste

Menlo Park, CA

Waste 2035 ABAU - Committment Method City + SOI						*Disposal Method - Managed Landfill*
Paper Products	0	0	496,537	10,427	0	
Food Waste	0	0	251,816	5,288	0	
Plant Debris	0	0	135,331	2,842	0	
Wood or Textiles	0	0	135,656	2,849	0	
Subtotal Waste 2035 ABAU - Com	0	0	1,019,339	21,406	0	

EPA's WARM model has been updated and has been used in the inventory (WARM2012) instead of CCAP.

Source: Waste disposal for Menlo Park is based on CalRecycle 2008 disposal rates and adjusted for 2035 population and employment. Includes waste + ADC (alternative daily cover).

Source: Waste type is based on CalRecycle 2008 Waste Characterization Study. Note: differences in CO2 in WARM2012 model may also occur because of additional categories in WARM2012.

Note: Reported data in WARM2012 (outside of CCAP) includes a 75 percent reduction of fugitive GHG emissions captured within the landfill's Landfill Gas Capture System. The landfill gas capture system is assumed to have a landfill gas capture efficiency of 75%. The Landfill gas capture efficiency is based on the California Air Resources Board's (CARB) Local Government Operations Protocol (LGOP), Version 1.1. Because the landfill gas captured is not under the jurisdiction of Menlo Park, the landfill gas emissions from the capture system are not included in Menlo Park's inventory. Only fugitive sources of GHG emissions from landfill are included.

Subtotal Waste	0	0	1,019,339	21,406	0	

Community Greenhouse Gas Emissions in 2036
Detailed Report

Scope 1 + Scope 2 + Scope 3

	CO_2 (tonnes)	N_2O (kg)	CH_4 (kg)	Equiv CO_2 (tonnes)	Bio CO_2 (tonnes)	Energy (kWh)
Other						
Menlo Park, CA						
Marsh Road Landfill 2035 ABAU - WIP						
Methane	0	0	815,408	17,124	0	
Subtotal Marsh Road Landfill 203	0	0	815,408	17,124	0	

March Road Landfill is located within the corporate boundaries of Menlo Park but ceased operations in 1984. CO2 emissions generated from waste-in-place (WIP) are biogenic in nature and not included. Methane emissions from WIP are identified in the 2005 Climate Action Plan. Landfill gas in 2005 was based on a landfill gas capture rate of 65.20% and 5 million metric tons of WIP. Per the 2005 CAP, in 2020 there will be less waste in place (4.7 million metric tons) and emissions would decrease 6% from baseline. The methane rate was revised in the 2011 update to the CAP based on data avialble from Fortistar (operator). Because the data input is no longer available, an approximation of total CH4 for 2005 and 2008 is based onthe Bayfront Park Landfill Emissions Table of page 41 of the CAP Assessment Report while 2012 is assumed to be the same as 2008 and 2020 and 2035 are forecasted based on the anticipated 6 percent decrease in WIP from 2008.

OFFROAD2007 2035 ABAU - City + SOI						
Carbon Dioxide	17,443	0	0	17,443	0	
Subtotal OFFROAD2007 2035 AB	17,443	0	0	17,443	0	

Source: OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for Menlo Park as a percentage of San Mateo County. Excludes BAAQMD permitted sources. Construction is estimated based on housing permit data for Menlo Park from ABAG. Daily construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. The adjusted business as usual (ABAU) scenario includes a 10 percent reduction in GHG emissions from the Low Carbon Fuel Standard (LCFS).

Water/Wastewater 2035 ABAU - City + SOI						
Carbon Dioxide	2,092	0	0	2,092	0	
Subtotal Water/Wastewater 2035 A	2,092	0	0	2,092	0	

Source: Energy-related CO2 emissions from water and wastewater is based on the California Energy Commission (CEC). 2006, December. Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118. Prepared by Navigant Consulting, Inc. Based on the electricity use for Northern California. The 2035 ABAU uses PG&E's 2020 Energy Coefficient, estimated by PG&E for 2035. The 2020 emissions rate is estimated by PG&E. It includes reductions from 33% Renewable Portfolio Standard (RPS), Cap-and-Trade, and other regulatory reductions for High Global Warming Potential (HGWP) gases such as reductions of SF6.

Source: Fugitive emissions from wastewater are based on California Air Resources Board (CARB). 2010, May. Local Government Operations Protocol (LGOP), Version 1.1. The LGOP protocol provides default values for all the terms except the Nitrogen Load, which is assumed to be 40 mg of N per Liter of wastewater effluent based on USEPA methodology outlined in the CalEEMod program manual. South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. User's Manual. USEPA. 2008. Page 8-12. USEPA cites Metcalf & Eddy, Inc., 1991, "Wastewater Engineering: Treatment Disposal, and Reuse," 3rd Ed. McGraw Hill Publishing.

Source: Water demand for the City + SOI is based on the Water Supply Assessment conducted for the Housing Element Update and the SBx7-7 per capita target water use. For 2035, it is assumed that the total water demand is 9,267 AFY (acre-feet/year). Wastewater is assumed to be 45 percent of total water use.

Subtotal Other	19,535	0	815,408	36,659	0	
Total	242,655	273	1,848,421	281,557	0	1,252,182,888