APPENDIX N

Climate Change Modeling

Help

Bay Area Air Quality Management District Greenhouse Gas Model (BGM) Version: 1.1.9 Beta

Step 1: Enable Macros

Macros must be enabled for this model to operate correctly. The method for enabling macros for this spreadsheet differs depending on the security settings in Excel.

Step 2: Open an Urbemis Project File, or Refresh Urbemis Data

BGM depends on the data and results from an URBEMIS project file. Two URBEMIS files can be specified : a project file and (optionally) a baseline file. To open a file, or to refresh the data in this spreadsheet after an URBEMIS file has been modified, go to the Settings tab by clicking on the Open an URBEMIS Project File link to the right . Select the URBEMIS file(s) that you want to import and hit the refresh data button. Please make sure that the Emfac Database Location is correct before clicking either of the Refresh buttons.

Step 3: Data Entry Options

The bright yellow areas on each tab represent data entry locations, if applicable to your project. In some cases, there are optional data inputs (shown in peach). Some tabs, such as transportation and area sources, do not require any data input, as results are imported directly from URBEMIS. Certain other tabs - electricty & natural gas, water & wastewater, and solid waste - require some minor amount of user input, although most of the information used to estimate emissions is imported from URBEMIS. And for certain tabs, - ag, off-road, refrigerants, and carbon sequestration - the user must enter project specific information to obtain emission estimates.

Step 4: View Results

The Results Tab presents a graphical and tabular view of the results of the Greenhouse Gas Calculator. Both a summary and detailed report are included on the Results tab. The user also has the option of selected project specific mitigation on the Mitigation tab and on the Carbon Sequestration tab.

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LINKS

Assistance provided by:
Rimpo and Associates, Inc.

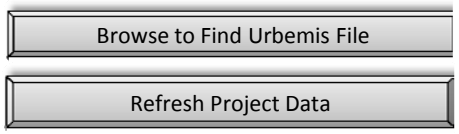
Enter data in yellow cells with values applicable to your project

Enter data in peach cells if you have information specific to your project; these values will be used in place of the default values

Settings

Open an Urbemis Project File

Step 1: Click the Browse button to find the file:
Step 2: Click the Refresh Project button to read the data, make an Urbemis run and import the results:

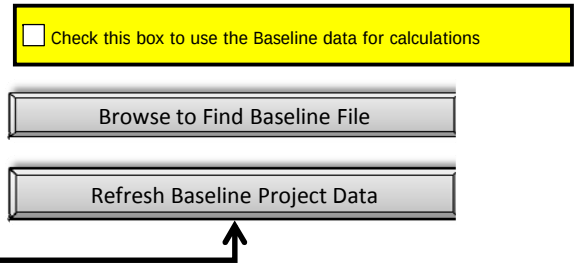


The Urbemis Project File Has Been Changed

Step 1: Make sure the directory path and file name are correct in the Project File Name field.
Step 2: Click the Refresh button to update the data:

Establish a Baseline Run for Comparison

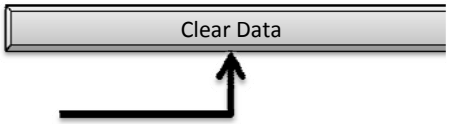
Step 1: Click the Browse button to find the Urbemis Project File representing the baseline:
Step 2: Click the Refresh Baseline button to read the baseline project data, make an Urbemis run and import the results:



Clear All Project and Baseline Data

Step 1: Save the current spreadsheet, as this will cause all of the current data to be lost

Step 2: Click the Clear Data button to reset the spreadsheet



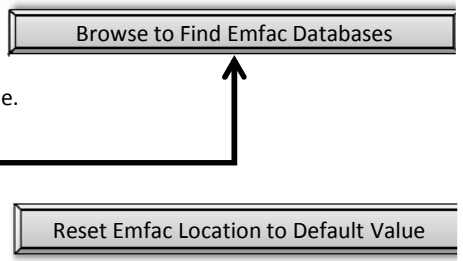
Change the Emfac Data Location

Emfac data files are stored, by default, in a directory Microsoft calls Common Application Data.

This Data location may have been changed in the Urbemis config file.

If the Emfac files cannot be found, use the Browse button to find the databases:

Or, try resetting the Emfac Database Location to its default value:



Current Project File Name

C:\Documents and Settings\leemanw\My Documents\SunCreek\Urbemis\SunCreek Specific Plan- ACS area and op

Project Data Last Refreshed On:

8/17/10 8:22 AM

Project Name:

SunCreek Specific Plan- ACS

ons

Baseline Project File Name

Baseline Data Last Refreshed On:

Baseline Project Name:

Emfac Database Location

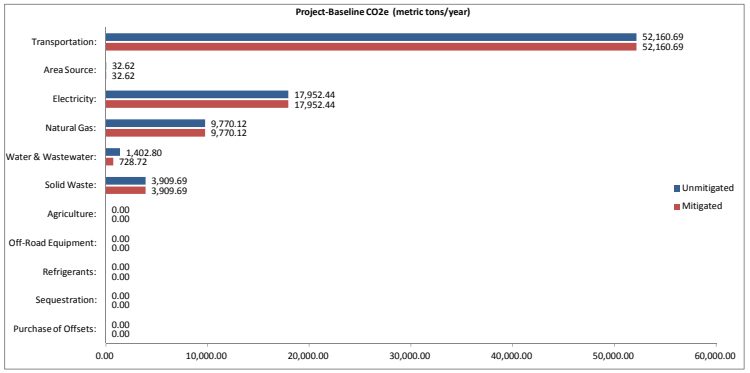
C:\Documents and Settings\leemanw\Application Data\Urbemis\Version9a\Data

Summary Results

Project Name: SunCreek Specific Plan- ACS
Project and Baseline Years: 2030 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	52,160.69	52,160.69
Area Source:	32.62	32.62
Electricity:	17,952.44	17,952.44
Natural Gas:	9,770.12	9,770.12
Water & Wastewater:	1,402.80	728.72
Solid Waste:	3,909.69	3,909.69
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	85,228.36	84,554.28

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline



Detailed Results

Unmitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				52,160.69	61.20%
Area Source:	23.57	0.03	0.03	32.62	0.04%
Electricity:	17,923.75	0.15	0.08	17,952.44	21.06%
Natural Gas:	9,745.15	0.92	0.02	9,770.12	11.46%
Water & Wastewater:	1,400.56	0.01	0.01	1,402.80	1.65%
Solid Waste:	6.83	185.85	N/A	3,909.69	4.59%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				85,228.36	100.00%

Baseline	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				0.00	N/A
Area Source:	0.00	0.00	0.00	0.00	N/A
Electricity:	0.00	0.00	0.00	0.00	N/A
Natural Gas:	0.00	0.00	0.00	0.00	N/A
Water & Wastewater:	0.00	0.00	0.00	0.00	N/A
Solid Waste:	0.00	0.00	N/A	0.00	N/A
Agriculture:	0.00	0.00	0.00	0.00	N/A
Off-Road Equipment:	0.00	0.00	0.00	0.00	N/A
Refrigerants:	N/A	N/A	N/A	0.00	N/A
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				0.00	0.00%

* Several adjustments were made to transportation emissions after they have been imported from URBEMIS.
After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pavley"
regulation. Then, CO2 is converted to CO2e by multiplying by 100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs (from leaking air conditioners)).
Finally, CO2e is adjusted to account for th low carbon fuels rule.

Mitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				52,160.69	61.69%
Area Source:	23.57	0.03	0.00	32.62	0.04%
Electricity:	17,923.75	0.15	0.08	17,952.44	21.23%
Natural Gas:	9,745.15	0.92	0.02	9,770.12	11.55%
Water & Wastewater:	727.56	0.01	0.00	728.72	0.86%
Solid Waste:	6.83	185.85	N/A	3,909.69	4.62%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	0.00	0.00%
Purchase of Offsets:	N/A	N/A	N/A	0.00	0.00%
Total:				84,554.28	100.00%

Mitigation Measures Selected:

Transportation: Go to the following tab: Transp. Detail Mit for a list of the transportation mitigation measures selected (in URBEMIS)

Electricity: The following mitigation measure(s) have been selected to reduce electricity emissions.

Natural Gas: The following mitigation measure(s) have been selected to reduce natural gas emissions.

Water and Wastewater: The following mitigation measure(s) have been selected to reduce water and wastewater emissions.

Solid Waste: The following mitigation measure has been selected to reduce solid waste related GHG emissions.

Ag: No existing mitigation measures available.

Off-Road Equipment: No existing mitigation measures available.

Refrigerants: The following mitigation measure has ben selected to reduce refrigerant emissions:

Carbon Sequestration: Project does not include carbon sequestration through tree planting.

Emission Offsets/Credits: Project does not include purchase of emission offsets/credits.

Transportation

Baseline is Currently: OFF

Target Year:	2030	2011	
Unmitigated Transportation	**Project**	**Baseline**	**Project-Baseline**
Operational Emissions from URBEMIS (CO2 tons/year)	76,048.79	0.00	
Metric Ton Adjustment (CO2 metric tons/year)	69,009.79	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):	53,397.25	0.00	
US EPA Adjustment (CO2e metric tons/year):	56,207.64	0.00	
Low Carbon Fuels Rule Adjustment (CO2e metric tons/year)	52,160.69	0.00	
Total (CO2e metric tons/year):			**52,160.69**

Target Year:
Mitigated Transportation
Operational Vehicles from URBEMIS (CO2 tons/year):
Metric Ton Adjustment (CO2 metric tons/year):
Pavley Regulation Adjustment (CO2 metric tons/year):
US EPA Adjustment (CO2e metric tons/year):
Low Carbon Fuels Adjustment (CO2e metric tons/year):
Total (CO2e metric tons/year):

The BGM User's Manual describes in detail each step used to convert URBEMIS's transportation CO2 emissions to total CO2e.
These steps include converting from English to Metric units, adjusting for the Pavley Rule, converting CO2 to CO2e, and adjusting for the Low Carbon Fuels Rule.

Reference

U.S. EPA assumption that GHG emissions from other pollutants - CH4, N20, and hydrofluorcarbons (HFCs) from leaking air conditioners account for 5 percent of emissions from vehicles, after accounting for global warming

Jump to the Following Transportation Related Tabs:

Transportation Detail for Operational Mitigation
Land Use Detail

	Don't Need to Adjust this amt	Unadjusted Amount Affected by Pavley	Adjusted	Adusted	Adusted	Adusted
	Not Affected by Pavley	LDA/ LDT1/ LDT2/ MDV	LDA	LDT1	LDT2	MDV
Pavley Calculations - Project Unmitigated	10,861.33	58,148.46	20,185.36	6,410.30	10,823.08	5,117.18
Pavley Calculations - Baseline Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00
Pavley Calculations - Project Mitigated	10,861.33	58,148.46	20,185.36	6,410.30	10,823.08	5,117.18
Pavley Calculations - Baseline Mitigated	0.00	0.00	0.00	0.00	0.00	0.00

Pavley Adjustment

Year	% LDA CO2 Emissions	% LDT1 CO2 Emissions	% LDT2 CO2 Emissions	% MDV CO2 Emissions	% LDA/LDT1/LDT2/MDV	% everything else
2009	41.59%	12.33%	19.61%	9.71%	83.26%	16.74%
2010	41.72%	12.39%	19.54%	9.61%	83.26%	16.74%
2011	41.83%	12.45%	19.50%	9.50%	83.27%	16.73%
2012	41.89%	12.50%	19.47%	9.40%	83.27%	16.73%
2013	41.94%	12.56%	19.46%	9.32%	83.28%	16.72%
2014	41.98%	12.62%	19.46%	9.27%	83.33%	16.67%
2015	42.00%	12.67%	19.47%	9.24%	83.38%	16.62%
2016	42.05%	12.76%	19.50%	9.23%	83.54%	16.46%
2017	42.02%	12.81%	19.51%	9.21%	83.55%	16.45%
2018	41.98%	12.84%	19.52%	9.21%	83.55%	16.45%
2019	41.95%	12.87%	19.53%	9.21%	83.57%	16.43%
2020	41.92%	12.89%	19.55%	9.22%	83.59%	16.41%
2025	41.92%	12.96%	19.67%	9.28%	83.82%	16.18%
2030	42.15%	13.03%	19.76%	9.32%	84.26%	15.74%
2035	42.21%	13.11%	19.80%	9.35%	84.47%	15.53%
2040	42.24%	13.14%	19.90%	9.44%	84.72%	15.28%

Low Carbon Fuels Standards

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels	
2010	0.00	0.00	Source:
2011	0.25	0.18	Final Regulation Order
2012	0.50	0.36	Subchapter 10. Climate Change
2013	1.00	0.72	Article 4. Regulations to Achieve Greenhouse Gas Reductions
2014	1.50	1.08	Subarticle 7. Low Carbon Fuel Standard
2015	2.50	1.80	Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel
2016	3.50	2.52	
2017	5.00	3.60	
2018	6.50	4.68	
2019	8.00	5.76	
2020	10.00	7.20	
2021	10.00	7.20	
2022	10.00	7.20	
2023	10.00	7.20	
2024	10.00	7.20	
2025	10.00	7.20	
2026	10.00	7.20	
2027	10.00	7.20	
2028	10.00	7.20	
2029	10.00	7.20	
2030	10.00	7.20	
2031	10.00	7.20	
2032	10.00	7.20	
2033	10.00	7.20	
2034	10.00	7.20	
2035	10.00	7.20	
2036	10.00	7.20	
2037	10.00	7.20	
2038	10.00	7.20	
2039	10.00	7.20	
2040	10.00	7.20	

2030	2011	
Project	**Baseline**	**Project-Baseline**
76,048.79	0.00	
69,009.79	0.00	
53,397.25	0.00	
56,207.64	0.00	
52,160.69	0.00	
		52,160.69

g potentail of each GHG.

Adjusted
4 totaled
42,535.93
0.00
42,535.93
0.00

				12.00	13.00	14.00	15.00	16.00	
% CO2 Reduction - LDA	% CO2 Reduction - LDT1	% CO2 Reduction - LDT2	% CO2 Reduction MDV	LDA					
0.00%	0.00%	0.07%	0.08%	0.0000	0.0000	0.0006	0.0007	0.0013	Step 1 - Figure out year
0.35%	0.25%	0.45%	0.48%	0.0020	0.0022	0.0036	0.0044	0.0122	Step 2- Emissions from HDVs, etc. do not change
1.75%	1.34%	1.31%	1.29%	0.0102	0.0117	0.0106	0.0117	0.0442	Step 3 - Adjust emissions from LDA's, etc. individually
4.07%	3.27%	2.60%	2.44%	0.0237	0.0286	0.0209	0.0221	0.0953	Step 4 - Add Step 2 and Step 3 emissions
6.31%	5.26%	3.88%	3.61%	0.0366	0.0460	0.0313	0.0328	0.1466	
8.48%	7.26%	5.17%	4.83%	0.0492	0.0634	0.0416	0.0438	0.1980	
10.74%	9.38%	6.54%	6.17%	0.0623	0.0819	0.0527	0.0560	0.2529	
12.96%	11.56%	7.94%	7.54%	0.0751	0.1008	0.0639	0.0684	0.3082	
15.03%	13.58%	9.27%	8.88%	0.0871	0.1184	0.0746	0.0806	0.3608	
16.94%	15.43%	10.54%	10.16%	0.0983	0.1345	0.0848	0.0923	0.4099	
18.72%	17.13%	11.74%	11.40%	0.1087	0.1492	0.0945	0.1035	0.4559	
20.37%	18.69%	12.89%	12.59%	0.1183	0.1628	0.1037	0.1143	0.4990	
26.87%	24.86%	17.60%	17.42%	0.1560	0.2164	0.1414	0.1581	0.6719	
30.60%	28.71%	20.63%	20.47%	0.1770	0.2497	0.1655	0.1856	0.7779	
32.38%	31.17%	22.43%	22.29%	0.1871	0.2708	0.1799	0.2021	0.8400	
33.27%	32.61%	23.60%	23.53%	0.1922	0.2832	0.1890	0.2131	0.8775	

Area Source

Baseline is currently: OFF

Unmitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	7.033	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	16.534	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.027	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.029	0.000	
Total (CO2e metric tons/year):	32.621	0.000	
Total (CO2e metric tons/year):			**32.621**

The URBEMIS area source calculations include five separate categories: 1) natural gas fuel combustion, 2) hearth fuel cor
tab imports CO2 emissions calculated by URBEMIS for hearths and landscape maintenance equipment only. BGM then ca
consumer products and architectural coatings categories within URBEMIS do not generate GHG emissions and, conseque
Instead, BGM calculates natural gas use and the resulting CO2 emissions in the Electricity and Natural Gas tab.

Mitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	7.033	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	16.534	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.027	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.029	0.000	
Total (CO2e metric tons/year):	32.621	0.000	
Total (CO2e metric tons/year):			**32.621**

mbustion, 3) landscape maintenance equipment, 4) consumer products, and 5) architectural coatings. This Area Source alculates N2O and CH4 emissions for woodstoves and fireplaces and uses the resulting emissions to calculate CO2e. The ently, are not used by BGM. Also, URBEMIS' estimate of CO2 from natural gas fuel combustion is not used by BGM.

Electricity and Natural Gas

Baseline is currently: OFF

Unmitigated Electricity			
	Project	Baseline	Project-Baseline
CO2 metric tons/year CO2:	17,923.754	0.000	
CH4 metric tons/year CH4:	0.149	0.000	
N2O metric tons/year:	0.082	0.000	
CO2e metric tons/year:	17,952.442	0.000	
CO2e metric tons/year:			**17,952.44**

CO2 metric tons/year CO2:	
CH4 metric tons/year CH4:	
N2O metric tons/year:	
CO2e metric tons/year:	
CO2e metric tons/year:	

Unmitigated Natural Gas			
	Project	Baseline	Project-Baseline
CO2 metric tons/year:	9745.15	0.000	
CH4 metric tons/year:	0.92	0.000	
N2O metric tons/year:	0.02	0.000	
CO2e metric tons/year:	9770.12	0.000	
CO2e metric tons/year:			**9,770.12**

CO2 metric tons/year:	
CH4 metric tons/year:	
N2O metric tons/year:	
CO2e metric tons/year:	
CO2e metric tons/year:	

***** Select Mitigation Measu**

Project Climate Zone Location: ○ Zone 4 ◉ Zone 5

Clear All User Overrides

PROJECT Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)	CO2 (metric tons/year)
Single Family Residential	849.000	6,047.000	5,133.903	7,702.977	2,811.866
Multi Family Residential	3,888.000	3,685.000	14,327.280	35,275.824	12,876.956

PROJECT Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00	0.0000
Elementary School	106.50	586.33	975.54	356.11	0.0030
Junior High School	102.00	561.56	934.32	341.06	0.0028
High School	202.40	1,114.31	1,853.98	676.77	0.0056
Junior College	0.00	0.00		0.00	0.0000
University/College	0.00	0.00		0.00	0.0000
Library	0.00	0.00		0.00	0.0000
Place of Worship	0.00	0.00		0.00	0.0000
City Park	2,502.52	0.00		0.00	0.0000
Racquet Club	0.00	0.00		0.00	0.0000
Racquetball/Health	0.00	0.00		0.00	0.0000
Quality Restaurant	0.00	0.00		0.00	0.0000
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00	0.0000
Fast Food w/Drive Through	0.00	0.00		0.00	0.0000
Fast Food w/o Drive Through	0.00	0.00		0.00	0.0000
Hotel	0.00	0.00		0.00	0.0000
Motel	0.00	0.00		0.00	0.0000
Free-Standing Discount Store	0.00	0.00		0.00	0.0000
Free-Standing Discount Superstore	0.00	0.00		0.00	0.0000
Discount Club	0.00	0.00		0.00	0.0000
Regional Shopping Center	0.00	0.00	0.00	0.00	0.0000
Electronic Superstore	0.00	0.00		0.00	0.0000
Home Improvement Superstore	0.00	0.00		0.00	0.0000
Strip Mall	157.00	1,985.72	2,241.96	818.40	0.0068
Hardware/Paint Store	0.00	0.00		0.00	0.0000
Supermarket	0.00	0.00		0.00	0.0000
Convenience Market	0.00	0.00		0.00	0.0000
Convenience Market w/gas pumps	0.00	0.00		0.00	0.0000
Gasoline Service Station	0.00	0.00		0.00	0.0000
Bank w/Drive Through	0.00	0.00		0.00	0.0000
General Office Building	0.00	0.00		0.00	0.0000
Office Park	0.00	0.00		0.00	0.0000
Government Office Building	6.60	100.64	116.69	42.60	0.0004

Government Civic Center	0.00	0.00		0.00	0.0000
Pharmacy w/Drive Through	0.00	0.00		0.00	0.0000
Pharmacy w/o Drive Through	0.00	0.00		0.00	0.0000
Medical Office Building	0.00	0.00		0.00	0.0000
Hospital	0.00	0.00		0.00	0.0000
Warehouse	0.00	0.00		0.00	0.0000
General Light Industry	0.00	0.00		0.00	0.0000
General Heavy Industry	0.00	0.00		0.00	0.0000
Industrial Park	0.00	0.00		0.00	0.0000
Manufacturing	0.00	0.00		0.00	0.0000

BASELINE Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)	CO2 (metric tons/year)
Single Family Residential	0.000	6,047.000	0.000		0.000
Multi Family Residential	0.000	3,685.000	0.000		0.000

BASELINE Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00	0.0000
Elementary School	0.00	0.00		0.00	0.0000
Junior High School	0.00	0.00		0.00	0.0000
High School	0.00	0.00		0.00	0.0000
Junior College	0.00	0.00		0.00	0.0000
University/College	0.00	0.00		0.00	0.0000
Library	0.00	0.00		0.00	0.0000
Place of Worship	0.00	0.00		0.00	0.0000
City Park	0.00	0.00		0.00	0.0000
Racquet Club	0.00	0.00		0.00	0.0000
Racquetball/Health	0.00	0.00		0.00	0.0000

Quality Restaurant	0.00	0.00		0.00	0.0000
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00	0.0000
Fast Food w/Drive Through	0.00	0.00		0.00	0.0000
Fast Food w/o Drive Through	0.00	0.00		0.00	0.0000
Hotel	0.00	0.00		0.00	0.0000
Motel	0.00	0.00		0.00	0.0000
Free-Standing Discount Store	0.00	0.00		0.00	0.0000
Free-Standing Discount Superstore	0.00	0.00		0.00	0.0000
Discount Club	0.00	0.00		0.00	0.0000
Regional Shopping Center	0.00	0.00		0.00	0.0000
Electronic Superstore	0.00	0.00		0.00	0.0000
Home Improvement Superstore	0.00	0.00		0.00	0.0000
Strip Mall	0.00	0.00		0.00	0.0000
Hardware/Paint Store	0.00	0.00		0.00	0.0000
Supermarket	0.00	0.00		0.00	0.0000
Convenience Market	0.00	0.00		0.00	0.0000
Convenience Market w/gas pumps	0.00	0.00		0.00	0.0000
Gasoline Service Station	0.00	0.00		0.00	0.0000
Bank w/Drive Through	0.00	0.00		0.00	0.0000
General Office Building	0.00	0.00		0.00	0.0000
Office Park	0.00	0.00		0.00	0.0000
Government Office Building	0.00	0.00		0.00	0.0000
Government Civic Center	0.00	0.00		0.00	0.0000
Pharmacy w/Drive Through	0.00	0.00		0.00	0.0000
Pharmacy w/o Drive Through	0.00	0.00		0.00	0.0000
Medical Office Building	0.00	0.00		0.00	0.0000
Hospital	0.00	0.00		0.00	0.0000
Warehouse	0.00	0.00		0.00	0.0000
General Light Industry	0.00	0.00		0.00	0.0000
General Heavy Industry	0.00	0.00		0.00	0.0000
Industrial Park	0.00	0.00		0.00	0.0000
Manufacturing	0.00	0.00		0.00	0.0000

Greenhouse Gas Emission Factors

	CO2	CH4	N2O	
Electricity	804.54	0.0067	0.0037	
Units	lbs CO2/mwh	lbs CH4/mwh	lbs N20/MWH	Source: Climate Action Registry General Reporting F
Natural Gas	53.06	0.005	0.0001	
Units	CO2 (kg CO2/MMBtu)	CH4 (kg/MMBtu)	N2O(kg/MMBtu)	Source: Climate Action Registry General Reporting F

Summary	Climate Zone 4 Summary		Climate Zone 5 Summary	
	Electric (kwh/sf)	Natural Gas (MM Btu/sf)	Electric (kwh/sf)	Natural Gas (MM Btu/sf)
All Commercial	13.64	0.02949	13.19	0.03169
Small Office (<30,000 sf)	17.37	0.00975	14.49	0.02999
Large Office (>= 30,000 sf)	23.51	0.02639	15.25	0.02328
Restaurant	35.97	0.21255	31.41	0.17108
Retail	12.82	0.00301	12.65	0.00551
Food Store	44.34	0.02577	40.26	0.04135
Refrigerated Warehouse	10.12	0.00388	24.86	0.01869
Unrefrigerated Warehouse	4.26	0.00440	4.56	0.00169
School	6.65	0.02271	5.51	0.01958
College	9.75	0.02754	12.70	0.04185
Health	23.03	0.11871	18.40	0.11073
Lodging	9.33	0.04695	10.03	0.03915
Miscellaneous	9.81	0.02965	8.98	0.02724
All Offices	21.35	0.02052	15.14	0.02426
All Warehouses	5.82	0.00426	7.71	0.00433

Mitigated Electricity		
Project	**Baseline**	**Project-Baseline**
17,923.754	0.000	
0.149	0.000	
0.082	0.000	
17,952.442	0.000	
		17,952.44

Mitigated Natural Gas		
Project	**Baseline**	**Project-Baseline**
9745.146	0.000	
0.918	0.000	
0.018	0.000	
9770.124	0.000	
		9,770.12

res on the Mitigation Tab ===> Mitigation

For detailed climate zone map see:
http://capabilities.itron.com/CeusWeb/FCZMap.aspx

CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.0234	0.0129	49.600	42,110.400	31,413.000	1,663.749	0.157	0.003
0.1072	0.0592	22.500	87,480.000	143,856.000	7,619.146	0.718	0.014

N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	Elect Use	Gas Use
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0016	2,085.24	1,964.93	104.07	0.00981	0.00020	975.54	1,964.93
0.0016	1,997.14	1,881.90	99.67	0.00939	0.00019	934.32	1,881.90
0.0031	3,962.94	3,734.28	197.78	0.01864	0.00037	1,853.98	3,734.28
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00	0.00	0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0038	865.43	1,039.34	55.05	0.00519	0.00010	2,241.96	1,039.34
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0002	153.67	107.25	5.68	0.00054	0.00001	116.69	107.25

0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
0.0000	0.00		0.00	0.00000	0.00000	0.00	0.00
						49,101.29	183,996.70
						49,101.29	183,996.70
						49,101.29	183,996.70

CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.0000	0.0000	49.600	0.000		0.000	0.000	0.000
0.0000	0.0000	22.500	0.000		0.000	0.000	0.000

N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000

0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000
0.0000	0.00		0.00	0.00000	0.00000

Protocol, Version 3.1, January, 2009.

Protocol, Version 3.1, January, 2009.

Elec Use	Gas Use	Residential Energy Use from California Statewide Residenti
7,702.98	31,413.00	See also Executive Summary for Natural Gas Use by Buildin
35,275.82	143,856.00	

User Provided Blank Land Use Data: Project Data

Land Use Name	Electricity Use/Year (MWH/Year)

Unmitigated

Mitigated

Mitigated %

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Electricity Use/Year (MWH/Year)

al Appliance Saturation Study, Tables 2-9, 2-13,2-15,2-4,2-5,2-23,2-24
g Age

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Water and Wastewater

Baseline is currently: OFF

Unmitigated Water and Wastewater			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	1400.5605	0.0000	
CH4 metric tons/year:	0.0117	0.0000	
N20 metric tons/year:	0.0064	0.0000	
CO2e metric tons/year:	1402.8022	0.0000	
CO2e metric tons/year:			**1,402.80**

Clear All User Overrides

	User Override of Model Estimates (af/yr)	Model Estimate (af/yr)	Total Gallons/year	Indoor Gallons/Year
Baseline Water Demand		0.00	0	0.00
Project Water Demand	2,523.27	1,310.78	427,183,294	260,581,809.38
Net Increase in Water Demand		1,310.78	427,183,294	260,581,809.38

Houshold Size	
Single Family	Multi-family
2.94	2.65

Land Use Type	**Square feet per e**
1	Warehouse
2	Public Assembly
3	Lodging
4	Food Sales
5	Retail and Service
6	Education
7	Public Order and
8	Food Service
9	Other
10	Health Care
11	Office

PROJECT	
% indoor water use	0.610
% outdoor water use	0.390
Total	1.00

Project Water Demand - Indoor	2714285.04	kwh/year
Project Water Demand - Outdoor	1122485.49	kwh/year
Total	3836770.53	kwh/year

Greenhouse Gas Emission Factors	CO2	CH4	N2O
Electricity	804.54	0.0067	0.0037
Units	#/mwh	#/mwh	#/mwh

from California Cl

Table ES-1. Recommended revised water-energy proxies

	Indoor Uses		Outdoor Uses	
	Northern California kWh/MG	Southern California kWh/MG	Northern California kWh/MG	Southern California kWh/MG
Water Supply and Conveyance	2,117	9,727	2,117	9,727
Water Treatment	111	111	111	111
Water Distribution	1,272	1,272	1,272	1,272
Wastewater Treatment	1,911	1,911	0	0
Regional Total	5,411	13,022	3,500	11,111

from Navigant, 2006

Gallons Per Acre Foot:	325,900.00

Indoor vs. Outdoor Water Use				
	Indoor	Outdoor	Total	
2001	0.64	0.36	1.00	
2002	0.64	0.36	1.00	
2003	0.64	0.36	1.00	LU Type
2004	0.64	0.36	1.00	6
2005	0.64	0.36	1.00	6
2006	0.63	0.37	1.00	6
2007	0.63	0.37	1.00	6
2008	0.63	0.37	1.00	6
2009	0.63	0.37	1.00	6
2010	0.63	0.37	1.00	6
2011	0.63	0.37	1.00	9

2012	0.63	0.37	1.00	2
2013	0.63	0.37	1.00	5
2014	0.63	0.37	1.00	5
2015	0.63	0.37	1.00	8
2016	0.62	0.38	1.00	8
2017	0.62	0.38	1.00	8
2018	0.62	0.38	1.00	8
2019	0.62	0.38	1.00	3
2020	0.62	0.38	1.00	3
2021	0.62	0.38	1.00	5
2022	0.62	0.38	1.00	5
2023	0.62	0.38	1.00	5
2024	0.62	0.38	1.00	5
2025	0.62	0.38	1.00	5
2026	0.61	0.39	1.00	5
2027	0.61	0.39	1.00	5
2028	0.61	0.39	1.00	5
2029	0.61	0.39	1.00	4
2030	0.61	0.39	1.00	4
				4
				9

	Water Use			5
Year	Single Family (gallons a day/ capita)	Multi-family (gallons a day/ capita)	Non-Res (gallons a day/ employee)	11
2001	108.00	75.00	86.00	11
2002	107.79	74.72	85.97	11
2003	107.59	74.45	85.93	11
2004	107.38	74.17	85.90	5
2005	107.17	73.90	85.86	5
2006	106.97	73.62	85.83	10
2007	106.76	73.34	85.79	10
2008	106.55	73.07	85.76	1
2009	106.34	72.79	85.72	1
2010	106.14	72.52	85.69	1
2011	105.93	72.24	85.66	1
2012	105.72	71.97	85.62	1
2013	105.52	71.69	85.59	
2014	105.31	71.41	85.55	
2015	105.10	71.14	85.52	

2016	104.90	70.86	85.48	
2017	104.69	70.59	85.45	
2018	104.48	70.31	85.41	
2019	104.28	70.03	85.38	LU Type
2020	104.07	69.76	85.34	6
2021	103.86	69.48	85.31	6
2022	103.66	69.21	85.28	6
2023	103.45	68.93	85.24	6
2024	103.24	68.66	85.21	6
2025	103.03	68.38	85.17	6
2026	102.83	68.10	85.14	6

2027	102.62	67.83	85.10	9
2028	102.41	67.55	85.07	2
2029	102.21	67.28	85.03	5
2030	102.00	67.00	85.00	5
				8
				8
				8
				8
				3
				3
				5
				5
				5
				5
				5
				5
				5
				5
				4
				4
				4
				9
				5
				11
				11
				11
				11
				5
				5
				10
				10
				1
				1
				1
				1
				1

Source:

San Francisco PUC Wholesale Customer Water Demand Projections Technical Report,
Prepared by URS Corporation and Maddaeus Water Management, November 2004.
Tables 3-2 and 5-2

	Mitigated Water and Wastewater		
	Project	Baseline	Project-Baseline
CO2 metric tons/year:	727.5587	0.0000	
CH4 metric tons/year:	0.0061	0.0000	
N20 metric tons/year:	0.0033	0.0000	
CO2e metric tons/year:	728.7232	0.0000	
CO2e metric tons/year:			**728.72**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

Outdoor Gallons/year	Mitigated Indoor Gallons/Year	Mitigated Outdoor Gallons/year	Total Mitigated kwh/year
0.00	0.00	0.00	
166,601,484.69	260,581,809.38	166,601,484.69	
166,601,484.69	260,581,809.38	166,601,484.69	
	1410008.17	583105.20	1,993,113.37

mployee	
	1,700.00
	1,300.00
	1,300.00
	1,000.00
	900.00
	766.00
Safety	750.00
	600.00
	550.00
	500.00
	400.00

Energy Information Administration Special Topics 1995 Building Activities Other, Square feet per employee.
http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/office/office_howmanyempl.htm

BASELINE	
% indoor water use	0.000
% outdoor water use	0.000
Total	0.00

Baseline Demand - Indoor	0.00	kwh/year
Baseline Demand - Outdoor	0.00	kwh/year
Total	0.00	kwh/year

imate Action Registry, 2009

From URBEMIS: Project Data		
Land Use Residential	Units	Projected Water Use (gallons/yr)
Single Family Residential	849.00	92,928,313.80
Multi-family Residential	3,888.00	251,964,756.00
Land Use Nonresidential	Square Feet	Projected Water Use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	106.50	4,313,528.07
Junior High School	102.00	4,131,266.32
High School	202.40	8,197,728.46
Junior College	0.00	0.00
University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00

User Provided Blank Land Use Data: Project Data	
Land Use Name	**Projected Water Use (gallons/yr)**

City Park	2,502.52	59,723,650.04
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	157.00	5,412,138.89
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	6.60	511,912.50
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00
General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		427,183,294.07

From URBEMIS: Baseline Data		

Land Use Residential	Units	Projected Water use (gallons/yr)
Single Family Residential	0.00	0.00
Multi-family Residential	0.00	0.00
Land Use Nonresidential	Square Feet	Projected Water use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	0.00	0.00
Junior High School	0.00	0.00
High School	0.00	0.00
Junior College	0.00	0.00
University/College	0.00	0.00
Library	0.00	0.00

User Provided Blank Land Use Data: Baseline Data	
Land Use Name	**Projected Water Use (gallons/yr)**

Place of Worship	0.00	0.00
City Park	0.00	0.00
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	0.00	0.00
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	0.00	0.00
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00
General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		0.00

Solid Waste

Baseline is currently: OFF

	Unmitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	6.83	0.00	
Truck Haul CH4 (metric tons/year):	0.0000	0.0000	
Truck Haul CO2e (metric tons/year):	6.83	0.00	
Landfill Offgasing (CO2e metric tons/year):	3,902.85	0.00	
Total Solid Waste (CO2e metric tons/year):	3,909.69	0.00	
Total Solid Waste (CO2e metric tons/year):			**3,909.69**

Project Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Base

Clear All User Overrides

Project	Defaults	User Override
Average Round Trip Truck Haul Distance (miles):	40.00	10.00
Solid Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	406.55	
Miles per Year:	4,065.47	

Avg Round Trip
Solid

PROJECT Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	849.00	2.23	1,894.95	916.92
Multi-Family Residential	3,888.00	1.17	4,548.96	4,199.04
PROJECT Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	106.50	0.0013	138.45	
Junior High School	102.00	0.0013	132.60	
High School	202.40	0.0013	263.12	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	

Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	2,502.52	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	157.00	0.0024	376.80	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	6.60	0.0108	71.28	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	
			7,426.16	

BASELINE Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	0.00	2.23	0.00	

Multi-Family Residential	0.00	1.17	0.00	
BASELINE Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	0.00	0.0013	0.00	
Junior High School	0.00	0.0013	0.00	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	0.00	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	0.00	0.0024	0.00	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	0.00	0.0108	0.00	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	

Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	

WARM Emission Factors			
	Landfilling, No Recovery	Landfilling w/Flaring	Landfilling w/Energy Recovery
Mixed Solid Waste	3.10	0.64	0.30
Emissions (from EMFAC2007, 35 mph for Heavy-Heavy Duty Trucks			
Year	CO2 (grams/mile)	CH4 (grams/mile)	
2005	1,723.50	0.06	
2006	1,733.00	0.06	
2007	1,740.80	0.06	
2008	1,748.40	0.05	
2009	1,755.80	0.05	
2010	1,763.00	0.05	
2011	1,769.30	0.04	
2012	1,775.00	0.04	
2013	1,780.40	0.04	
2014	1,785.10	0.03	
2015	1,789.20	0.03	
2016	1,792.90	0.03	
2017	1,796.20	0.03	
2018	1,799.00	0.02	
2019	1,801.60	0.02	
2020	1,803.60	0.02	
2025	1,809.70	0.02	
2030	1,812.10	0.01	
2035	1,813.40	0.01	
2040	1,813.80	0.01	

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36

Source:
Final Regulation Order
Subchapter 10. Climate Change

2013	1.00	0.72	Article 4. Regulations to Achieve Greenhouse
2014	1.50	1.08	Subarticle 7. Low Carbon Fuel Standard
2015	2.50	1.80	Section 95482. Average Carbon Intensity Requ
2016	3.50	2.52	
2017	5.00	3.60	
2018	6.50	4.68	
2019	8.00	5.76	
2020	10.00	7.20	
2021	10.00	7.20	
2022	10.00	7.20	
2023	10.00	7.20	
2024	10.00	7.20	
2025	10.00	7.20	
2026	10.00	7.20	
2027	10.00	7.20	
2028	10.00	7.20	
2029	10.00	7.20	
2030	10.00	7.20	
2031	10.00	7.20	
2032	10.00	7.20	
2033	10.00	7.20	
2034	10.00	7.20	
2035	10.00	7.20	
2036	10.00	7.20	
2037	10.00	7.20	
2038	10.00	7.20	
2039	10.00	7.20	
2040	10.00	7.20	

	Mitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	6.83	0.00	
Truck Haul CH4 (metric tons/year):	0.0000	0.0000	
Truck Haul CO2e (metric tons/year):	6.83	0.00	
Landfill Offgasing (CO2e metric tons/year):	3,902.85	0.00	
Total Solid Waste (CO2e metric tons/year):	3,909.69	0.00	
Total Solid Waste (CO2e metric tons/year):			**3,909.69**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

eline Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Baseline	Defaults	User Override
Truck Haul Distance (miles):	40.00	
Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	0.00	
Miles per Year:	0.00	

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
586.83	916.92
2,687.39	4,199.04

CO2 (metric tons/yr)	
0.00	0.00
88.61	138.45
84.86	132.60
168.40	263.12
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Project Data

Land Use Name	**Solid Waste Generation/Year (tons)**	**CO2e (metric tons/year)**
		0.00
		0.00
		0.00
		0.00
		0.00

0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
241.15	376.80
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
45.62	71.28
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
3,902.85	6,098.21

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CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
0.00	0.00

0.00	0.00
CO2 (metric tons/yr)	
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
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0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Baseline Data

Land Use Name	**Solid Waste Generation/Year (tons)**	**CO2e (metric tons/year)**
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

		0.00
		0.00
		0.00
		0.00
		0.00

Gas Reductions

ıirements for Gasoline and Diesel

Agriculture

Baseline is currently: OFF

	Agriculture		
	Project	**Baseline**	**Project - Baseline**
CO2 metric tons/year:	0.000	0.00	
CH4 metric tons/year:	0.000	0.00	
N2O metric tons/year:	0.000	0.00	
CO2e metric tons/year:	0.00	0.00	
CO2e metric tons/year:			**0.00**

Clear All User Inputs

PROJECT Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

PROJECT Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00

		0.00	0.00	0.00	0.00

PROJECT Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.0000	0.0000	0.00
Diesel Fuel		0.00	0.0000	0.0000	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.0000	0.0000	0.00

PROJECT Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

PROJECT Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Note: GHG emissions associated with water use assumed to be accounted for in the fuel and electricity consumption.

Animal Type	Enteric Fermentation Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons N2O/head/yr)
Beef Cattle	0.085556	0.002158	0.000000
Beef Replacement Heifers	0.066208	0.001914	0.000000
Steers	0.033349	0.001470	0.000000
Bulls	0.053000	0.002793	0.000000
Milk Cows	0.116520	0.164125	0.000738
Dry Cows	0.116520	0.165125	0.000738
Heifers, 15-24 months	0.067047	0.002210	0.001620
Heifers, 7-14 months	0.042376	0.002210	0.001620
Heifers, 4-6 months	0.042376	0.002210	0.001620
Calves	0.042376	0.002210	0.001620
Chickens (fryers)	0.000000	0.000018	0.000002
Goats, Hogs, Pigs	0.001500	0.028228	0.000141
Sheeps and Lambs	0.008000	0.000781	0.000002
Turkeys	0.000000	0.000086	0.000010

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Table C.3, CCAR	Table c.6, CCAR	Table C.6, CCAR
CO2	CH4	N2O
kg/gallon	grams/gallon	grams/gallon
8.81	1.26	0.22
10.15	1.44	0.26
5.74	0.09	0.41

Table C.7, CCAR	Table C.9, CCAR	Table C.9, CCAR
kg/gallon	kg/gallon	kg/gallon
8.8100	0.0014	0.0001
10.1500	0.0015	0.0001
5.7400	0.0010	0.0001

Table E.1, CCAR CAMX (#/MWh)	Table E.2, CCAR (#/MWh)	Table E.2, CCAR(#,MWh)
878.7100	0.0067	0.0037

0.01425	metric tons N2O per ton organic and synthetic fertilzers applied

BASELINE Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

BASELINE Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00

		0.00	0.00	0.00	0.00

BASELINE Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.00	0.00	0.00
		0.00	0.0000	0.0000	0.00

BASELINE Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

BASELINE Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Off-Road Equipment

Baseline is currently: OFF

	Project					Off-Road Equipment
	Gasoline	Diesel Fuel	Propane	Total		
CO2 metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2 metric tons/year:
CH4 metric tons/year:	0.0000	0.0000	0.0000	0.00		CH4 metric tons/year:
N2O metric tons/year:	0.0000	0.0000	0.0000	0.00		N2O metric tons/year:
CO2e metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2e metric tons/year:
CO2e metric tons/year:						

Off-Road Equipment (typically used in commercial and industrial activities, e.g., forklifts, compressors, etc.)
(This does not include landscape maintenance equipment, which is accounted for in the area source calculations.)

PROJECT Fuel Use	Total Gallons Used per Year
Gasoline	
Diesel Fuel	
Propane	

Clear All User Inputs

BASELINE Fuel Use
Gasoline
Diesel Fuel
Propane

Table C.3, CCAR CO2 kg/gallon	Table c.6, CCAR CH4 grams/gallon	Table C.6, CCAR N2O grams/gallon
8.81	0.50	0.22
10.15	0.58	0.26
5.74	0.09	0.41

Low Carbon Fuel Standard

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

Baseline				Project - Baseline
Gasoline	Diesel Fuel	Propane	Total	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
				0.00

Total Gallons Used per Year

Refrigerants

Baseline is currently: OFF

	Unmitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

Refrigeration Systems CO2e metri
AC Systems CO2e metri
Total Refrigerants CO2e metri

***** Select Mitigation Measures on the**

PROJECT Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)	Default GWP (weighted average)	User Override of GWP	CO2e (metric tons/year)
Centralized		0.00		3,219.92		0.00
Cold Storage		0.00		2,366.92		0.00
Process Cooling		0.00		1,204.20		0.00
Refrigerant Condensing Units		0.00		2,265.28		0.00
PROJECT AC Systems						
Centrifugal Chiller (large)		0.00		1,349.34		0.00
Centrifugal Chiller (medium)		0.00		1,349.34		0.00
Packaged Chiller (medium)		0.00		1,349.34		0.00
Unitary AC (small)		0.00		1,685.29		0.00

* If user knows type of refrigerant proposed, then the default GWP value should be used to override the default value

Clear All User Inputs

Average Leak Rates (Annual	Default
Refrigeration Systems	Leak Rate (%)
Centralized	10.00
Cold Storage	10.00
Process Cooling	7.00
Refrigerant Condensing Units	5.00
AC Systems	
Centrifugal Chiller (large)	2.00
Centrifugal Chiller (medium)	1.00
Packaged Chiller (medium)	3.50
Unitary AC (small)	5.00

Refigerant Losses: Based Primarily on Appendix B: California Facilities and GHG Emissions Inventory - High Globa

Refrigerant Distribution							
Centralized Systems		GWP	2,010.00	2,011.00	2,012.00	2,013.00	2,014.00
	HCFC-22	1,500	42.20				
	R-404A	3,260	39.70				
	R-507	3,300	18.10				
	Weighted GWP		2,524.52	2,594.06	2,663.60	2,733.14	2,802.68
Cold Storage							
	CFC-12	8,100	2.00				
	HCFC-22	1,500	56.60				
	R-404A	3,260	26.20				
	R-502	4,500	6.60				
	R-507	3,300	8.60				
	Weighted GWP		2,445.92	2,438.02	2,430.12	2,422.22	2,414.32
Process Cooling							
	CFC-11	3,800	1.00				
	CFC-12	8,100	15.60				
	HCFC-22	1,500	22.00				
	HCFC-123	90	23.30				
	HFC-134A	1,300	33.30				
	R-401A	970	0.40				
	R-404a	3,260	2.70				
	R-410A	1,725	0.90				
	R-507	3,300	0.90				
	Weighted GWP		2,222.60	2,120.76	2,018.92	1,917.08	1,815.24
Refrigerated Condensing Units							
	CFC-12	8,100	2.20				
	HCFC-22	1,500	30.40				
	HFC-134a	1,300	40.40				
	R-404a	3,260	19.00				
	R-507	3,300	8.00				
	Weighted GWP		2,042.80	2,065.05	2,087.30	2,109.54	2,131.79
Chillers							
	CFC-11	3,800	2.60				
	CFC-12	8,100	0.90				
	HCFC-22	1,500	73.80				
	HCFC-123	90	6.80				
	CFC-114	9,300	0.10				
	HFC-134A	1,300	14.10				
	HFC-236fa	6,300	0.40				
	R-407a	1,526	1.00				
	R-410a	1,725	0.10				
	R-500	6,010	0.20				
	Weighted GWP		1,531.63	1,513.40	1,495.17	1,476.94	1,458.71
Unitary AC							
	HCFC-22	1,500	78.40				
	HFC-134a	1,300	0.10				
	R-407a	1,526	0.30				
	R-410a	1,725	21.20				
	Weighted GWP		1,547.58	1,561.35	1,575.12	1,588.89	1,602.66

	Mitigated Refrigerants		
	Project	Baseline	Project - Baseline
: tons/year:	0.00	0.00	
: tons/year:	0.00	0.00	
: tons/year:	0.00	0.00	
			0.00

: Mitigation Tab ===> Mitigation

BASELINE Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)	Default GWP (weighted average)	User Override of GWP	CO2e (metric tons/year)
Centralized		0.00		2,594.06		0.00
Cold Storage		0.00		2,438.02		0.00
Process Cooling		0.00		2,120.76		0.00
Refrigerant Condensing Units		0.00		2,065.05		0.00
BASELINE AC Systems						
Centrifugal Chiller (large)		0.00		1,513.40		0.00
Centrifugal Chiller (medium)		0.00		1,513.40		0.00
Packaged Chiller (medium)		0.00		1,513.40		0.00
Unitary AC (small)		0.00		1,561.35		0.00

* If user knows type of refrigerant proposed, then the default GWP value should be used to override the default value

and Overrides

l Warming Potential Stationary Source Refrigerant Management Program

2,015.00	2,016.00	2,017.00	2,018.00	2,019.00	2,020.00
					3.00
					65.20
					31.80
2,872.22	2,941.76	3,011.30	3,080.84	3,150.38	3,219.92
					0.00
					28.10
					54.20
					0.00
					17.70
2,406.42	2,398.52	2,390.62	2,382.72	2,374.82	2,366.92
					0.00
					0.00
					11.00
					29.40
					44.50
					0.30
					8.80
					3.40
					2.60
1,713.40	1,611.56	1,509.72	1,407.88	1,306.04	1,204.20
					0.00
					7.30
					44.50
					33.30
					14.90
2,154.04	2,176.29	2,198.54	2,220.78	2,243.03	2,265.28
					0.00
					0.00
					32.30
					8.20
					0.00
					32.30
					0.10
					18.20
					8.90
					0.00
1,440.48	1,422.25	1,404.02	1,385.79	1,367.57	1,349.34
					15.00
					0.70
					1.50
					82.80
1,616.43	1,630.21	1,643.98	1,657.75	1,671.52	1,685.29

Mitigation

Mitigation Category

	Check=On	Mitigation Options	MMBtu/year Reduced	
Electricity & Natural Gas	☐	Solar Water Heater	5000	
	☐	Tankless Water Heater	5000	
			kwh/year reduced	MMBtu/year Increased
	☐	Cool Roofs/Green Roofs	5000	2
			% Increase In Energy Efficiency	
	☐	Increase Energy Efficiency Beyond Title 24	10	
			kwh/year generated	
	☐	Onsite Renewable Energy Systems - Solar	5000	
	☐	Onsite Renewable Energy Systems - Wind	5000	
	☐	Onsite Renewable Energy Systems - Other	5000	

			% Reduction Outdoor Use
	☐	Drought Tolerant Landscaping	10

Water and Wastewater			% Reduction Indoor Use
	☐	Low Flush Toilets	2

Solid Waste			Solid Waste Reduction %
	☐	Reduce Solid Waste by the Following Percentage	10

Refrigerants			% Reduction
	☐	Use Ammonia of CFCs or HCFCs	50

Offsets / Credits			Metric Tons CO2e/Year
	☐	Purchase Emission Offsets / Credits	5000

Calculations for Mitigation Selections

	0
	0
	0
Change in Natural Gas Use (MMBtu/year)	0
	0
	0
	0
	0
Change in Electricity Use (kwh/year)	0
Percentage Reduction in Elec and Nat Gas Use	0
% Reduction Outdoor H2O Use	0

% Reduction Indoor Water Use	0
Solid Waste Reduction %	0
% Reduction in CFC/HCFC Use	0

Baseline is currently: OFF

	Unmitigated Project-Baseline Emissions CO2e/year	Mitigated Project-Baseline Emissions CO2e/year
Transportation	52,160.69	52,160.69
Area Sources	32.62	32.62
Electricity	17,952.44	17,952.44
Natural Gas	9,770.12	9,770.12
Water and Wastewater	1,402.80	728.72
Solid Waste	3,909.69	3,909.69
Ag	0.00	0.00
Off-Road Equipment	0.00	0.00
Refrigerants	0.00	0.00
Sequestration	N/A	0.00
Emission Credits	N/A	0.00
Totals	85,228.36	84,554.28

Carbon Sequestration

Project Year:	2030
Emissions (CO2e metric tons/year):	0.00

Gas	Type	Unit of Measure	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Carbon dioxide	Total Storage	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon dioxide	Annual Increase	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Number of Trees Planted					
	Hardwoods			Conifers		
Year	Fast	Medium	Slow	Fast	Medium	Slow
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

Clear All User Inputs

Sequestration in Data Year 1 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 2 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00

Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 3 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 4 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00

Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 5 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00

Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 6 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 7 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00

Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 8 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00

Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 9 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00

Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 10 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00

Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00

Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 11 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00

Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 12 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00

Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 13 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00

Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00

Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 14 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00

Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00

Total Carbon Sequestered in Reporting Year	0.0	0.00
Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 15 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00

Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
Fast-growth hardwoods	H	F	14	0	0.539	0.0	27.5	0.0	0.00
Med-growth hardwoods	H	M	14	0	0.527	0.0	15.8	0.0	0.00
Slow-growth hardwoods	H	S	14	0	0.512	0.0	7.5	0.0	0.00
Fast-growth conifers	C	F	14	0	0.539	0.0	19.6	0.0	0.00
Med-growth conifers	C	M	14	0	0.527	0.0	10.8	0.0	0.00
Slow-growth conifers	C	S	14	0	0.512	0.0	4.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Transportation Detail for Operational Mitigation

Operational NonResidential Mitigation

Operational Annual Miscellaneous Detail

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Land Use Detail

Land Use Description	Units	UnitType	Acreage	Trip Rate Unmitigated	Total Trips Unmitigated
Single family housing	849	dwelling units	141.5	9.57	8124.93
Apartments low rise	3287	dwelling units	410.9	9.57	31456.59
Apartments high rise	305	dwelling units	12.5	6.65	2028.25
Condo/townhouse general	296	dwelling units	18.5	5.81	1719.76
Elementary school	1500	students		1.29	1935
Junior high school	1200	students		1.62	1944
High school	2200	students		1.71	3762
City park	114.9	acres		1.59	182.69
Strip mall	157	1000 sq ft		58.11	9123.27
Goverment office building	6.6	1000 sq ft		52.5	346.5

Total VMT Unmitigated	Trip Rate Mitigated	Total Trips Mitigated	Total VMT Mitigated
60817.23	0	0	0
235460.83	0	0	0
15181.98	0	0	0
12872.85	0	0	0
10278.72	0	0	0
11096.35	0	0	0
23037.83	0	0	0
1041.96	0	0	0
37082.03	0	0	0
1561.28	0	0	0

Help

Bay Area Air Quality Management District Greenhouse Gas Model (BGM) Version: 1.1.9 Beta

Step 1: Enable Macros

Macros must be enabled for this model to operate correctly. The method for enabling macros for this spreadsheet differs depending on the security settings in Excel.

Step 2: Open an Urbemis Project File, or Refresh Urbemis Data

BGM depends on the data and results from an URBEMIS project file. Two URBEMIS files can be specified : a project file and (optionally) a baseline file. To open a file, or to refresh the data in this spreadsheet after an URBEMIS file has been modified, go to the Settings tab by clicking on the Open an URBEMIS Project File link to the right . Select the URBEMIS file(s) that you want to import and hit the refresh data button. Please make sure that the Emfac Database Location is correct before clicking either of the Refresh buttons.

Step 3: Data Entry Options

The bright yellow areas on each tab represent data entry locations, if applicable to your project. In some cases, there are optional data inputs (shown in peach). Some tabs, such as transportation and area sources, do not require any data input, as results are imported directly from URBEMIS. Certain other tabs - electricty & natural gas, water & wastewater, and solid waste - require some minor amount of user input, although most of the information used to estimate emissions is imported from URBEMIS. And for certain tabs, - ag, off-road, refrigerants, and carbon sequestration - the user must enter project specific information to obtain emission estimates.

Step 4: View Results

The Results Tab presents a graphical and tabular view of the results of the Greenhouse Gas Calculator. Both a summary and detailed report are included on the Results tab. The user also has the option of selected project specific mitigation on the Mitigation tab and on the Carbon Sequestration tab.

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

LINKS

Assistance provided by:

Rimpo and Associates, Inc.

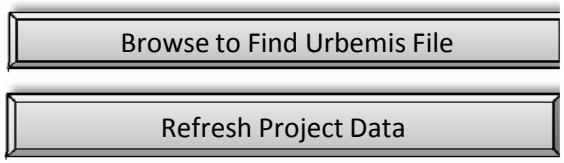
Enter data in yellow cells with values applicable to your project

Enter data in peach cells if you have information specific to your project; these values will be used in place of the default values

Settings

Open an Urbemis Project File

Step 1: Click the Browse button to find the file:
Step 2: Click the Refresh Project button to read the data,
make an Urbemis run and import the results:

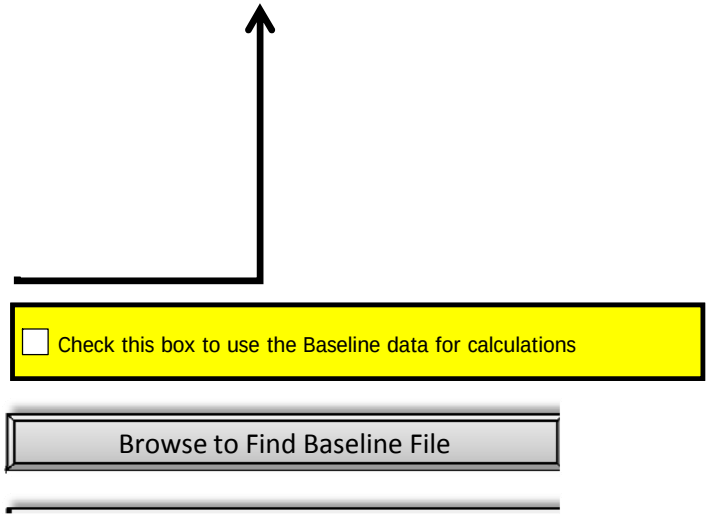


The Urbemis Project File Has Been Changed

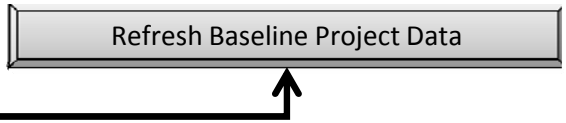
Step 1: Make sure the directory path and
file name are correct in the Project File Name field.
Step 2: Click the Refresh button to update the data:

Establish a Baseline Run for Comparison

Step 1: Click the Browse button to find the Urbemis
Project File representing the baseline:



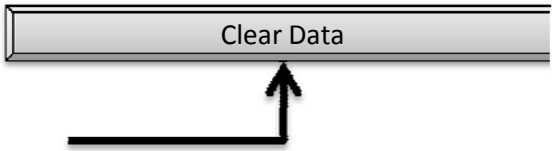
Step 2: Click the Refresh Baseline button to read the baseline project data, make an Urbemis run and import the results:



Clear All Project and Baseline Data

Step 1: Save the current spreadsheet, as this will cause all of the current data to be lost

Step 2: Click the Clear Data button to reset the spreadsheet

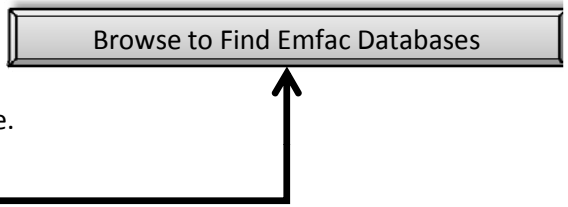


Change the Emfac Data Location

Emfac data files are stored, by default, in a directory Microsoft calls Common Application Data.

This Data location may have been changed in the Urbemis config file.

If the Emfac files cannot be found, use the Browse button to find the databases:



Or, try resetting the Emfac Database Location to its default value:

Current Project File Name

C:\Documents and Settings\leemanw\My Documents\SunCreek\Urbemis\SunCreek Specific Plan- BIM area and operational.ur

Project Data Last Refreshed On:

8/17/10 9:08 AM

Project Name:

SunCreek Specific Plan- BIM

ns

Baseline Project File Name

Baseline Data Last Refreshed On:

Baseline Project Name:

Emfac Database Location

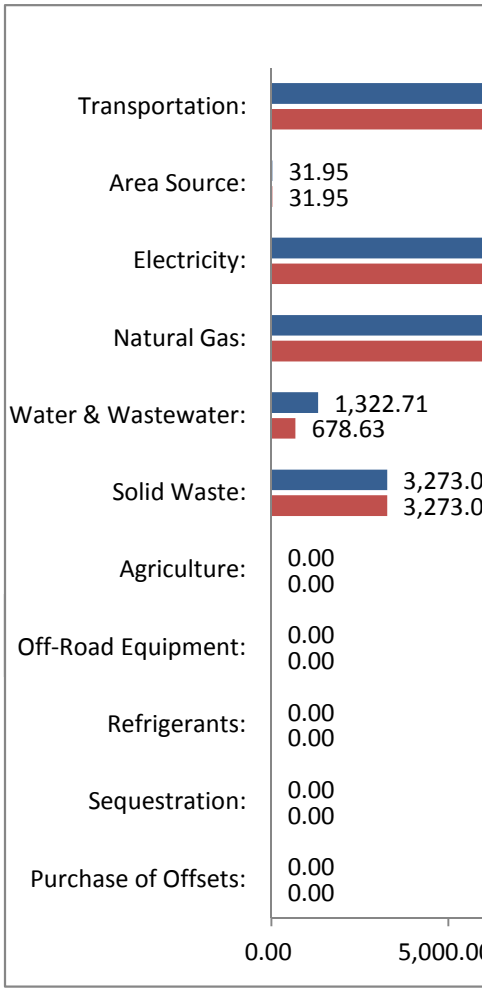
C:\Documents and Settings\leemanw\Application Data\Urbemis\Version9a\Data

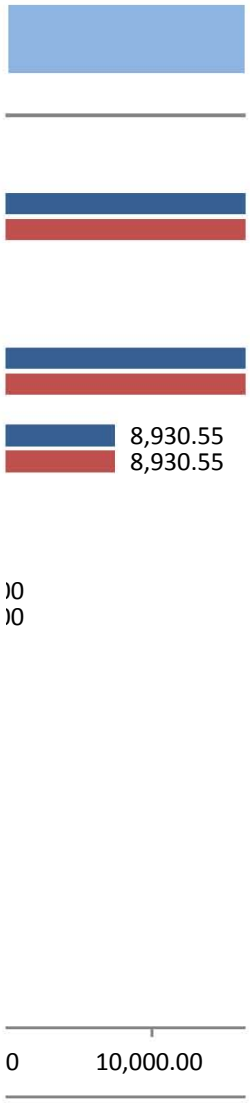
Summary Results

Project Name: SunCreek Specific Plan- BIM
Project and Baseline Years: 2030 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	42,584.87	42,584.87
Area Source:	31.95	31.95
Electricity:	15,450.26	15,450.26
Natural Gas:	8,930.55	8,930.55
Water & Wastewater:	1,322.71	678.63
Solid Waste:	3,273.00	3,273.00
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	71,593.34	70,949.26

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline




8,930.55
8,930.55
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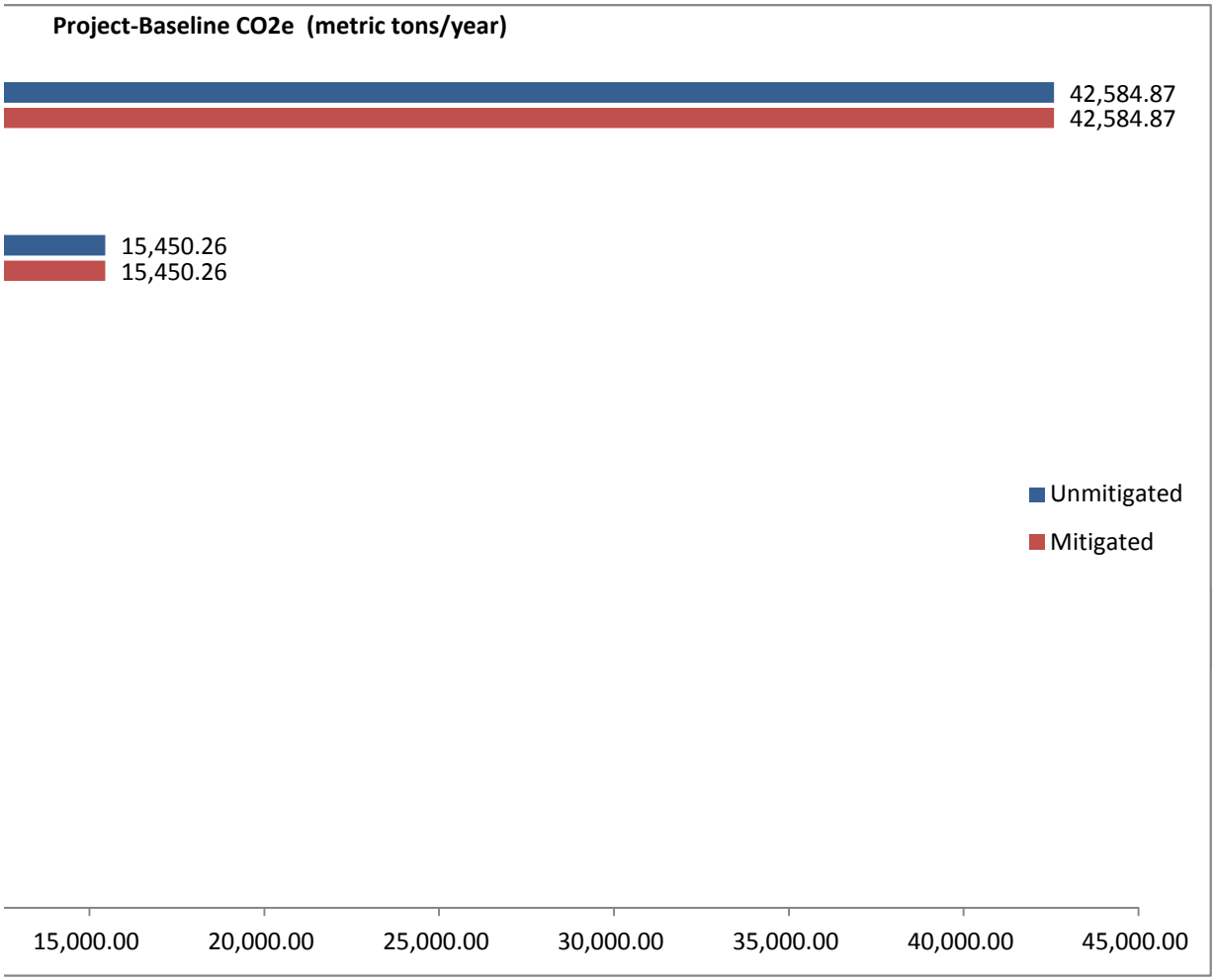

Project-Baseline CO2e (metric tons/year)
42,584.87
42,584.87
15,450.26
15,450.26
Unmitigated
Mitigated
15,000.00
20,000.00
25,000.00
30,000.00
35,000.00
40,000.00
45,000.00

Transportation

Baseline is Currently: OFF

Target Year:	2030	2011	
Unmitigated Transportation	**Project**	**Baseline**	**Project-Baseline**
Operational Emissions from URBEMIS (CO2 tons/year)	62,087.52	0.00	
Metric Ton Adjustment (CO2 metric tons/year)	56,340.76	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):	43,594.42	0.00	
US EPA Adjustment (CO2e metric tons/year):	45,888.87	0.00	
Low Carbon Fuels Rule Adjustment (CO2e metric tons/year)	42,584.87	0.00	
Total (CO2e metric tons/year):			**42,584.87**

The BGM User's Manual describes in detail each step used to convert URBEMIS's transportation CO2 emissions to total CO2e.
These steps include converting from English to Metric units, adjusting for the Pavley Rule, converting CO2 to CO2e, and adjusting for the Low

Reference

U.S. EPA assumption that GHG emissions from other pollutants - CH4, N20, and hydrofluorcarbons (HFCs) from leaking air conditioners accou

Jump to the Following Transportation Related Tabs:

Transportation Detail for Operational Mitigation
Land Use Detail

	Don't Need to Adjust this amt	Unadjusted Amount Affected by Pavley	Adjusted	Adusted
	Not Affected by Pavley	LDA/ LDT1/ LDT2/ MDV	LDA	LDT1
Pavley Calculations - Project Unmitigated	8,867.37	47,473.39	16,479.67	5,233.48
Pavley Calculations - Baseline Unmitigated	0.00	0.00	0.00	0.00
Pavley Calculations - Project Mitigated	8,867.37	47,473.39	16,479.67	5,233.48
Pavley Calculations - Baseline Mitigated	0.00	0.00	0.00	0.00

Pavley Adjustment

Year	% LDA CO2 Emissions	% LDT1 CO2 Emissions	% LDT2 CO2 Emissions	% MDV CO2 Emissions
2009	41.59%	12.33%	19.61%	9.71%
2010	41.72%	12.39%	19.54%	9.61%
2011	41.83%	12.45%	19.50%	9.50%
2012	41.89%	12.50%	19.47%	9.40%
2013	41.94%	12.56%	19.46%	9.32%
2014	41.98%	12.62%	19.46%	9.27%
2015	42.00%	12.67%	19.47%	9.24%
2016	42.05%	12.76%	19.50%	9.23%
2017	42.02%	12.81%	19.51%	9.21%
2018	41.98%	12.84%	19.52%	9.21%
2019	41.95%	12.87%	19.53%	9.21%
2020	41.92%	12.89%	19.55%	9.22%
2025	41.92%	12.96%	19.67%	9.28%

2030	42.15%	13.03%	19.76%	9.32%
2035	42.21%	13.11%	19.80%	9.35%
2040	42.24%	13.14%	19.90%	9.44%

Low Carbon Fuels Standards

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Gre
Subarticle 7. Low Carbon Fuel Stand
Section 95482. Average Carbon Inte

2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Mitigated Transportation	Target Year:	2030	2011	
		Project	**Baseline**	**Project-Baseline**
Operational Vehicles from URBEMIS (CO2 tons/year):		62,087.52	0.00	
Metric Ton Adjustment (CO2 metric tons/year):		56,340.76	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):		43,594.42	0.00	
US EPA Adjustment (CO2e metric tons/year):		45,888.87	0.00	
Low Carbon Fuels Adjustment (CO2e metric tons/year):		42,584.87	0.00	
Total (CO2e metric tons/year):				**42,584.87**

' Carbon Fuels Rule.

ınt for 5 percent of emissions from vehicles, after accounting for global warming potentail of each GHG.

Adusted	Adusted	Adjusted
LDT2	MDV	4 totaled
8,836.15	4,177.75	34,727.05
0.00	0.00	0.00
8,836.15	4,177.75	34,727.05
0.00	0.00	0.00

% LDA/LDT1/LDT2/MDV	% everything else	% CO2 Reduction - LDA	% CO2 Reduction - LDT1	% CO2 Reduction - LDT2	% CO2 Reduction MDV
83.26%	16.74%	0.00%	0.00%	0.07%	0.08%
83.26%	16.74%	0.35%	0.25%	0.45%	0.48%
83.27%	16.73%	1.75%	1.34%	1.31%	1.29%
83.27%	16.73%	4.07%	3.27%	2.60%	2.44%
83.28%	16.72%	6.31%	5.26%	3.88%	3.61%
83.33%	16.67%	8.48%	7.26%	5.17%	4.83%
83.38%	16.62%	10.74%	9.38%	6.54%	6.17%
83.54%	16.46%	12.96%	11.56%	7.94%	7.54%
83.55%	16.45%	15.03%	13.58%	9.27%	8.88%
83.55%	16.45%	16.94%	15.43%	10.54%	10.16%
83.57%	16.43%	18.72%	17.13%	11.74%	11.40%
83.59%	16.41%	20.37%	18.69%	12.89%	12.59%
83.82%	16.18%	26.87%	24.86%	17.60%	17.42%

84.26%	15.74%	30.60%	28.71%	20.63%	20.47%
84.47%	15.53%	32.38%	31.17%	22.43%	22.29%
84.72%	15.28%	33.27%	32.61%	23.60%	23.53%

eenhouse Gas Reductions
ard
nsity Requirements for Gasoline and Diesel

12.00	13.00	14.00	15.00	16.00	
LDA					
0.0000	0.0000	0.0006	0.0007	0.0013	Step 1 - Figure out year
0.0020	0.0022	0.0036	0.0044	0.0122	Step 2- Emissions from HDVs, etc. do not change
0.0102	0.0117	0.0106	0.0117	0.0442	Step 3 - Adjust emissions from LDA's, etc. individually
0.0237	0.0286	0.0209	0.0221	0.0953	Step 4 - Add Step 2 and Step 3 emissions
0.0366	0.0460	0.0313	0.0328	0.1466	
0.0492	0.0634	0.0416	0.0438	0.1980	
0.0623	0.0819	0.0527	0.0560	0.2529	
0.0751	0.1008	0.0639	0.0684	0.3082	
0.0871	0.1184	0.0746	0.0806	0.3608	
0.0983	0.1345	0.0848	0.0923	0.4099	
0.1087	0.1492	0.0945	0.1035	0.4559	
0.1183	0.1628	0.1037	0.1143	0.4990	
0.1560	0.2164	0.1414	0.1581	0.6719	

0.1770	0.2497	0.1655	0.1856	0.7779
0.1871	0.2708	0.1799	0.2021	0.8400
0.1922	0.2832	0.1890	0.2131	0.8775

Area Source

Baseline is currently: OFF

Unmitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	7.459	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	15.826	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.026	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.027	0.000	
Total (CO2e metric tons/year):	31.951	0.000	
Total (CO2e metric tons/year):			**31.951**

The URBEMIS area source calculations include five separate categories: 1) natural gas fuel combustion, 2) hearth fuel combu
tab imports CO2 emissions calculated by URBEMIS for hearths and landscape maintenance equipment only. BGM then calcul
consumer products and architectural coatings categories within URBEMIS do not generate GHG emissions and, consequently
Instead, BGM calculates natural gas use and the resulting CO2 emissions in the Electricity and Natural Gas tab.

Mitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	7.459	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	15.826	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.026	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.027	0.000	
Total (CO2e metric tons/year):	31.951	0.000	
Total (CO2e metric tons/year):			**31.951**

stion, 3) landscape maintenance equipment, 4) consumer products, and 5) architectural coatings. This Area Source ates N2O and CH4 emissions for woodstoves and fireplaces and uses the resulting emissions to calculate CO2e. The , are not used by BGM. Also, URBEMIS' estimate of CO2 from natural gas fuel combustion is not used by BGM.

Electricity and Natural Gas

Baseline is currently: OFF

Unmitigated Electricity			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year CO2:	15,425.568	0.000	
CH4 metric tons/year CH4:	0.128	0.000	
N2O metric tons/year:	0.071	0.000	
CO2e metric tons/year:	15,450.257	0.000	
CO2e metric tons/year:			**15,450.26**

Unmitigated Natural Gas			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	8907.72	0.000	
CH4 metric tons/year:	0.84	0.000	
N2O metric tons/year:	0.02	0.000	
CO2e metric tons/year:	8930.55	0.000	
CO2e metric tons/year:			**8,930.55**

Project Climate Zone Location: ○ Zone 4 ◉ Zone 5

PROJECT Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	1,000.000	6,047.000	6,047.000	9,073.000
Multi Family Residential	3,440.000	3,685.000	12,676.400	31,211.120

PROJECT Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	106.50	586.33	975.54	356.11
Junior High School	102.00	561.56	934.32	341.06
High School	0.00	0.00	0.00	0.00
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	2,376.20	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00	0.00	0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	0.00	0.00	0.00	0.00
Hardware/Paint Store	0.00	0.00		0.00

Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00
Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	3.60	54.90	63.65	23.23
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

BASELINE Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	0.000	6,047.000	0.000	
Multi Family Residential	0.000	3,685.000	0.000	

BASELINE Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	0.00	0.00		0.00
Junior High School	0.00	0.00		0.00
High School	0.00	0.00		0.00
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	0.00	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00		0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	0.00	0.00		0.00
Hardware/Paint Store	0.00	0.00		0.00
Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00

Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	0.00	0.00		0.00
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

Greenhouse Gas Emission Factors

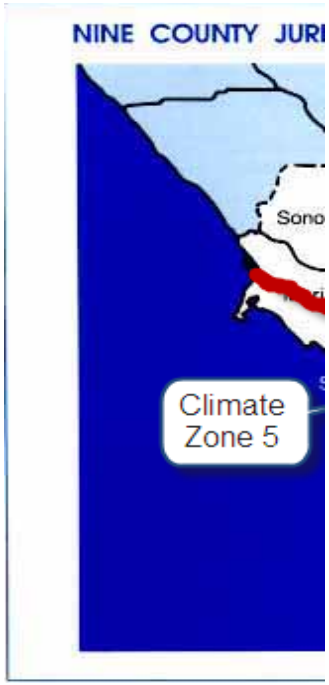
	CO2	CH4	N2O	
Electricity	804.54	0.0067	0.0037	
Units	lbs CO2/mwh	lbs CH4/mwh	lbs N20/MWH	Source: Climate Acti
Natural Gas	53.06	0.005	0.0001	
Units	CO2 (kg CO2/MMBtu)	CH4 (kg/MMBtu)	N2O(kg/MMBtu)	Source: Climate Acti

Summary	Climate Zone 4 Summary		Climate Zone 5 Summary	
	Electric (kwh/sf)	Natural Gas (MM Btu/sf)	Electric (kwh/sf)	Natural Gas (MM Btu/sf)
All Commercial	13.64	0.02949	13.19	0.03169
Small Office (<30,000 sf)	17.37	0.00975	14.49	0.02999
Large Office (>= 30,000 sf)	23.51	0.02639	15.25	0.02328
Restaurant	35.97	0.21255	31.41	0.17108

Retail	12.82	0.00301	12.65	0.00551
Food Store	44.34	0.02577	40.26	0.04135
Refrigerated Warehouse	10.12	0.00388	24.86	0.01869
Unrefrigerated Warehouse	4.26	0.00440	4.56	0.00169
School	6.65	0.02271	5.51	0.01958
College	9.75	0.02754	12.70	0.04185
Health	23.03	0.11871	18.40	0.11073
Lodging	9.33	0.04695	10.03	0.03915
Miscellaneous	9.81	0.02965	8.98	0.02724
All Offices	21.35	0.02052	15.14	0.02426
All Warehouses	5.82	0.00426	7.71	0.00433

Mitigated Electricity			
	Project	Baseline	Project-Baseline
CO2 metric tons/year CO2:	15,425.568	0.000	
CH4 metric tons/year CH4:	0.128	0.000	
N2O metric tons/year:	0.071	0.000	
CO2e metric tons/year:	15,450.257	0.000	
CO2e metric tons/year:			**15,450.26**

Mitigated Natural Gas			
	Project	Baseline	Project-Baseline
CO2 metric tons/year:	8907.717	0.000	
CH4 metric tons/year:	0.839	0.000	
N2O metric tons/year:	0.017	0.000	
CO2e metric tons/year:	8930.549	0.000	
CO2e metric tons/year:			**8,930.55**



***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

For detailed climate
http://capabilities.itr

Clear All User Overrides

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
3,311.974	0.0276	0.0152	49.600	49,600.000	37,000.000
11,393.192	0.0949	0.0524	22.500	77,400.000	127,280.000

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0030	0.0016	2,085.24	1,964.93	104.07	0.00981
0.0028	0.0016	1,997.14	1,881.90	99.67	0.00939
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0002	0.0001	83.82	58.50	3.10	0.00029
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
0.000	0.0000	0.0000	49.600	0.000	
0.000	0.0000	0.0000	22.500	0.000	

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

zone map see:
ron.com/CeusWeb/FCZMap.aspx

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	Elec Use	Gas Use
1,959.657	0.185	0.004	9,073.00	37,000.00
6,741.220	0.635	0.013	31,211.12	127,280.00

Residential Energy Use from California Statewide Residentia
See also Executive Summary for Natural Gas Use by Building

N2O (metric tons/yr)	Elect Use	Gas Use
0.00000	0.00	0.00
0.00020	975.54	1,964.93
0.00019	934.32	1,881.90
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00

User Provided Blank Land Use Data: Project Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00001	63.65	58.50	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
	42,257.63	168,185.33	Unmitigated
	42,257.63	168,185.33	Mitigated
	42,257.63	168,185.33	Mitigated %

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.000	0.000	0.000
0.000	0.000	0.000

N2O (metric tons/yr)
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
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0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

al Appliance Saturation Study, Tables 2-9, 2-13,2-15,2-4,2-5,2-23,2-24
g Age

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Water and Wastewater

Baseline is currently: OFF

Unmitigated Water and Wastewater			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	1320.5928	0.0000	
CH4 metric tons/year:	0.0110	0.0000	
N20 metric tons/year:	0.0061	0.0000	
CO2e metric tons/year:	1322.7065	0.0000	
CO2e metric tons/year:			**1,322.71**

Clear All User Overrides

	User Override of Model Estimates (af/yr)	Model Estimate (af/yr)	Total Gallons/year	Indoor Gallons/Year
Baseline Water Demand		0.00	0	0.00
Project Water Demand	2,379.20	1,220.68	397,820,879	242,670,735.93
Net Increase in Water Demand		1,220.68	397,820,879	242,670,735.93

Houshold Size	
Single Family	Multi-family
2.94	2.65

Land Use Type	**Square feet per e**
1	Warehouse
2	Public Assembly
3	Lodging
4	Food Sales
5	Retail and Service
6	Education
7	Public Order and
8	Food Service
9	Other
10	Health Care
11	Office

PROJECT	
% indoor water use	0.610

% outdoor water use	0.390
Total	1.00

Project Water Demand - Indoor	2559307.67	kwh/year
Project Water Demand - Outdoor	1058395.00	kwh/year
Total	3617702.67	kwh/year

Greenhouse Gas Emission Factors	CO2	CH4	N2O
Electricity	804.54	0.0067	0.0037
Units	#/mwh	#/mwh	#/mwh

from California Cl

Table ES-1. Recommended revised water-energy proxies

	Indoor Uses		Outdoor Uses	
	Northern California kWh/MG	Southern California kWh/MG	Northern California kWh/MG	Southern California kWh/MG
Water Supply and Conveyance	2,117	9,727	2,117	9,727
Water Treatment	111	111	111	111
Water Distribution	1,272	1,272	1,272	1,272
Wastewater Treatment	1,911	1,911	0	0
Regional Total	5,411	13,022	3,500	11,111

from Navigant, 2006

Gallons Per Acre Foot:	325,900.00

Indoor vs. Outdoor Water Use				
	Indoor	Outdoor	Total	
2001	0.64	0.36	1.00	
2002	0.64	0.36	1.00	
2003	0.64	0.36	1.00	LU Type
2004	0.64	0.36	1.00	6
2005	0.64	0.36	1.00	6

2006	0.63	0.37	1.00	6
2007	0.63	0.37	1.00	6
2008	0.63	0.37	1.00	6
2009	0.63	0.37	1.00	6
2010	0.63	0.37	1.00	6
2011	0.63	0.37	1.00	9
2012	0.63	0.37	1.00	2
2013	0.63	0.37	1.00	5
2014	0.63	0.37	1.00	5
2015	0.63	0.37	1.00	8
2016	0.62	0.38	1.00	8
2017	0.62	0.38	1.00	8
2018	0.62	0.38	1.00	8
2019	0.62	0.38	1.00	3
2020	0.62	0.38	1.00	3
2021	0.62	0.38	1.00	5
2022	0.62	0.38	1.00	5
2023	0.62	0.38	1.00	5
2024	0.62	0.38	1.00	5
2025	0.62	0.38	1.00	5
2026	0.61	0.39	1.00	5
2027	0.61	0.39	1.00	5
2028	0.61	0.39	1.00	5
2029	0.61	0.39	1.00	4
2030	0.61	0.39	1.00	4
				4
				9
	Water Use			5
Year	Single Family (gallons a day/ capita)	Multi-family (gallons a day/ capita)	Non-Res (gallons a day/ employee)	11
2001	108.00	75.00	86.00	11
2002	107.79	74.72	85.97	11
2003	107.59	74.45	85.93	11
2004	107.38	74.17	85.90	5
2005	107.17	73.90	85.86	5
2006	106.97	73.62	85.83	10
2007	106.76	73.34	85.79	10
2008	106.55	73.07	85.76	1

2009	106.34	72.79	85.72	1
2010	106.14	72.52	85.69	1
2011	105.93	72.24	85.66	1
2012	105.72	71.97	85.62	1
2013	105.52	71.69	85.59	
2014	105.31	71.41	85.55	
2015	105.10	71.14	85.52	
2016	104.90	70.86	85.48	
2017	104.69	70.59	85.45	
2018	104.48	70.31	85.41	
2019	104.28	70.03	85.38	LU Type
2020	104.07	69.76	85.34	6
2021	103.86	69.48	85.31	6
2022	103.66	69.21	85.28	6
2023	103.45	68.93	85.24	6
2024	103.24	68.66	85.21	6

2025	103.03	68.38	85.17	6
2026	102.83	68.10	85.14	6
2027	102.62	67.83	85.10	9
2028	102.41	67.55	85.07	2
2029	102.21	67.28	85.03	5
2030	102.00	67.00	85.00	5
				8
				8
				8
				8
				3
				3
				5
				5
				5
				5
				5
				5
				5
				5
				4
				4
				4
				9
				5
				11
				11
				11
				11
				5
				5
				10
				10
				1
				1
				1
				1
				1

Source:

San Francisco PUC Wholesale Customer Water Demand Projections Technical Report,
Prepared by URS Corporation and Maddaeus Water Management, November 2004.
Tables 3-2 and 5-2

	Mitigated Water and Wastewater		
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	677.5500	0.0000	
CH4 metric tons/year:	0.0056	0.0000	
N20 metric tons/year:	0.0031	0.0000	
CO2e metric tons/year:	678.6345	0.0000	
CO2e metric tons/year:			**678.63**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

Outdoor Gallons/year	Mitigated Indoor Gallons/Year	Mitigated Outdoor Gallons/year	Total Mitigated kwh/year
0.00	0.00	0.00	
155,150,142.65	242,670,735.93	155,150,142.65	
155,150,142.65	242,670,735.93	155,150,142.65	
	1313091.35	543025.50	1,856,116.85

mployee	
	1,700.00
	1,300.00
	1,300.00
	1,000.00
	900.00
	766.00
Safety	750.00
	600.00
	550.00
	500.00
	400.00

Energy Information Administration Special Topics 1995 Building Activities Other, Square
http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/office/office_hov

BASELINE	
% indoor water use	0.000

% outdoor water use	0.000
Total	0.00

Baseline Demand - Indoor	0.00	kwh/year
Baseline Demand - Outdoor	0.00	kwh/year
Total	0.00	kwh/year

imate Action Registry, 2009

From URBEMIS: Project Data		
Land Use Residential	Units	Projected Water Use (gallons/yr)
Single Family Residential	1,000.00	109,456,200.00
Multi-family Residential	3,440.00	222,931,780.00
Land Use Nonresidential	Square Feet	Projected Water Use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	106.50	4,313,528.07

User Provided Blank Land Use Data: Pro
Land Use Name

Junior High School	102.00	4,131,266.32
High School	0.00	0.00
Junior College	0.00	0.00
University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00
City Park	2,376.20	56,708,879.19
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	0.00	0.00
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	3.60	279,225.00
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00

General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		397,820,878.58

From URBEMIS: Baseline Data		
Land Use Residential	Units	Projected Water use (gallons/yr)
Single Family Residential	0.00	0.00
Multi-family Residential	0.00	0.00
Land Use Nonresidential	Square Feet	Projected Water use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	0.00	0.00
Junior High School	0.00	0.00
High School	0.00	0.00
Junior College	0.00	0.00

User Provided Blank Land Use Data: Ba
Land Use Name

University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00
City Park	0.00	0.00
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	0.00	0.00
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	0.00	0.00
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00
General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		0.00

feet per employee.
vmanyempl.htm

›ject Data
Projected Water Use (gallons/yr)

seline Data
Projected Water Use (gallons/yr)

Solid Waste

Baseline is currently: OFF

	Unmitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	5.72	0.00	
Truck Haul CH4 (metric tons/year):	0.0000	0.0000	
Truck Haul CO2e (metric tons/year):	5.72	0.00	
Landfill Offgasing (CO2e metric tons/year):	3,267.28	0.00	
Total Solid Waste (CO2e metric tons/year):	3,273.00	0.00	
Total Solid Waste (CO2e metric tons/year):			**3,273.00**

Project Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Base

Clear All User Overrides

Project	Defaults	User Override
Average Round Trip Truck Haul Distance (miles):	40.00	10.00
Solid Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	340.34	
Miles per Year:	3,403.42	

Avg Round Trip
Solid

PROJECT Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	1,000.00	2.23	2,231.98	1,080.00
Multi-Family Residential	3,440.00	1.17	4,024.80	3,715.20
PROJECT Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)

Day-Care Center	0.00	0.0013	0.00	
Elementary School	106.50	0.0013	138.45	
Junior High School	102.00	0.0013	132.60	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	2,376.20	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	0.00	0.0024	0.00	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	3.60	0.0108	38.88	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	

Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	
			6,566.71	

BASELINE Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	0.00	2.23	0.00	
Multi-Family Residential	0.00	1.17	0.00	
BASELINE Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	0.00	0.0013	0.00	
Junior High School	0.00	0.0013	0.00	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	0.00	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	

Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	0.00	0.0024	0.00	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	0.00	0.0108	0.00	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	

WARM Emission Factors			
	Landfilling, No Recovery	Landfilling w/Flaring	Landfilling w/Energy Recovery
Mixed Solid Waste	3.10	0.64	0.30
Emissions (from EMFAC2007, 35 mph for Heavy-Heavy Duty Trucks			
Year	CO2 (grams/mile)	CH4 (grams/mile)	
2005	1,723.50	0.06	

2006	1,733.00	0.06	
2007	1,740.80	0.06	
2008	1,748.40	0.05	
2009	1,755.80	0.05	
2010	1,763.00	0.05	
2011	1,769.30	0.04	
2012	1,775.00	0.04	
2013	1,780.40	0.04	
2014	1,785.10	0.03	
2015	1,789.20	0.03	
2016	1,792.90	0.03	
2017	1,796.20	0.03	
2018	1,799.00	0.02	
2019	1,801.60	0.02	
2020	1,803.60	0.02	
2025	1,809.70	0.02	
2030	1,812.10	0.01	
2035	1,813.40	0.01	

2040	1,813.80	0.01	

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse G
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requ

	Mitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	5.72	0.00	
Truck Haul CH4 (metric tons/year):	0.0000	0.0000	
Truck Haul CO2e (metric tons/year):	5.72	0.00	
Landfill Offgasing (CO2e metric tons/year):	3,267.28	0.00	
Total Solid Waste (CO2e metric tons/year):	3,273.00	0.00	
Total Solid Waste (CO2e metric tons/year):			**3,273.00**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

eline Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Baseline	Defaults	User Override
Truck Haul Distance (miles):	40.00	
Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	0.00	
Miles per Year:	0.00	

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
691.20	1,080.00
2,377.73	3,715.20
CO2 (metric tons/yr)	

User Provided Blank Land Use Data: Project Data

0.00	0.00
88.61	138.45
84.86	132.60
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
24.88	38.88
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

Land Use Name	**Solid Waste Generation/Year (tons)**	**CO2e (metric tons/year)**
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00
		0.00

0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
3,267.28	5,105.13

		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
0.00	0.00
0.00	0.00
CO2 (metric tons/yr)	
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Solid Waste Generation/Year (tons)	CO2e (metric tons/year)
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00
		0.00

Gas Reductions

irements for Gasoline and Diesel

Agriculture

Baseline is currently: OFF

Agriculture			
	Project	**Baseline**	**Project - Baseline**
CO2 metric tons/year:	0.000	0.00	
CH4 metric tons/year:	0.000	0.00	
N2O metric tons/year:	0.000	0.00	
CO2e metric tons/year:	0.00	0.00	
CO2e metric tons/year:			**0.00**

Clear All User Inputs

PROJECT Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

PROJECT Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year

Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.00	0.00	0.00

PROJECT Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.0000	0.0000	0.00
Diesel Fuel		0.00	0.0000	0.0000	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.0000	0.0000	0.00

PROJECT Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

PROJECT Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Note: GHG emissions associated with water use assumed to be accounted for in the fuel and electricity consumption.

Animal Type	Enteric Fermentation Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons N2O/head/yr)
Beef Cattle	0.085556	0.002158	0.000000
Beef Replacement Heifers	0.066208	0.001914	0.000000
Steers	0.033349	0.001470	0.000000
Bulls	0.053000	0.002793	0.000000
Milk Cows	0.116520	0.164125	0.000738
Dry Cows	0.116520	0.165125	0.000738
Heifers, 15-24 months	0.067047	0.002210	0.001620
Heifers, 7-14 months	0.042376	0.002210	0.001620
Heifers, 4-6 months	0.042376	0.002210	0.001620
Calves	0.042376	0.002210	0.001620

Chickens (fryers)	0.000000	0.000018	0.000002
Goats, Hogs, Pigs	0.001500	0.028228	0.000141
Sheeps and Lambs	0.008000	0.000781	0.000002
Turkeys	0.000000	0.000086	0.000010

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Table C.3, CCAR	Table c.6, CCAR	Table C.6, CCAR
CO2	CH4	N2O
kg/gallon	grams/gallon	grams/gallon
8.81	1.26	0.22
10.15	1.44	0.26
5.74	0.09	0.41

Table C.7, CCAR	Table C.9, CCAR	Table C.9, CCAR
kg/gallon	kg/gallon	kg/gallon
8.8100	0.0014	0.0001
10.1500	0.0015	0.0001
5.7400	0.0010	0.0001

Table E.1, CCAR CAMX (#/MWh)	Table E.2, CCAR (#/MWh)	Table E.2, CCAR(#,MWh)
878.7100	0.0067	0.0037

0.01425	metric tons N2O per ton organic and synthetic fertilzers applied

BASELINE Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

BASELINE Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year

Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.00	0.00	0.00

BASELINE Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.00	0.00	0.00
		0.00	0.0000	0.0000	0.00

BASELINE Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

BASELINE Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Off-Road Equipment

Baseline is currently: OFF

	Project					Off-Road Equipment
	Gasoline	Diesel Fuel	Propane	Total		
CO2 metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2 metric tons/year:
CH4 metric tons/year:	0.0000	0.0000	0.0000	0.00		CH4 metric tons/year:
N2O metric tons/year:	0.0000	0.0000	0.0000	0.00		N2O metric tons/year:
CO2e metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2e metric tons/year:
CO2e metric tons/year:						

Off-Road Equipment (typically used in commercial and industrial activities, e.g., forklifts, compressors, etc.)
(This does not include landscape maintenance equipment, which is accounted for in the area source calculations.)

PROJECT Fuel Use	Total Gallons Used per Year
Gasoline	
Diesel Fuel	
Propane	

Clear All User Inputs

BASELINE Fuel Use
Gasoline
Diesel Fuel
Propane

Table C.3, CCAR CO2 kg/gallon	Table c.6, CCAR CH4 grams/gallon	Table C.6, CCAR N2O grams/gallon
8.81	0.50	0.22
10.15	0.58	0.26
5.74	0.09	0.41

Low Carbon Fuel Standard

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

Baseline				Project - Baseline
Gasoline	Diesel Fuel	Propane	Total	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
				0.00

Total Gallons Used per Year

Refrigerants

Baseline is currently: OFF

	Unmitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

PROJECT Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)	Default GWP (weighted average)	User Override of GWP
Centralized		0.00		3,219.92	
Cold Storage		0.00		2,366.92	
Process Cooling		0.00		1,204.20	
Refrigerant Condensing Units		0.00		2,265.28	
PROJECT AC Systems					
Centrifugal Chiller (large)		0.00		1,349.34	
Centrifugal Chiller (medium)		0.00		1,349.34	
Packaged Chiller (medium)		0.00		1,349.34	
Unitary AC (small)		0.00		1,685.29	

* If user knows type of refrigerant proposed, then the default GWP value should be used to override the default value

Average Leak Rates (Annual	Default
Refrigeration Systems	Leak Rate (%)

Refigerant Losses: Based Primarily on Appendix B: California Facilities and

	Centralized	10.00
	Cold Storage	10.00
	Process Cooling	7.00
	Refrigerant Condensing Units	5.00
AC Systems		
	Centrifugal Chiller (large)	2.00
	Centrifugal Chiller (medium)	1.00
	Packaged Chiller (medium)	3.50
	Unitary AC (small)	5.00

Refrigerant Distribution						
Centralized Systems		GWP	2,010.00	2,011.00	2,012.00	2,013.00
	HCFC-22	1,500	42.20			
	R-404A	3,260	39.70			
	R-507	3,300	18.10			
	Weighted GWP		2,524.52	2,594.06	2,663.60	2,733.14
Cold Storage						
	CFC-12	8,100	2.00			
	HCFC-22	1,500	56.60			
	R-404A	3,260	26.20			
	R-502	4,500	6.60			
	R-507	3,300	8.60			
	Weighted GWP		2,445.92	2,438.02	2,430.12	2,422.22
Process Cooling						
	CFC-11	3,800	1.00			
	CFC-12	8,100	15.60			
	HCFC-22	1,500	22.00			
	HCFC-123	90	23.30			
	HFC-134A	1,300	33.30			
	R-401A	970	0.40			
	R-404a	3,260	2.70			
	R-410A	1,725	0.90			
	R-507	3,300	0.90			
	Weighted GWP		2,222.60	2,120.76	2,018.92	1,917.08

Refrigerated Condensing Units						
	CFC-12	8,100	2.20			
	HCFC-22	1,500	30.40			
	HFC-134a	1,300	40.40			
	R-404a	3,260	19.00			
	R-507	3,300	8.00			
	Weighted GWP		2,042.80	2,065.05	2,087.30	2,109.54
Chillers						
	CFC-11	3,800	2.60			
	CFC-12	8,100	0.90			
	HCFC-22	1,500	73.80			
	HCFC-123	90	6.80			
	CFC-114	9,300	0.10			
	HFC-134A	1,300	14.10			
	HFC-236fa	6,300	0.40			
	R-407a	1,526	1.00			
	R-410a	1,725	0.10			
	R-500	6,010	0.20			
	Weighted GWP		1,531.63	1,513.40	1,495.17	1,476.94
Unitary AC						
	HCFC-22	1,500	78.40			
	HFC-134a	1,300	0.10			
	R-407a	1,526	0.30			
	R-410a	1,725	21.20			
	Weighted GWP		1,547.58	1,561.35	1,575.12	1,588.89

	Mitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

CO2e (metric tons/year)	**BASELINE** Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)
0.00	Centralized		0.00	
0.00	Cold Storage		0.00	
0.00	Process Cooling		0.00	
0.00	Refrigerant Condensing Units		0.00	
	BASELINE AC Systems			
0.00	Centrifugal Chiller (large)		0.00	
0.00	Centrifugal Chiller (medium)		0.00	
0.00	Packaged Chiller (medium)		0.00	
0.00	Unitary AC (small)		0.00	

* If user knows type of refrigerant proposed, then the default GWP value should be used to ov

Clear All User Inputs and Overrides

2,014.00	2,015.00	2,016.00	2,017.00	2,018.00	2,019.00	2,020.00
						3.00
						65.20
						31.80
2,802.68	2,872.22	2,941.76	3,011.30	3,080.84	3,150.38	3,219.92
						0.00
						28.10
						54.20
						0.00
						17.70
2,414.32	2,406.42	2,398.52	2,390.62	2,382.72	2,374.82	2,366.92
						0.00
						0.00
						11.00
						29.40
						44.50
						0.30
						8.80
						3.40
						2.60
1,815.24	1,713.40	1,611.56	1,509.72	1,407.88	1,306.04	1,204.20

						0.00
						7.30
						44.50
						33.30
						14.90
2,131.79	2,154.04	2,176.29	2,198.54	2,220.78	2,243.03	2,265.28
						0.00
						0.00
						32.30
						8.20
						0.00
						32.30
						0.10
						18.20
						8.90
						0.00
1,458.71	1,440.48	1,422.25	1,404.02	1,385.79	1,367.57	1,349.34
						15.00
						0.70
						1.50
						82.80
1,602.66	1,616.43	1,630.21	1,643.98	1,657.75	1,671.52	1,685.29

Default GWP (weighted average)	User Override of GWP	CO2e (metric tons/year)
2,594.06		0.00
2,438.02		0.00
2,120.76		0.00
2,065.05		0.00

1,513.40		0.00
1,513.40		0.00
1,513.40		0.00
1,561.35		0.00

erride the default value

Mitigation

Mitigation Category

Mitigation Category	Check=On	Mitigation Options	MMBtu/year Reduced	
Electricity & Natural Gas	☐	Solar Water Heater	5000	
	☐	Tankless Water Heater	5000	
			kwh/year reduced	MMBtu/year Increased
	☐	Cool Roofs/Green Roofs	5000	2
			% Increase In Energy Efficiency	
	☐	Increase Energy Efficiency Beyond Title 24	10	
			kwh/year generated	
	☐	Onsite Renewable Energy Systems - Solar	5000	
	☐	Onsite Renewable Energy Systems - Wind	5000	
	☐	Onsite Renewable Energy Systems - Other	5000	

Water and Wastewater			% Reduction Outdoor Use
	☐	Drought Tolerant Landscaping	10
			% Reduction Indoor Use
	☐	Low Flush Toilets	2

Solid Waste			Solid Waste Reduction %
	☐	Reduce Solid Waste by the Following Percentage	10

Refrigerants			% Reduction
	☐	Use Ammonia of CFCs or HCFCs	50

Offsets / Credits			Metric Tons CO2e/Year
	☐	Purchase Emission Offsets / Credits	5000

Calculations for Mitigation Selections

	0
	0
	0
Change in Natural Gas Use (MMBtu/year)	0
	0
	0
	0
	0
Change in Electricity Use (kwh/year)	0
Percentage Reduction in Elec and Nat Gas Use	0
% Reduction Outdoor H2O Use	0
% Reduction Indoor Water Use	0
Solid Waste Reduction %	0
% Reduction in CFC/HCFC Use	0

Baseline is currently: OFF

	Unmitigated Project-Baseline Emissions CO2e/year	Mitigated Project-Baseline Emissions CO2e/year
Transportation	42,584.87	42,584.87
Area Sources	31.95	31.95
Electricity	15,450.26	15,450.26
Natural Gas	8,930.55	8,930.55
Water and Wastewater	1,322.71	678.63
Solid Waste	3,273.00	3,273.00
Ag	0.00	0.00
Off-Road Equipment	0.00	0.00
Refrigerants	0.00	0.00
Sequestration	N/A	0.00
Emission Credits	N/A	0.00
Totals	71,593.34	70,949.26

Carbon Sequestration

Project Year:	2030
Emissions (CO2e metric tons/year):	0.00

Gas	Type	Unit of Measure	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Carbon dioxide	Total Storage	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon dioxide	Annual Increase	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Number of Trees Planted					
	Hardwoods			Conifers		
Year	Fast	Medium	Slow	Fast	Medium	Slow
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

Clear All User Inputs

Sequestration in Data Year 1 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 2 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00

Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 3 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 4 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00

Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 5 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 6 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 7 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00

Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 8 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00

Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 9 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00

Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 10 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00

Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00

Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 11 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00

Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 12 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00

Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 13 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00

Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00

Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 14 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00

Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 15 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.

	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00

Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
Fast-growth hardwoods	H	F	14	0	0.539	0.0	27.5	0.0	0.00
Med-growth hardwoods	H	M	14	0	0.527	0.0	15.8	0.0	0.00
Slow-growth hardwoods	H	S	14	0	0.512	0.0	7.5	0.0	0.00
Fast-growth conifers	C	F	14	0	0.539	0.0	19.6	0.0	0.00
Med-growth conifers	C	M	14	0	0.527	0.0	10.8	0.0	0.00
Slow-growth conifers	C	S	14	0	0.512	0.0	4.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Transportation

Operational Mitigation Residential

Transportation Detail for Operational Mitigation

Operational NonResidential Mitigation

Operational Annual Miscellaneous Detail

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Transportation

Land Use Detail

Land Use Description	Units	UnitType	Acreage	Trip Rate Unmitigated	Total Trips Unmitigated
Single family housing	1000	dwelling units	166.7	9.57	9570
Apartments low rise	3130	dwelling units	391.3	9.57	29954.1
Apartments high rise	124	dwelling units	6.2	6.65	824.6
Condo/townhouse general	186	dwelling units	11.6	5.81	1080.66
Elementary school	1500	students		1.29	1935
Junior high school	1200	students		1.62	1944
City park	109.1	acres		1.59	173.47
Goverment office building	3.6	1000 sq ft		52.5	189

Total VMT Unmitigated	Trip Rate Mitigated	Total Trips Mitigated	Total VMT Mitigated
71633.96	0	0	0
224214.29	0	0	0
6172.35	0	0	0
8089.02	0	0	0
10278.72	0	0	0
11096.35	0	0	0
989.37	0	0	0
851.61	0	0	0

Help

Bay Area Air Quality Management District Greenhouse Gas Model (BGM) Version: 1.1.9 Beta

Step 1: Enable Macros

Macros must be enabled for this model to operate correctly. The method for enabling macros for this spreadsheet differs depending on the security settings in Excel.

Step 2: Open an Urbemis Project File, or Refresh Urbemis Data

BGM depends on the data and results from an URBEMIS project file. Two URBEMIS files can be specified : a project file and (optionally) a baseline file. To open a file, or to refresh the data in this spreadsheet after an URBEMIS file has been modified, go to the Settings tab by clicking on the Open an URBEMIS Project File link to the right . Select the URBEMIS file(s) that you want to import and hit the refresh data button. Please make sure that the Emfac Database Location is correct before clicking either of the Refresh buttons.

Step 3: Data Entry Options

The bright yellow areas on each tab represent data entry locations, if applicable to your project. In some cases, there are optional data inputs (shown in peach). Some tabs, such as transportation and area sources, do not require any data input, as results are imported directly from URBEMIS. Certain other tabs - electricty & natural gas, water & wastewater, and solid waste - require some minor amount of user input, although most of the information used to estimate emissions is imported from URBEMIS. And for certain tabs, - ag, off-road, refrigerants, and carbon sequestration - the user must enter project specific information to obtain emission estimates.

Step 4: View Results

The Results Tab presents a graphical and tabular view of the results of the Greenhouse Gas Calculator. Both a summary and detailed report are included on the Results tab. The user also has the option of selected project specific mitigation on the Mitigation tab and on the Carbon Sequestration tab.

LINKS

Assistance provided by:

Rimpo and Associates, Inc.

Mitigation

Carbon Sequestration

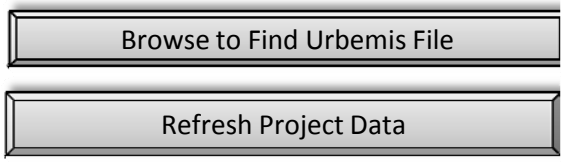
Enter data in yellow cells with values applicable to your project

Enter data in peach cells if you have information specific to your project; these values will be used in place of the default values

Settings

Open an Urbemis Project File

Step 1: Click the Browse button to find the file:
Step 2: Click the Refresh Project button to read the data, make an Urbemis run and import the results:

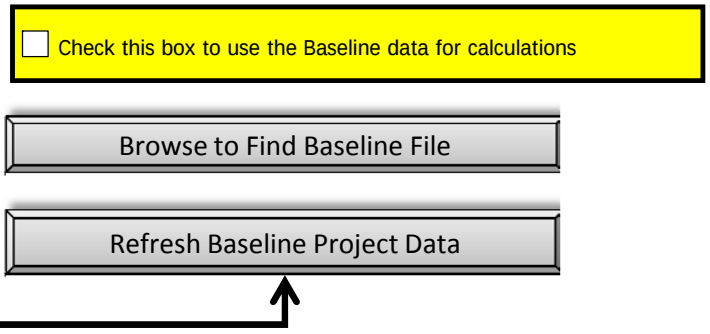


The Urbemis Project File Has Been Changed

Step 1: Make sure the directory path and file name are correct in the Project File Name field.
Step 2: Click the Refresh button to update the data:

Establish a Baseline Run for Comparison

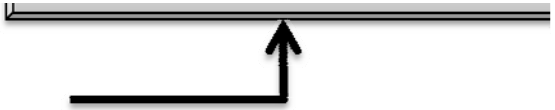
Step 1: Click the Browse button to find the Urbemis Project File representing the baseline:
Step 2: Click the Refresh Baseline button to read the baseline project data, make an Urbemis run and import the results:



Clear All Project and Baseline Data

Step 1: Save the current spreadsheet, as this will cause all of the current data to be lost

Step 2: Click the Clear Data button to reset the spreadsheet



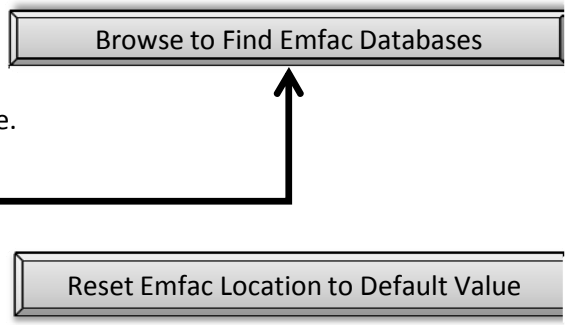
Change the Emfac Data Location

Emfac data files are stored, by default, in a directory Microsoft calls Common Application Data.

This Data location may have been changed in the Urbemis config file.

If the Emfac files cannot be found, use the Browse button to find the databases:

Or, try resetting the Emfac Database Location to its default value:



Current Project File Name

C:\Documents and Settings\leemanw\My Documents\SunCreek\Urbemis\SunCreek Specific Plan- ID area and operational.urb

Project Data Last Refreshed On:

8/17/10 9:41 AM

Project Name:

SunCreek Specific Plan- PP

ns

Baseline Project File Name

Baseline Data Last Refreshed On:

Baseline Project Name:

Emfac Database Location

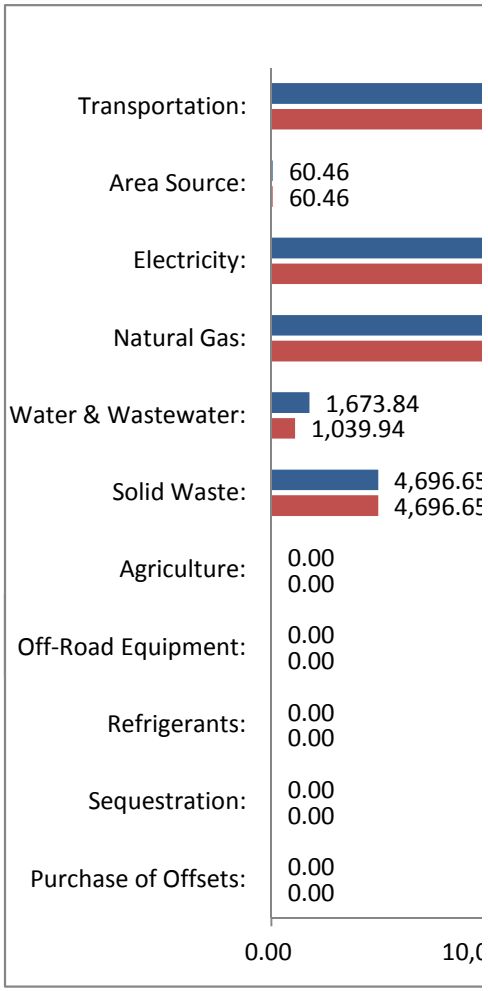
C:\Documents and Settings\leemanw\Application Data\Urbemis\Version9a\Data

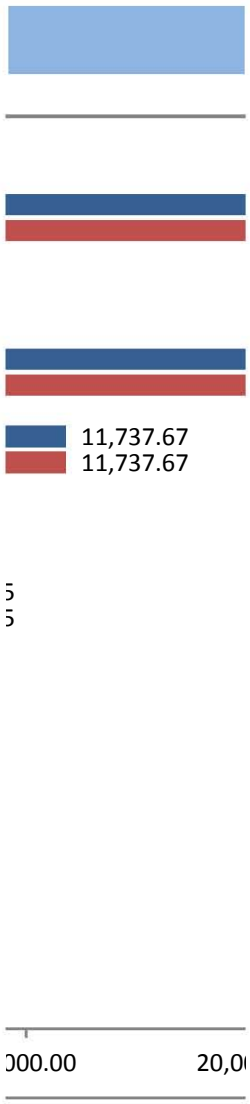
Summary Results

Project Name: SunCreek Specific Plan- PP
Project and Baseline Years: 2030 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	62,703.91	62,703.91
Area Source:	60.46	60.46
Electricity:	21,690.37	21,690.37
Natural Gas:	11,737.67	11,737.67
Water & Wastewater:	1,673.84	1,039.94
Solid Waste:	4,696.65	4,696.65
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	102,562.91	101,929.01

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline




11,737.67
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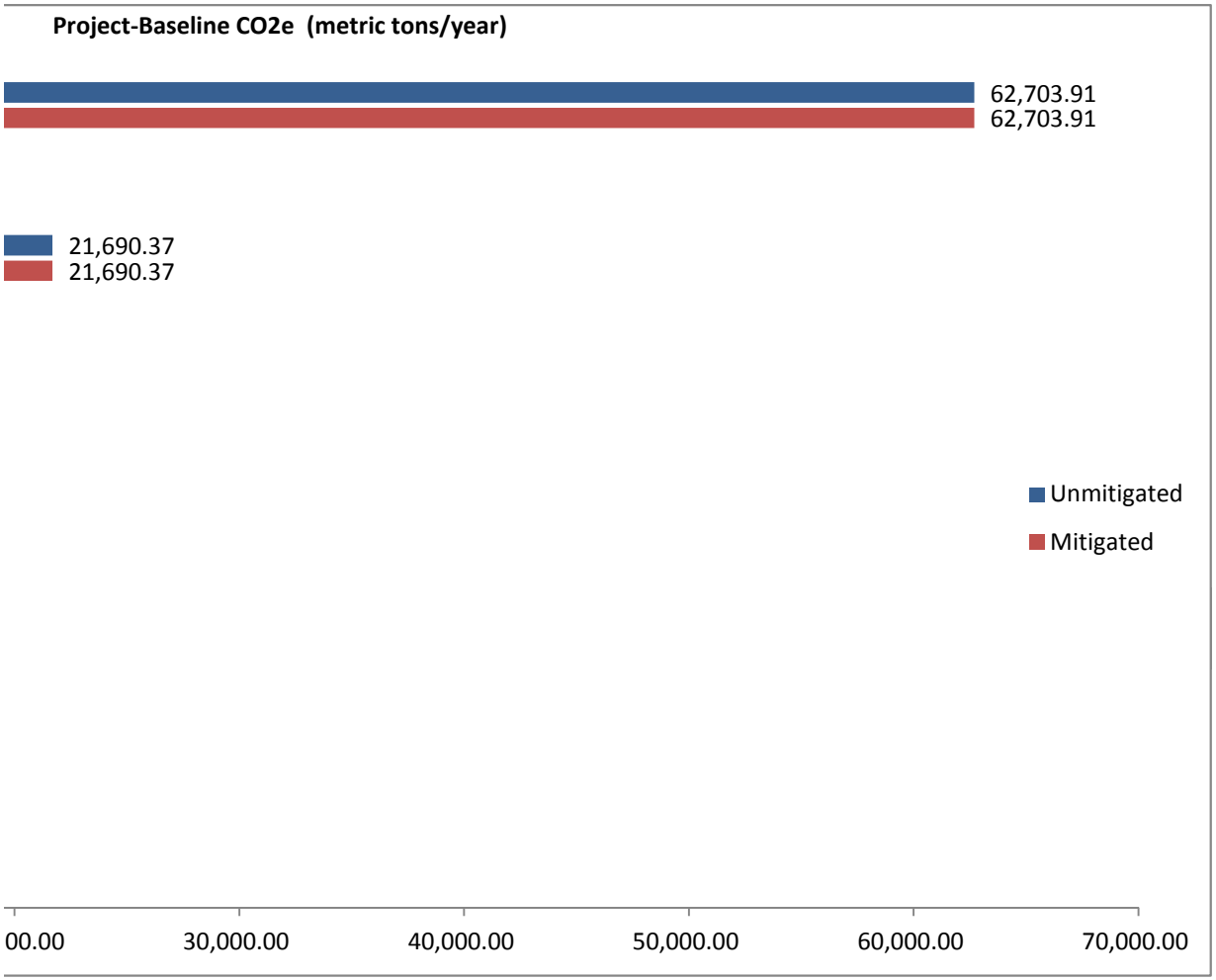

Project-Baseline CO2e (metric tons/year)
62,703.91
62,703.91
21,690.37
21,690.37
Unmitigated
Mitigated
00.00
30,000.00
40,000.00
50,000.00
60,000.00
70,000.00

Transportation

Baseline is Currently: OFF

Target Year:	2030	2011	
Unmitigated Transportation	**Project**	**Baseline**	**Project-Baseline**
Operational Emissions from URBEMIS (CO2 tons/year)	91,420.51	0.00	
Metric Ton Adjustment (CO2 metric tons/year)	82,958.72	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):	64,190.43	0.00	
US EPA Adjustment (CO2e metric tons/year):	67,568.87	0.00	
Low Carbon Fuels Rule Adjustment (CO2e metric tons/year)	62,703.91	0.00	
Total (CO2e metric tons/year):			**62,703.91**

The BGM User's Manual describes in detail each step used to convert URBEMIS's transportation CO2 emissions to total CO2e.
These steps include converting from English to Metric units, adjusting for the Pavley Rule, converting CO2 to CO2e, and adjusting for the Low

Reference

U.S. EPA assumption that GHG emissions from other pollutants - CH4, N20, and hydrofluorcarbons (HFCs) from leaking air conditioners accou

Jump to the Following Transportation Related Tabs:

Transportation Detail for Operational Mitigation
Land Use Detail

	Don't Need to Adjust this amt	Unadjusted Amount Affected by Pavley	Adjusted	Adusted
	Not Affected by Pavley	LDA/ LDT1/ LDT2/ MDV	LDA	LDT1
Pavley Calculations - Project Unmitigated	13,056.73	69,901.99	24,265.42	7,706.02
Pavley Calculations - Baseline Unmitigated	0.00	0.00	0.00	0.00
Pavley Calculations - Project Mitigated	13,056.73	69,901.99	24,265.42	7,706.02
Pavley Calculations - Baseline Mitigated	0.00	0.00	0.00	0.00

Pavley Adjustment

Year	% LDA CO2 Emissions	% LDT1 CO2 Emissions	% LDT2 CO2 Emissions	% MDV CO2 Emissions
2009	41.59%	12.33%	19.61%	9.71%
2010	41.72%	12.39%	19.54%	9.61%
2011	41.83%	12.45%	19.50%	9.50%
2012	41.89%	12.50%	19.47%	9.40%
2013	41.94%	12.56%	19.46%	9.32%
2014	41.98%	12.62%	19.46%	9.27%
2015	42.00%	12.67%	19.47%	9.24%
2016	42.05%	12.76%	19.50%	9.23%
2017	42.02%	12.81%	19.51%	9.21%
2018	41.98%	12.84%	19.52%	9.21%
2019	41.95%	12.87%	19.53%	9.21%
2020	41.92%	12.89%	19.55%	9.22%
2025	41.92%	12.96%	19.67%	9.28%

2030	42.15%	13.03%	19.76%	9.32%
2035	42.21%	13.11%	19.80%	9.35%
2040	42.24%	13.14%	19.90%	9.44%

Low Carbon Fuels Standards

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Gre
Subarticle 7. Low Carbon Fuel Stand
Section 95482. Average Carbon Inte

2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Mitigated Transportation	Target Year:	2030	2011	
		Project	**Baseline**	**Project-Baseline**
Operational Vehicles from URBEMIS (CO2 tons/year):		91,420.51	0.00	
Metric Ton Adjustment (CO2 metric tons/year):		82,958.72	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):		64,190.43	0.00	
US EPA Adjustment (CO2e metric tons/year):		67,568.87	0.00	
Low Carbon Fuels Adjustment (CO2e metric tons/year):		62,703.91	0.00	
Total (CO2e metric tons/year):				**62,703.91**

' Carbon Fuels Rule.

ınt for 5 percent of emissions from vehicles, after accounting for global warming potentail of each GHG.

Adusted	Adusted	Adjusted
LDT2	MDV	4 totaled
13,010.75	6,151.52	51,133.70
0.00	0.00	0.00
13,010.75	6,151.52	51,133.70
0.00	0.00	0.00

% LDA/LDT1/LDT2/MDV	% everything else	% CO2 Reduction - LDA	% CO2 Reduction - LDT1	% CO2 Reduction - LDT2	% CO2 Reduction MDV
83.26%	16.74%	0.00%	0.00%	0.07%	0.08%
83.26%	16.74%	0.35%	0.25%	0.45%	0.48%
83.27%	16.73%	1.75%	1.34%	1.31%	1.29%
83.27%	16.73%	4.07%	3.27%	2.60%	2.44%
83.28%	16.72%	6.31%	5.26%	3.88%	3.61%
83.33%	16.67%	8.48%	7.26%	5.17%	4.83%
83.38%	16.62%	10.74%	9.38%	6.54%	6.17%
83.54%	16.46%	12.96%	11.56%	7.94%	7.54%
83.55%	16.45%	15.03%	13.58%	9.27%	8.88%
83.55%	16.45%	16.94%	15.43%	10.54%	10.16%
83.57%	16.43%	18.72%	17.13%	11.74%	11.40%
83.59%	16.41%	20.37%	18.69%	12.89%	12.59%
83.82%	16.18%	26.87%	24.86%	17.60%	17.42%

84.26%	15.74%	30.60%	28.71%	20.63%	20.47%
84.47%	15.53%	32.38%	31.17%	22.43%	22.29%
84.72%	15.28%	33.27%	32.61%	23.60%	23.53%

eenhouse Gas Reductions
ard
nsity Requirements for Gasoline and Diesel

12.00	13.00	14.00	15.00	16.00	
LDA					
0.0000	0.0000	0.0006	0.0007	0.0013	Step 1 - Figure out year
0.0020	0.0022	0.0036	0.0044	0.0122	Step 2- Emissions from HDVs, etc. do not change
0.0102	0.0117	0.0106	0.0117	0.0442	Step 3 - Adjust emissions from LDA's, etc. individually
0.0237	0.0286	0.0209	0.0221	0.0953	Step 4 - Add Step 2 and Step 3 emissions
0.0366	0.0460	0.0313	0.0328	0.1466	
0.0492	0.0634	0.0416	0.0438	0.1980	
0.0623	0.0819	0.0527	0.0560	0.2529	
0.0751	0.1008	0.0639	0.0684	0.3082	
0.0871	0.1184	0.0746	0.0806	0.3608	
0.0983	0.1345	0.0848	0.0923	0.4099	
0.1087	0.1492	0.0945	0.1035	0.4559	
0.1183	0.1628	0.1037	0.1143	0.4990	
0.1560	0.2164	0.1414	0.1581	0.6719	

0.1770	0.2497	0.1655	0.1856	0.7779
0.1871	0.2708	0.1799	0.2021	0.8400
0.1922	0.2832	0.1890	0.2131	0.8775

Area Source

Baseline is currently: OFF

Unmitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	23.022	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	24.192	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.040	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.042	0.000	
Total (CO2e metric tons/year):	60.465	0.000	
Total (CO2e metric tons/year):			**60.465**

The URBEMIS area source calculations include five separate categories: 1) natural gas fuel combustion, 2) hearth fuel combu tab imports CO2 emissions calculated by URBEMIS for hearths and landscape maintenance equipment only. BGM then calcul consumer products and architectural coatings categories within URBEMIS do not generate GHG emissions and, consequently Instead, BGM calculates natural gas use and the resulting CO2 emissions in the Electricity and Natural Gas tab.

Mitigated Area Source

	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	23.022	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	24.192	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.040	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.042	0.000	
Total (CO2e metric tons/year):	60.465	0.000	
Total (CO2e metric tons/year):			**60.465**

stion, 3) landscape maintenance equipment, 4) consumer products, and 5) architectural coatings. This Area Source ates N2O and CH4 emissions for woodstoves and fireplaces and uses the resulting emissions to calculate CO2e. The ', are not used by BGM. Also, URBEMIS' estimate of CO2 from natural gas fuel combustion is not used by BGM.

Electricity and Natural Gas

Baseline is currently: OFF

Unmitigated Electricity			
	Project	Baseline	Project-Baseline
CO2 metric tons/year CO2:	21,655.711	0.000	
CH4 metric tons/year CH4:	0.180	0.000	
N2O metric tons/year:	0.100	0.000	
CO2e metric tons/year:	21,690.372	0.000	
CO2e metric tons/year:			**21,690.37**

Unmitigated Natural Gas			
	Project	Baseline	Project-Baseline
CO2 metric tons/year:	11707.66	0.000	
CH4 metric tons/year:	1.10	0.000	
N2O metric tons/year:	0.02	0.000	
CO2e metric tons/year:	11737.67	0.000	
CO2e metric tons/year:			**11,737.67**

Project Climate Zone Location: ○ Zone 4 ◉ Zone 5

PROJECT Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	3,659.000	6,047.000	22,125.973	33,198.107
Multi Family Residential	2,065.000	3,685.000	7,609.525	18,735.745

PROJECT Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	106.50	586.33	975.54	356.11
Junior High School	102.00	561.56	934.32	341.06
High School	202.40	1,114.31	1,853.98	676.77
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	2,090.88	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00	0.00	0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	254.00	3,212.57	3,627.12	1,324.03
Hardware/Paint Store	0.00	0.00		0.00

Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00
Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	0.00	0.00	0.00	0.00
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

BASELINE Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	0.000	6,047.000	0.000	
Multi Family Residential	0.000	3,685.000	0.000	

BASELINE Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	0.00	0.00		0.00
Junior High School	0.00	0.00		0.00
High School	0.00	0.00		0.00
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	0.00	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00		0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	0.00	0.00		0.00
Hardware/Paint Store	0.00	0.00		0.00
Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00

Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	0.00	0.00		0.00
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

Greenhouse Gas Emission Factors

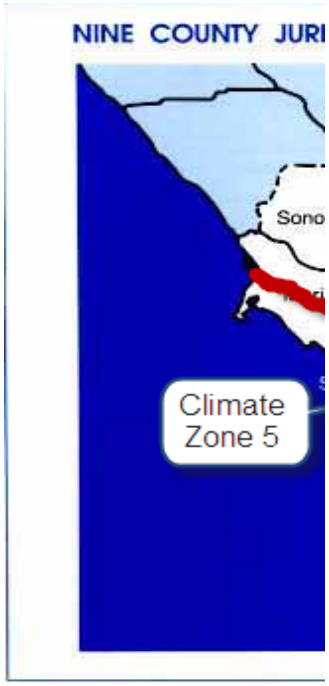
	CO2	CH4	N2O	
Electricity	804.54	0.0067	0.0037	
Units	lbs CO2/mwh	lbs CH4/mwh	lbs N20/MWH	Source: Climate Acti
Natural Gas	53.06	0.005	0.0001	
Units	CO2 (kg CO2/MMBtu)	CH4 (kg/MMBtu)	N2O(kg/MMBtu)	Source: Climate Acti

Summary	Climate Zone 4 Summary		Climate Zone 5 Summary	
	Electric (kwh/sf)	Natural Gas (MM Btu/sf)	Electric (kwh/sf)	Natural Gas (MM Btu/sf)
All Commercial	13.64	0.02949	13.19	0.03169
Small Office (<30,000 sf)	17.37	0.00975	14.49	0.02999
Large Office (>= 30,000 sf)	23.51	0.02639	15.25	0.02328
Restaurant	35.97	0.21255	31.41	0.17108

Retail	12.82	0.00301	12.65	0.00551
Food Store	44.34	0.02577	40.26	0.04135
Refrigerated Warehouse	10.12	0.00388	24.86	0.01869
Unrefrigerated Warehouse	4.26	0.00440	4.56	0.00169
School	6.65	0.02271	5.51	0.01958
College	9.75	0.02754	12.70	0.04185
Health	23.03	0.11871	18.40	0.11073
Lodging	9.33	0.04695	10.03	0.03915
Miscellaneous	9.81	0.02965	8.98	0.02724
All Offices	21.35	0.02052	15.14	0.02426
All Warehouses	5.82	0.00426	7.71	0.00433

Mitigated Electricity			
	Project	Baseline	Project-Baseline
CO2 metric tons/year CO2:	21,655.711	0.000	
CH4 metric tons/year CH4:	0.180	0.000	
N2O metric tons/year:	0.100	0.000	
CO2e metric tons/year:	21,690.372	0.000	
CO2e metric tons/year:			**21,690.37**

Mitigated Natural Gas			
	Project	Baseline	Project-Baseline
CO2 metric tons/year:	11707.657	0.000	
CH4 metric tons/year:	1.103	0.000	
N2O metric tons/year:	0.022	0.000	
CO2e metric tons/year:	11737.666	0.000	
CO2e metric tons/year:			**11,737.67**



***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

For detailed climate
http://capabilities.itr

Clear All User Overrides

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
12,118.514	0.1009	0.0557	49.600	181,486.400	135,383.000
6,839.227	0.0570	0.0315	22.500	46,462.500	76,405.000

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0030	0.0016	2,085.24	1,964.93	104.07	0.00981
0.0028	0.0016	1,997.14	1,881.90	99.67	0.00939
0.0056	0.0031	3,962.94	3,734.28	197.78	0.01864
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0110	0.0061	1,400.13	1,681.48	89.06	0.00839
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
0.000	0.0000	0.0000	49.600	0.000	
0.000	0.0000	0.0000	22.500	0.000	

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

zone map see:
ron.com/CeusWeb/FCZMap.aspx

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	Elec Use	Gas Use
7,170.385	0.676	0.014	33,198.11	135,383.00
4,046.692	0.381	0.008	18,735.75	76,405.00

Residential Energy Use from California Statewide Residentia
See also Executive Summary for Natural Gas Use by Building

N2O (metric tons/yr)	Elect Use	Gas Use
0.00000	0.00	0.00
0.00020	975.54	1,964.93
0.00019	934.32	1,881.90
0.00037	1,853.98	3,734.28
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00017	3,627.12	1,681.48
0.00000	0.00	0.00

User Provided Blank Land Use Data: Project Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
	59,324.82	221,050.59	Unmitigated
	59,324.82	221,050.59	Mitigated
	59,324.82	221,050.59	Mitigated %

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.000	0.000	0.000
0.000	0.000	0.000

N2O (metric tons/yr)
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
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0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

al Appliance Saturation Study, Tables 2-9, 2-13,2-15,2-4,2-5,2-23,2-24
g Age

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Water and Wastewater

Baseline is currently: OFF

Unmitigated Water and Wastewater			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	1671.1684	0.0000	
CH4 metric tons/year:	0.0139	0.0000	
N20 metric tons/year:	0.0077	0.0000	
CO2e metric tons/year:	1673.8431	0.0000	
CO2e metric tons/year:			**1,673.84**

Clear All User Overrides

	User Override of Model Estimates (af/yr)	Model Estimate (af/yr)	Total Gallons/year	Indoor Gallons/Year
Baseline Water Demand		0.00	0	0.00
Project Water Demand	3,010.80	1,870.58	609,622,232	371,869,561.66
Net Increase in Water Demand		1,870.58	609,622,232	371,869,561.66

Houshold Size	
Single Family	Multi-family
2.94	2.65

Land Use Type	**Square feet per e**
1	Warehouse
2	Public Assembly
3	Lodging
4	Food Sales
5	Retail and Service
6	Education
7	Public Order and
8	Food Service
9	Other
10	Health Care
11	Office

PROJECT	
% indoor water use	0.610

% outdoor water use	0.390
Total	1.00

Project Water Demand - Indoor	3238722.82	kwh/year
Project Water Demand - Outdoor	1339365.36	kwh/year
Total	4578088.18	kwh/year

Greenhouse Gas Emission Factors	CO2	CH4	N2O
Electricity	804.54	0.0067	0.0037
Units	#/mwh	#/mwh	#/mwh

from California Cl

Table ES-1. Recommended revised water-energy proxies

	Indoor Uses		Outdoor Uses	
	Northern California kWh/MG	Southern California kWh/MG	Northern California kWh/MG	Southern California kWh/MG
Water Supply and Conveyance	2,117	9,727	2,117	9,727
Water Treatment	111	111	111	111
Water Distribution	1,272	1,272	1,272	1,272
Wastewater Treatment	1,911	1,911	0	0
Regional Total	5,411	13,022	3,500	11,111

from Navigant, 2006

Gallons Per Acre Foot:	325,900.00

Indoor vs. Outdoor Water Use				
	Indoor	Outdoor	Total	
2001	0.64	0.36	1.00	
2002	0.64	0.36	1.00	
2003	0.64	0.36	1.00	LU Type
2004	0.64	0.36	1.00	6
2005	0.64	0.36	1.00	6

2006	0.63	0.37	1.00	6
2007	0.63	0.37	1.00	6
2008	0.63	0.37	1.00	6
2009	0.63	0.37	1.00	6
2010	0.63	0.37	1.00	6
2011	0.63	0.37	1.00	9
2012	0.63	0.37	1.00	2
2013	0.63	0.37	1.00	5
2014	0.63	0.37	1.00	5
2015	0.63	0.37	1.00	8
2016	0.62	0.38	1.00	8
2017	0.62	0.38	1.00	8
2018	0.62	0.38	1.00	8
2019	0.62	0.38	1.00	3
2020	0.62	0.38	1.00	3
2021	0.62	0.38	1.00	5
2022	0.62	0.38	1.00	5
2023	0.62	0.38	1.00	5
2024	0.62	0.38	1.00	5
2025	0.62	0.38	1.00	5
2026	0.61	0.39	1.00	5
2027	0.61	0.39	1.00	5
2028	0.61	0.39	1.00	5
2029	0.61	0.39	1.00	4
2030	0.61	0.39	1.00	4
				4
				9
	Water Use			5
Year	Single Family (gallons a day/ capita)	Multi-family (gallons a day/ capita)	Non-Res (gallons a day/ employee)	11
2001	108.00	75.00	86.00	11
2002	107.79	74.72	85.97	11
2003	107.59	74.45	85.93	11
2004	107.38	74.17	85.90	5
2005	107.17	73.90	85.86	5
2006	106.97	73.62	85.83	10
2007	106.76	73.34	85.79	10
2008	106.55	73.07	85.76	1

2009	106.34	72.79	85.72	1
2010	106.14	72.52	85.69	1
2011	105.93	72.24	85.66	1
2012	105.72	71.97	85.62	1
2013	105.52	71.69	85.59	
2014	105.31	71.41	85.55	
2015	105.10	71.14	85.52	
2016	104.90	70.86	85.48	
2017	104.69	70.59	85.45	
2018	104.48	70.31	85.41	
2019	104.28	70.03	85.38	LU Type
2020	104.07	69.76	85.34	6
2021	103.86	69.48	85.31	6
2022	103.66	69.21	85.28	6
2023	103.45	68.93	85.24	6
2024	103.24	68.66	85.21	6

2025	103.03	68.38	85.17	6
2026	102.83	68.10	85.14	6
2027	102.62	67.83	85.10	9
2028	102.41	67.55	85.07	2
2029	102.21	67.28	85.03	5
2030	102.00	67.00	85.00	5
				8
				8
				8
				8
				3
				3
				5
				5
				5
				5
				5
				5
				5
				5
				4
				4
				4
				9
				5
				11
				11
				11
				11
				5
				5
				10
				10
				1
				1
				1
				1
				1

Source:

San Francisco PUC Wholesale Customer Water Demand Projections Technical Report,
Prepared by URS Corporation and Maddaeus Water Management, November 2004.
Tables 3-2 and 5-2

	Mitigated Water and Wastewater		
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	1038.2802	0.0000	
CH4 metric tons/year:	0.0086	0.0000	
N20 metric tons/year:	0.0048	0.0000	
CO2e metric tons/year:	1039.9421	0.0000	
CO2e metric tons/year:			**1,039.94**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

Outdoor Gallons/year	Mitigated Indoor Gallons/Year	Mitigated Outdoor Gallons/year	Total Mitigated kwh/year
0.00	0.00	0.00	
237,752,670.57	371,869,561.66	237,752,670.57	
237,752,670.57	371,869,561.66	237,752,670.57	
	2012186.20	832134.35	2,844,320.55

mployee	
	1,700.00
	1,300.00
	1,300.00
	1,000.00
	900.00
	766.00
Safety	750.00
	600.00
	550.00
	500.00
	400.00

Energy Information Administration Special Topics 1995 Building Activities Other, Square
http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/office/office_hov

BASELINE	
% indoor water use	0.000

% outdoor water use	0.000
Total	0.00

Baseline Demand - Indoor	0.00	kwh/year
Baseline Demand - Outdoor	0.00	kwh/year
Total	0.00	kwh/year

imate Action Registry, 2009

From URBEMIS: Project Data		
Land Use Residential	Units	Projected Water Use (gallons/yr)
Single Family Residential	3,659.00	400,500,235.80
Multi-family Residential	2,065.00	133,823,873.75
Land Use Nonresidential	Square Feet	Projected Water Use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	106.50	4,313,528.07

User Provided Blank Land Use Data: Pro
Land Use Name

Junior High School	102.00	4,131,266.32	
High School	202.40	8,197,728.46	
Junior College	0.00	0.00	
University/College	0.00	0.00	
Library	0.00	0.00	
Place of Worship	0.00	0.00	
City Park	2,090.88	49,899,655.38	
Racquet Club	0.00	0.00	
Racquetball/Health	0.00	0.00	
Quality Restaurant	0.00	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.00	
Fast Food w/Drive Through	0.00	0.00	
Fast Food w/o Drive Through	0.00	0.00	
Hotel	0.00	0.00	
Motel	0.00	0.00	
Free-Standing Discount Store	0.00	0.00	
Free-Standing Discount Superstore	0.00	0.00	
Discount Club	0.00	0.00	
Regional Shopping Center	0.00	0.00	
Electronic Superstore	0.00	0.00	
Home Improvement Superstore	0.00	0.00	
Strip Mall	254.00	8,755,944.44	
Hardware/Paint Store	0.00	0.00	
Supermarket	0.00	0.00	
Convenience Market	0.00	0.00	
Convenience Market w/gas pumps	0.00	0.00	
Gasoline Service Station	0.00	0.00	
Bank w/Drive Through	0.00	0.00	
General Office Building	0.00	0.00	
Office Park	0.00	0.00	
Government Office Building	0.00	0.00	
Government Civic Center	0.00	0.00	
Pharmacy w/Drive Through	0.00	0.00	
Pharmacy w/o Drive Through	0.00	0.00	
Medical Office Building	0.00	0.00	
Hospital	0.00	0.00	
Warehouse	0.00	0.00	

General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		609,622,232.23

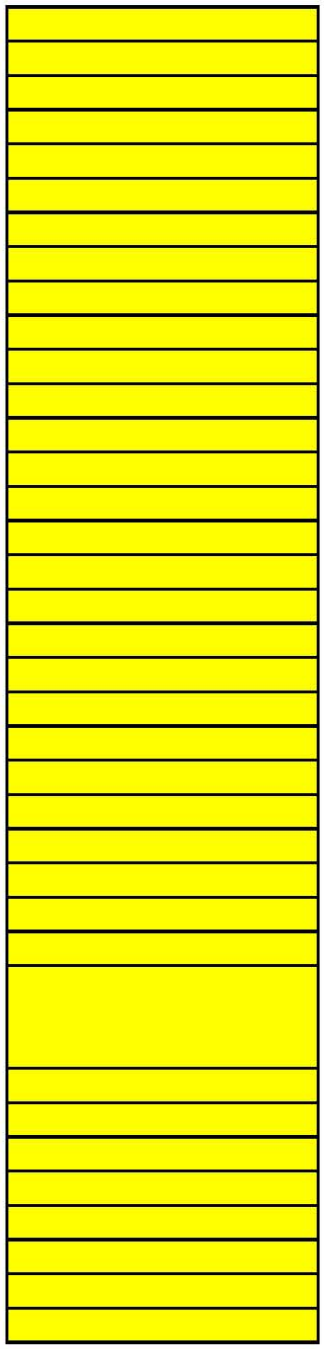
From URBEMIS: Baseline Data		
Land Use Residential	Units	Projected Water use (gallons/yr)
Single Family Residential	0.00	0.00
Multi-family Residential	0.00	0.00
Land Use Nonresidential	Square Feet	Projected Water use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	0.00	0.00
Junior High School	0.00	0.00
High School	0.00	0.00
Junior College	0.00	0.00

User Provided Blank Land Use Data: Ba
Land Use Name

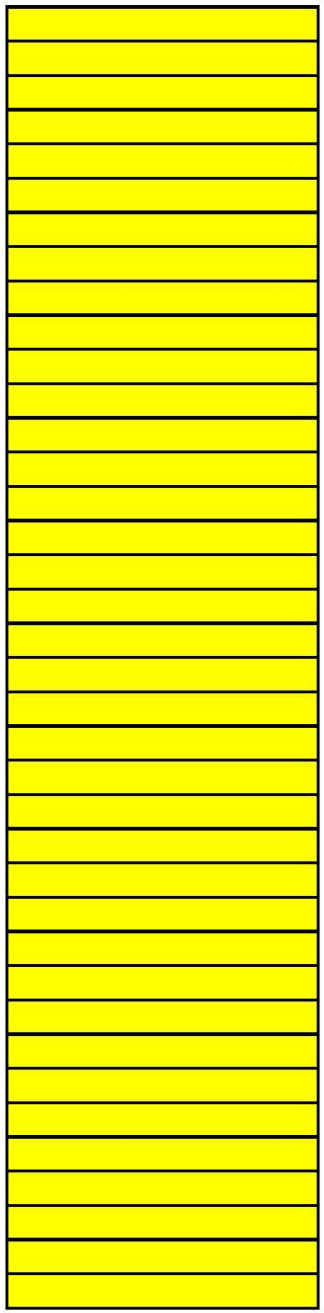
University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00
City Park	0.00	0.00
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	0.00	0.00
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	0.00	0.00
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00
General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		0.00

feet per employee.
vmanyempl.htm

›ject Data
Projected Water Use (gallons/yr)



seline Data
Projected Water Use (gallons/yr)



Solid Waste

Baseline is currently: OFF

	Unmitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	8.21	0.00	
Truck Haul CH4 (metric tons/year):	0.0001	0.0000	
Truck Haul CO2e (metric tons/year):	8.21	0.00	
Landfill Offgasing (CO2e metric tons/year):	4,688.44	0.00	
Total Solid Waste (CO2e metric tons/year):	4,696.65	0.00	
Total Solid Waste (CO2e metric tons/year):			**4,696.65**

Project Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Base

Clear All User Overrides

Project	Defaults	User Override
Average Round Trip Truck Haul Distance (miles):	40.00	10.00
Solid Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	488.38	
Miles per Year:	4,883.79	

Avg Round Trip
Solid

PROJECT Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	3,659.00	2.23	8,166.80	3,951.72
Multi-Family Residential	2,065.00	1.17	2,416.05	2,230.20
PROJECT Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)

Day-Care Center	0.00	0.0013	0.00	
Elementary School	106.50	0.0013	138.45	
Junior High School	102.00	0.0013	132.60	
High School	202.40	0.0013	263.12	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	2,090.88	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	254.00	0.0024	609.60	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	0.00	0.0108	0.00	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	

Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	
			11,726.62	

BASELINE Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	0.00	2.23	0.00	
Multi-Family Residential	0.00	1.17	0.00	
BASELINE Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	0.00	0.0013	0.00	
Junior High School	0.00	0.0013	0.00	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	0.00	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	

Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	0.00	0.0024	0.00	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	0.00	0.0108	0.00	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	

WARM Emission Factors			
	Landfilling, No Recovery	Landfilling w/Flaring	Landfilling w/Energy Recovery
Mixed Solid Waste	3.10	0.64	0.30
Emissions (from EMFAC2007, 35 mph for Heavy-Heavy Duty Trucks			
Year	CO2 (grams/mile)	CH4 (grams/mile)	
2005	1,723.50	0.06	

2006	1,733.00	0.06	
2007	1,740.80	0.06	
2008	1,748.40	0.05	
2009	1,755.80	0.05	
2010	1,763.00	0.05	
2011	1,769.30	0.04	
2012	1,775.00	0.04	
2013	1,780.40	0.04	
2014	1,785.10	0.03	
2015	1,789.20	0.03	
2016	1,792.90	0.03	
2017	1,796.20	0.03	
2018	1,799.00	0.02	
2019	1,801.60	0.02	
2020	1,803.60	0.02	
2025	1,809.70	0.02	
2030	1,812.10	0.01	
2035	1,813.40	0.01	

2040	1,813.80	0.01	

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse G
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requ

	Mitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	8.21	0.00	
Truck Haul CH4 (metric tons/year):	0.0001	0.0000	
Truck Haul CO2e (metric tons/year):	8.21	0.00	
Landfill Offgasing (CO2e metric tons/year):	4,688.44	0.00	
Total Solid Waste (CO2e metric tons/year):	4,696.65	0.00	
Total Solid Waste (CO2e metric tons/year):			**4,696.65**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

eline Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Baseline	Defaults	User Override
Truck Haul Distance (miles):	40.00	
Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	0.00	
Miles per Year:	0.00	

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
2,529.10	3,951.72
1,427.33	2,230.20
CO2 (metric tons/yr)	

User Provided Blank Land Use Data: Project Data

0.00	0.00
88.61	138.45
84.86	132.60
168.40	263.12
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
390.14	609.60
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
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0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

Land Use Name	**Solid Waste Generation/Year (tons)**	**CO2e (metric tons/year)**
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
4,688.44	7,325.69

		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
0.00	0.00
0.00	0.00
CO2 (metric tons/yr)	
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
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0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Solid Waste Generation/Year (tons)	CO2e (metric tons/year)
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00

Gas Reductions

irements for Gasoline and Diesel

Agriculture

Baseline is currently: OFF

	Agriculture		
	Project	**Baseline**	**Project - Baseline**
CO2 metric tons/year:	0.000	0.00	
CH4 metric tons/year:	0.000	0.00	
N2O metric tons/year:	0.000	0.00	
CO2e metric tons/year:	0.00	0.00	
CO2e metric tons/year:			**0.00**

Clear All User Inputs

PROJECT Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

PROJECT Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00

		0.00	0.00	0.00	0.00

PROJECT Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.0000	0.0000	0.00
Diesel Fuel		0.00	0.0000	0.0000	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.0000	0.0000	0.00

PROJECT Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

PROJECT Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Note: GHG emissions associated with water use assumed to be accounted for in the fuel and electricity consumption.

Animal Type	Enteric Fermentation Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons N2O/head/yr)
Beef Cattle	0.085556	0.002158	0.000000
Beef Replacement Heifers	0.066208	0.001914	0.000000
Steers	0.033349	0.001470	0.000000
Bulls	0.053000	0.002793	0.000000
Milk Cows	0.116520	0.164125	0.000738
Dry Cows	0.116520	0.165125	0.000738
Heifers, 15-24 months	0.067047	0.002210	0.001620
Heifers, 7-14 months	0.042376	0.002210	0.001620
Heifers, 4-6 months	0.042376	0.002210	0.001620
Calves	0.042376	0.002210	0.001620
Chickens (fryers)	0.000000	0.000018	0.000002
Goats, Hogs, Pigs	0.001500	0.028228	0.000141
Sheeps and Lambs	0.008000	0.000781	0.000002
Turkeys	0.000000	0.000086	0.000010

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

Table C.3, CCAR	Table c.6, CCAR	Table C.6, CCAR
CO2	CH4	N2O
kg/gallon	grams/gallon	grams/gallon
8.81	1.26	0.22
10.15	1.44	0.26
5.74	0.09	0.41

Table C.7, CCAR	Table C.9, CCAR	Table C.9, CCAR
kg/gallon	kg/gallon	kg/gallon
8.8100	0.0014	0.0001
10.1500	0.0015	0.0001
5.7400	0.0010	0.0001

Table E.1, CCAR CAMX (#/MWh)	Table E.2, CCAR (#/MWh)	Table E.2, CCAR(#,MWh)
878.7100	0.0067	0.0037

0.01425	metric tons N2O per ton organic and synthetic fertilzers applied

BASELINE Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

BASELINE Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00

		0.00	0.00	0.00	0.00

BASELINE Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.00	0.00	0.00
		0.00	0.0000	0.0000	0.00

BASELINE Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

BASELINE Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Off-Road Equipment

Baseline is currently: OFF

	Project					Off-Road Equipment
	Gasoline	Diesel Fuel	Propane	Total		
CO2 metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2 metric tons/year:
CH4 metric tons/year:	0.0000	0.0000	0.0000	0.00		CH4 metric tons/year:
N2O metric tons/year:	0.0000	0.0000	0.0000	0.00		N2O metric tons/year:
CO2e metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2e metric tons/year:
CO2e metric tons/year:						

Off-Road Equipment (typically used in commercial and industrial activities, e.g., forklifts, compressors, etc.)
(This does not include landscape maintenance equipment, which is accounted for in the area source calculations.)

PROJECT Fuel Use	Total Gallons Used per Year
Gasoline	
Diesel Fuel	
Propane	

Clear All User Inputs

BASELINE Fuel Use
Gasoline
Diesel Fuel
Propane

Table C.3, CCAR CO2 kg/gallon	Table c.6, CCAR CH4 grams/gallon	Table C.6, CCAR N2O grams/gallon
8.81	0.50	0.22

10.15	0.58	0.26
5.74	0.09	0.41

Low Carbon Fuel Standard

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

Baseline				Project - Baseline
Gasoline	Diesel Fuel	Propane	Total	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
				0.00

Total Gallons Used per Year

Refrigerants

Baseline is currently: OFF

	Unmitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

PROJECT Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)	Default GWP (weighted average)	User Override of GWP
Centralized		0.00		3,219.92	
Cold Storage		0.00		2,366.92	
Process Cooling		0.00		1,204.20	
Refrigerant Condensing Units		0.00		2,265.28	
PROJECT AC Systems					
Centrifugal Chiller (large)		0.00		1,349.34	
Centrifugal Chiller (medium)		0.00		1,349.34	
Packaged Chiller (medium)		0.00		1,349.34	
Unitary AC (small)		0.00		1,685.29	

* If user knows type of refrigerant proposed, then the default GWP value should be used to override the default value

Average Leak Rates (Annual	Default
Refrigeration Systems	Leak Rate (%)

Refigerant Losses: Based Primarily on Appendix B: California Facilities and

	Centralized	10.00
	Cold Storage	10.00
	Process Cooling	7.00
	Refrigerant Condensing Units	5.00
AC Systems		
	Centrifugal Chiller (large)	2.00
	Centrifugal Chiller (medium)	1.00
	Packaged Chiller (medium)	3.50
	Unitary AC (small)	5.00

Refrigerant Distribution						
Centralized Systems		GWP	2,010.00	2,011.00	2,012.00	2,013.00
	HCFC-22	1,500	42.20			
	R-404A	3,260	39.70			
	R-507	3,300	18.10			
	Weighted GWP		2,524.52	2,594.06	2,663.60	2,733.14
Cold Storage						
	CFC-12	8,100	2.00			
	HCFC-22	1,500	56.60			
	R-404A	3,260	26.20			
	R-502	4,500	6.60			
	R-507	3,300	8.60			
	Weighted GWP		2,445.92	2,438.02	2,430.12	2,422.22
Process Cooling						
	CFC-11	3,800	1.00			
	CFC-12	8,100	15.60			
	HCFC-22	1,500	22.00			
	HCFC-123	90	23.30			
	HFC-134A	1,300	33.30			
	R-401A	970	0.40			
	R-404a	3,260	2.70			
	R-410A	1,725	0.90			
	R-507	3,300	0.90			
	Weighted GWP		2,222.60	2,120.76	2,018.92	1,917.08

Refrigerated Condensing Units						
	CFC-12	8,100	2.20			
	HCFC-22	1,500	30.40			
	HFC-134a	1,300	40.40			
	R-404a	3,260	19.00			
	R-507	3,300	8.00			
	Weighted GWP		2,042.80	2,065.05	2,087.30	2,109.54
Chillers						
	CFC-11	3,800	2.60			
	CFC-12	8,100	0.90			
	HCFC-22	1,500	73.80			
	HCFC-123	90	6.80			
	CFC-114	9,300	0.10			
	HFC-134A	1,300	14.10			
	HFC-236fa	6,300	0.40			
	R-407a	1,526	1.00			
	R-410a	1,725	0.10			
	R-500	6,010	0.20			
	Weighted GWP		1,531.63	1,513.40	1,495.17	1,476.94
Unitary AC						
	HCFC-22	1,500	78.40			
	HFC-134a	1,300	0.10			
	R-407a	1,526	0.30			
	R-410a	1,725	21.20			
	Weighted GWP		1,547.58	1,561.35	1,575.12	1,588.89

	Mitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

CO2e (metric tons/year)	**BASELINE** Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)
0.00	Centralized		0.00	
0.00	Cold Storage		0.00	
0.00	Process Cooling		0.00	
0.00	Refrigerant Condensing Units		0.00	
	BASELINE AC Systems			
0.00	Centrifugal Chiller (large)		0.00	
0.00	Centrifugal Chiller (medium)		0.00	
0.00	Packaged Chiller (medium)		0.00	
0.00	Unitary AC (small)		0.00	

* If user knows type of refrigerant proposed, then the default GWP value should be used to ov

Clear All User Inputs and Overrides

2,014.00	2,015.00	2,016.00	2,017.00	2,018.00	2,019.00	2,020.00
						3.00
						65.20
						31.80
2,802.68	2,872.22	2,941.76	3,011.30	3,080.84	3,150.38	3,219.92
						0.00
						28.10
						54.20
						0.00
						17.70
2,414.32	2,406.42	2,398.52	2,390.62	2,382.72	2,374.82	2,366.92
						0.00
						0.00
						11.00
						29.40
						44.50
						0.30
						8.80
						3.40
						2.60
1,815.24	1,713.40	1,611.56	1,509.72	1,407.88	1,306.04	1,204.20

						0.00
						7.30
						44.50
						33.30
						14.90
2,131.79	2,154.04	2,176.29	2,198.54	2,220.78	2,243.03	2,265.28
						0.00
						0.00
						32.30
						8.20
						0.00
						32.30
						0.10
						18.20
						8.90
						0.00
1,458.71	1,440.48	1,422.25	1,404.02	1,385.79	1,367.57	1,349.34
						15.00
						0.70
						1.50
						82.80
1,602.66	1,616.43	1,630.21	1,643.98	1,657.75	1,671.52	1,685.29

Default GWP (weighted average)	User Override of GWP	CO2e (metric tons/year)
2,594.06		0.00
2,438.02		0.00
2,120.76		0.00
2,065.05		0.00

1,513.40		0.00
1,513.40		0.00
1,513.40		0.00
1,561.35		0.00

erride the default value

Mitigation

Mitigation Category

Mitigation Category	Check=On	Mitigation Options	MMBtu/year Reduced	
Electricity & Natural Gas	☐	Solar Water Heater	5000	
	☐	Tankless Water Heater	5000	
			kwh/year reduced	MMBtu/year Increased
	☐	Cool Roofs/Green Roofs	5000	2
			% Increase In Energy Efficiency	
	☐	Increase Energy Efficiency Beyond Title 24	10	
			kwh/year generated	
	☐	Onsite Renewable Energy Systems - Solar	5000	
	☐	Onsite Renewable Energy Systems - Wind	5000	
	☐	Onsite Renewable Energy Systems - Other	5000	

Water and Wastewater			% Reduction Outdoor Use
	☐	Drought Tolerant Landscaping	10
			% Reduction Indoor Use
	☐	Low Flush Toilets	2

Solid Waste			Solid Waste Reduction %
	☐	Reduce Solid Waste by the Following Percentage	10

Refrigerants			% Reduction
	☐	Use Ammonia of CFCs or HCFCs	50

Offsets / Credits			Metric Tons CO2e/Year
	☐	Purchase Emission Offsets / Credits	5000

Calculations for Mitigation Selections

	0
	0
	0
Change in Natural Gas Use (MMBtu/year)	0
	0
	0
	0
	0
Change in Electricity Use (kwh/year)	0
Percentage Reduction in Elec and Nat Gas Use	0
% Reduction Outdoor H2O Use	0
% Reduction Indoor Water Use	0
Solid Waste Reduction %	0
% Reduction in CFC/HCFC Use	0

Baseline is currently: OFF

	Unmitigated Project-Baseline Emissions CO2e/year	Mitigated Project-Baseline Emissions CO2e/year
Transportation	62,703.91	62,703.91
Area Sources	60.46	60.46
Electricity	21,690.37	21,690.37
Natural Gas	11,737.67	11,737.67
Water and Wastewater	1,673.84	1,039.94
Solid Waste	4,696.65	4,696.65
Ag	0.00	0.00
Off-Road Equipment	0.00	0.00
Refrigerants	0.00	0.00
Sequestration	N/A	0.00
Emission Credits	N/A	0.00
Totals	102,562.91	101,929.01

Carbon Sequestration

Project Year:	2030
Emissions (CO2e metric tons/year):	0.00

Gas	Type	Unit of Measure	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Carbon dioxide	Total Storage	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon dioxide	Annual Increase	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Number of Trees Planted					
	Hardwoods			Conifers		
Year	Fast	Medium	Slow	Fast	Medium	Slow
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

Clear All User Inputs

Sequestration in Data Year 1 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 2 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00

Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 3 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 4 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00

Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 5 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 6 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 7 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00

Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 8 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00

Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 9 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00

Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 10 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00

Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00

Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 11 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00

Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 12 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00

Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 13 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00

Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00

Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 14 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00

Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 15 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.

	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00

Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
Fast-growth hardwoods	H	F	14	0	0.539	0.0	27.5	0.0	0.00
Med-growth hardwoods	H	M	14	0	0.527	0.0	15.8	0.0	0.00
Slow-growth hardwoods	H	S	14	0	0.512	0.0	7.5	0.0	0.00
Fast-growth conifers	C	F	14	0	0.539	0.0	19.6	0.0	0.00
Med-growth conifers	C	M	14	0	0.527	0.0	10.8	0.0	0.00
Slow-growth conifers	C	S	14	0	0.512	0.0	4.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Transportation

Operational Mitigation Residential

Transportation Detail for Operational Mitigation

Operational NonResidential Mitigation

Operational Annual Miscellaneous Detail

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Land Use Detail

Land Use Description	Units	UnitType	Acreage	Trip Rate Unmitigated	Total Trips Unmitigated
Single family housing	3659	dwelling units	609.8	9.57	35016.63
Apartments low rise	1384	dwelling units	173	9.57	13244.88
Apartments high rise	681	dwelling units	31.4	6.65	4528.65
Elementary school	1500	students		1.29	1935
Junior high school	1200	students		1.62	1944
High school	2200	students		1.71	3762
City park	96	acres		1.59	152.64
Strip mall	254	1000 sq ft		48.92	12425.68

Total VMT Unmitigated	Trip Rate Mitigated	Total Trips Mitigated	Total VMT Mitigated	
262108.66	0	0	0	
99141.4	0	0	0	
33898.13	0	0	0	
10278.72	0	0	0	
11096.35	0	0	0	
23037.83	0	0	0	
870.57	0	0	0	
50504.86	0	0	0	

Help

Bay Area Air Quality Management District Greenhouse Gas Model (BGM) Version: 1.1.9 Beta

Step 1: Enable Macros

Macros must be enabled for this model to operate correctly. The method for enabling macros for this spreadsheet differs depending on the security settings in Excel.

Step 2: Open an Urbemis Project File, or Refresh Urbemis Data

BGM depends on the data and results from an URBEMIS project file. Two URBEMIS files can be specified : a project file and (optionally) a baseline file. To open a file, or to refresh the data in this spreadsheet after an URBEMIS file has been modified, go to the Settings tab by clicking on the Open an URBEMIS Project File link to the right . Select the URBEMIS file(s) that you want to import and hit the refresh data button. Please make sure that the Emfac Database Location is correct before clicking either of the Refresh buttons.

Step 3: Data Entry Options

The bright yellow areas on each tab represent data entry locations, if applicable to your project. In some cases, there are optional data inputs (shown in peach). Some tabs, such as transportation and area sources, do not require any data input, as results are imported directly from URBEMIS. Certain other tabs - electricty & natural gas, water & wastewater, and solid waste - require some minor amount of user input, although most of the information used to estimate emissions is imported from URBEMIS. And for certain tabs, - ag, off-road, refrigerants, and carbon sequestration - the user must enter project specific information to obtain emission estimates.

Step 4: View Results

The Results Tab presents a graphical and tabular view of the results of the Greenhouse Gas Calculator. Both a summary and detailed report are included on the Results tab. The user also has the option of selected project specific mitigation on the Mitigation tab and on the Carbon Sequestration tab.

LINKS

Open an Urbemis Project File

Summary Results

Transportation

Area Source

Electricity and Natural Gas

Water and Wastewater

Solid Waste

Agriculture

Off-Road Equipment

Refrigerants

Mitigation

Carbon Sequestration

Enter data in yellow cells

Enter data in peach cells

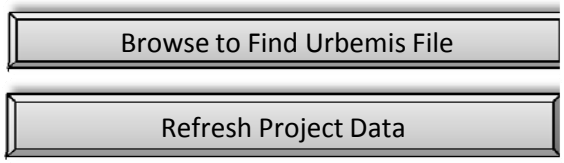
Assistance provided by:
Rimpo and Associates, Inc.

; with values applicable to your project
if you have information specific to your project; these values will be used in place of the default values

Settings

Open an Urbemis Project File

Step 1: Click the Browse button to find the file:
Step 2: Click the Refresh Project button to read the data, make an Urbemis run and import the results:

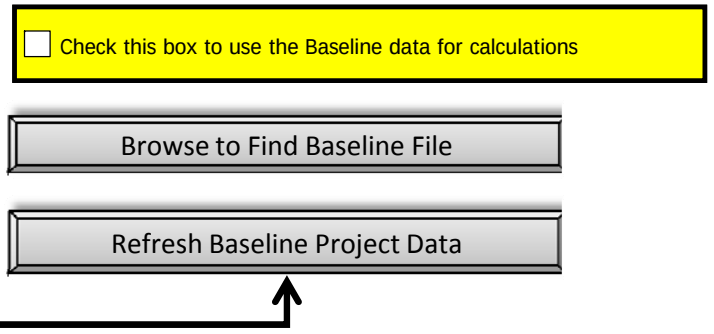


The Urbemis Project File Has Been Changed

Step 1: Make sure the directory path and file name are correct in the Project File Name field.
Step 2: Click the Refresh button to update the data:

Establish a Baseline Run for Comparison

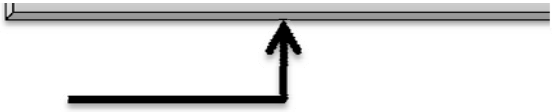
Step 1: Click the Browse button to find the Urbemis Project File representing the baseline:
Step 2: Click the Refresh Baseline button to read the baseline project data, make an Urbemis run and import the results:



Clear All Project and Baseline Data

Step 1: Save the current spreadsheet, as this will cause all of the current data to be lost

Step 2: Click the Clear Data button to reset the spreadsheet



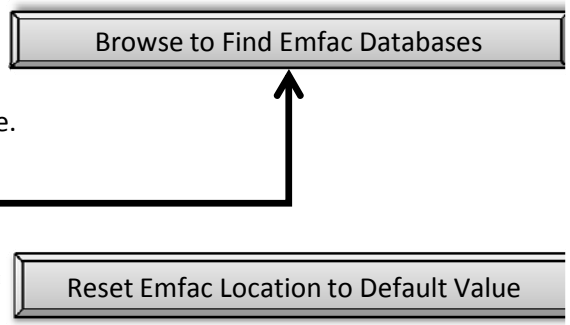
Change the Emfac Data Location

Emfac data files are stored, by default, in a directory Microsoft calls Common Application Data.

This Data location may have been changed in the Urbemis config file.

If the Emfac files cannot be found, use the Browse button to find the databases:

Or, try resetting the Emfac Database Location to its default value:



Current Project File Name

C:\Documents and Settings\leemanw\My Documents\SunCreek\Urbemis\SunCreek Specific Plan- NFA area and operational.ur

Project Data Last Refreshed On:

8/17/10 9:29 AM

Project Name:

SunCreek Specific Plan- PP

ns

Baseline Project File Name

Baseline Data Last Refreshed On:

Baseline Project Name:

Emfac Database Location

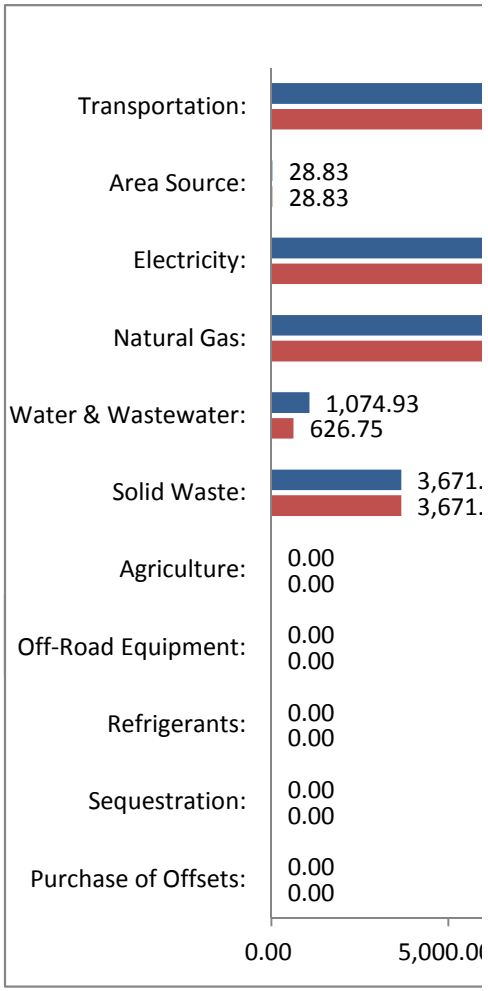
C:\Documents and Settings\leemanw\Application Data\Urbemis\Version9a\Data

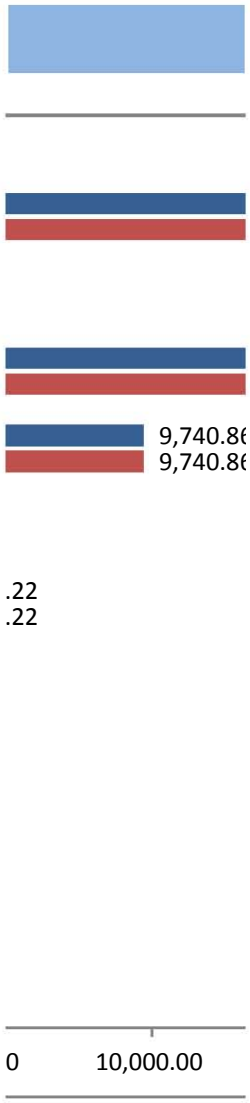
Summary Results

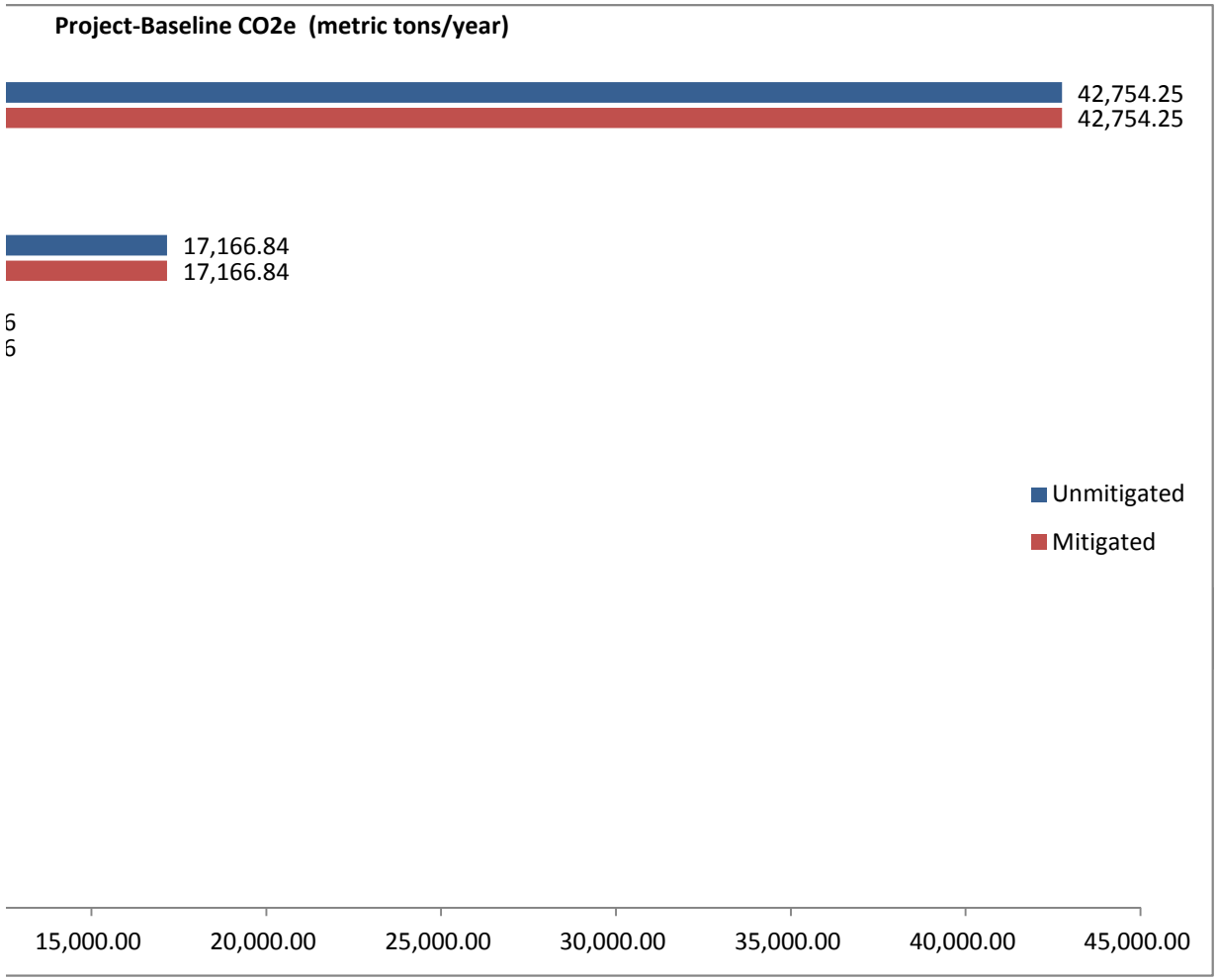
Project Name: SunCreek Specific Plan- PP
Project and Baseline Years: 2030 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	42,754.25	42,754.25
Area Source:	28.83	28.83
Electricity:	17,166.84	17,166.84
Natural Gas:	9,740.86	9,740.86
Water & Wastewater:	1,074.93	626.75
Solid Waste:	3,671.22	3,671.22
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	74,436.92	73,988.74

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline




9,740.86
9,740.86
.22
.22
0
10,000.00


Project-Baseline CO2e (metric tons/year)
42,754.25
42,754.25
17,166.84
17,166.84
Unmitigated
Mitigated
15,000.00
20,000.00
25,000.00
30,000.00
35,000.00
40,000.00
45,000.00

Transportation

Baseline is Currently: OFF

Target Year:	2030	2011	
Unmitigated Transportation	**Project**	**Baseline**	**Project-Baseline**
Operational Emissions from URBEMIS (CO2 tons/year)	62,334.47	0.00	
Metric Ton Adjustment (CO2 metric tons/year)	56,564.85	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):	43,767.82	0.00	
US EPA Adjustment (CO2e metric tons/year):	46,071.39	0.00	
Low Carbon Fuels Rule Adjustment (CO2e metric tons/year)	42,754.25	0.00	
Total (CO2e metric tons/year):			**42,754.25**

The BGM User's Manual describes in detail each step used to convert URBEMIS's transportation CO2 emissions to total CO2e.
These steps include converting from English to Metric units, adjusting for the Pavley Rule, converting CO2 to CO2e, and adjusting for the Low

Reference

U.S. EPA assumption that GHG emissions from other pollutants - CH4, N20, and hydrofluorcarbons (HFCs) from leaking air conditioners accou

Jump to the Following Transportation Related Tabs:
Transportation Detail for Operational Mitigation
Land Use Detail

	Don't Need to Adjust this amt	Unadjusted Amount Affected by Pavley	Adjusted	Adusted
	Not Affected by Pavley	LDA/ LDT1/ LDT2/ MDV	LDA	LDT1
Pavley Calculations - Project Unmitigated	8,902.64	47,662.21	16,545.22	5,254.30
Pavley Calculations - Baseline Unmitigated	0.00	0.00	0.00	0.00
Pavley Calculations - Project Mitigated	8,902.64	47,662.21	16,545.22	5,254.30
Pavley Calculations - Baseline Mitigated	0.00	0.00	0.00	0.00

Pavley Adjustment

Year	% LDA CO2 Emissions	% LDT1 CO2 Emissions	% LDT2 CO2 Emissions	% MDV CO2 Emissions
2009	41.59%	12.33%	19.61%	9.71%
2010	41.72%	12.39%	19.54%	9.61%
2011	41.83%	12.45%	19.50%	9.50%
2012	41.89%	12.50%	19.47%	9.40%
2013	41.94%	12.56%	19.46%	9.32%
2014	41.98%	12.62%	19.46%	9.27%
2015	42.00%	12.67%	19.47%	9.24%
2016	42.05%	12.76%	19.50%	9.23%
2017	42.02%	12.81%	19.51%	9.21%
2018	41.98%	12.84%	19.52%	9.21%
2019	41.95%	12.87%	19.53%	9.21%
2020	41.92%	12.89%	19.55%	9.22%
2025	41.92%	12.96%	19.67%	9.28%

2030	42.15%	13.03%	19.76%	9.32%
2035	42.21%	13.11%	19.80%	9.35%
2040	42.24%	13.14%	19.90%	9.44%

Low Carbon Fuels Standards

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Gre
Subarticle 7. Low Carbon Fuel Stand
Section 95482. Average Carbon Inte

2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Mitigated Transportation	Target Year:	2030	2011	
		Project	**Baseline**	**Project-Baseline**
Operational Vehicles from URBEMIS (CO2 tons/year):		62,334.47	0.00	
Metric Ton Adjustment (CO2 metric tons/year):		56,564.85	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):		43,767.82	0.00	
US EPA Adjustment (CO2e metric tons/year):		46,071.39	0.00	
Low Carbon Fuels Adjustment (CO2e metric tons/year):		42,754.25	0.00	
Total (CO2e metric tons/year):				**42,754.25**

' Carbon Fuels Rule.

ınt for 5 percent of emissions from vehicles, after accounting for global warming potentail of each GHG.

Adusted LDT2	Adusted MDV	Adjusted 4 totaled
8,871.29	4,194.37	34,865.17
0.00	0.00	0.00
8,871.29	4,194.37	34,865.17
0.00	0.00	0.00

% LDA/LDT1/LDT2/MDV	% everything else	% CO2 Reduction - LDA	% CO2 Reduction - LDT1	% CO2 Reduction - LDT2	% CO2 Reduction MDV
83.26%	16.74%	0.00%	0.00%	0.07%	0.08%
83.26%	16.74%	0.35%	0.25%	0.45%	0.48%
83.27%	16.73%	1.75%	1.34%	1.31%	1.29%
83.27%	16.73%	4.07%	3.27%	2.60%	2.44%
83.28%	16.72%	6.31%	5.26%	3.88%	3.61%
83.33%	16.67%	8.48%	7.26%	5.17%	4.83%
83.38%	16.62%	10.74%	9.38%	6.54%	6.17%
83.54%	16.46%	12.96%	11.56%	7.94%	7.54%
83.55%	16.45%	15.03%	13.58%	9.27%	8.88%
83.55%	16.45%	16.94%	15.43%	10.54%	10.16%
83.57%	16.43%	18.72%	17.13%	11.74%	11.40%
83.59%	16.41%	20.37%	18.69%	12.89%	12.59%
83.82%	16.18%	26.87%	24.86%	17.60%	17.42%

84.26%	15.74%	30.60%	28.71%	20.63%	20.47%
84.47%	15.53%	32.38%	31.17%	22.43%	22.29%
84.72%	15.28%	33.27%	32.61%	23.60%	23.53%

eenhouse Gas Reductions
ard
nsity Requirements for Gasoline and Diesel

12.00	13.00	14.00	15.00	16.00	
LDA					
0.0000	0.0000	0.0006	0.0007	0.0013	Step 1 - Figure out year
0.0020	0.0022	0.0036	0.0044	0.0122	Step 2- Emissions from HDVs, etc. do not change
0.0102	0.0117	0.0106	0.0117	0.0442	Step 3 - Adjust emissions from LDA's, etc. individually
0.0237	0.0286	0.0209	0.0221	0.0953	Step 4 - Add Step 2 and Step 3 emissions
0.0366	0.0460	0.0313	0.0328	0.1466	
0.0492	0.0634	0.0416	0.0438	0.1980	
0.0623	0.0819	0.0527	0.0560	0.2529	
0.0751	0.1008	0.0639	0.0684	0.3082	
0.0871	0.1184	0.0746	0.0806	0.3608	
0.0983	0.1345	0.0848	0.0923	0.4099	
0.1087	0.1492	0.0945	0.1035	0.4559	
0.1183	0.1628	0.1037	0.1143	0.4990	
0.1560	0.2164	0.1414	0.1581	0.6719	

0.1770	0.2497	0.1655	0.1856	0.7779
0.1871	0.2708	0.1799	0.2021	0.8400
0.1922	0.2832	0.1890	0.2131	0.8775

Area Source

Baseline is currently: OFF

Unmitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	3.730	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	16.216	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.027	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.028	0.000	
Total (CO2e metric tons/year):	28.830	0.000	
Total (CO2e metric tons/year):			**28.830**

The URBEMIS area source calculations include five separate categories: 1) natural gas fuel combustion, 2) hearth fuel combu
tab imports CO2 emissions calculated by URBEMIS for hearths and landscape maintenance equipment only. BGM then calcul
consumer products and architectural coatings categories within URBEMIS do not generate GHG emissions and, consequently
Instead, BGM calculates natural gas use and the resulting CO2 emissions in the Electricity and Natural Gas tab.

Mitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	3.730	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	16.216	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.027	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.028	0.000	
Total (CO2e metric tons/year):	28.830	0.000	
Total (CO2e metric tons/year):			**28.830**

stion, 3) landscape maintenance equipment, 4) consumer products, and 5) architectural coatings. This Area Source ates N2O and CH4 emissions for woodstoves and fireplaces and uses the resulting emissions to calculate CO2e. The , are not used by BGM. Also, URBEMIS' estimate of CO2 from natural gas fuel combustion is not used by BGM.

Electricity and Natural Gas

Baseline is currently: OFF

Unmitigated Electricity			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year CO2:	17,139.409	0.000	
CH4 metric tons/year CH4:	0.143	0.000	
N2O metric tons/year:	0.079	0.000	
CO2e metric tons/year:	17,166.841	0.000	
CO2e metric tons/year:			**17,166.84**

Unmitigated Natural Gas			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	9715.96	0.000	
CH4 metric tons/year:	0.92	0.000	
N2O metric tons/year:	0.02	0.000	
CO2e metric tons/year:	9740.86	0.000	
CO2e metric tons/year:			**9,740.86**

Project Climate Zone Location: ○ Zone 4 ◉ Zone 5

PROJECT Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	363.000	6,047.000	2,195.061	3,293.499
Multi Family Residential	4,520.000	3,685.000	16,656.200	41,009.960

PROJECT Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	106.50	586.33	975.54	356.11
Junior High School	0.00	0.00	0.00	0.00
High School	0.00	0.00	0.00	0.00
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	1,099.89	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00	0.00	0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	112.00	1,416.57	1,599.36	583.82
Hardware/Paint Store	0.00	0.00		0.00

Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00
Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	4.20	64.04	74.26	27.11
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

BASELINE Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	0.000	6,047.000	0.000	
Multi Family Residential	0.000	3,685.000	0.000	

BASELINE Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	0.00	0.00		0.00
Junior High School	0.00	0.00		0.00
High School	0.00	0.00		0.00
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	0.00	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00		0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	0.00	0.00		0.00
Hardware/Paint Store	0.00	0.00		0.00
Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00

Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	0.00	0.00		0.00
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

Greenhouse Gas Emission Factors

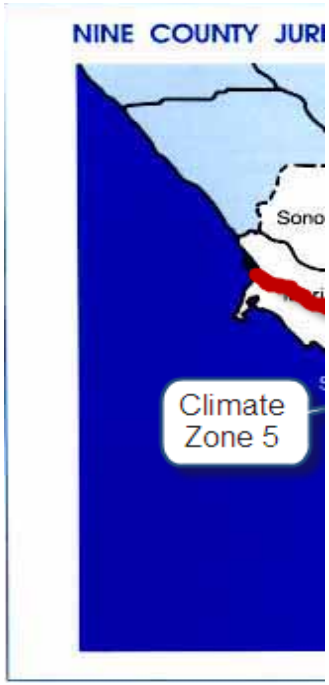
	CO2	CH4	N2O	
Electricity	804.54	0.0067	0.0037	
Units	lbs CO2/mwh	lbs CH4/mwh	lbs N20/MWH	Source: Climate Acti
Natural Gas	53.06	0.005	0.0001	
Units	CO2 (kg CO2/MMBtu)	CH4 (kg/MMBtu)	N2O(kg/MMBtu)	Source: Climate Acti

Summary	Climate Zone 4 Summary		Climate Zone 5 Summary	
	Electric (kwh/sf)	Natural Gas (MM Btu/sf)	Electric (kwh/sf)	Natural Gas (MM Btu/sf)
All Commercial	13.64	0.02949	13.19	0.03169
Small Office (<30,000 sf)	17.37	0.00975	14.49	0.02999
Large Office (>= 30,000 sf)	23.51	0.02639	15.25	0.02328
Restaurant	35.97	0.21255	31.41	0.17108

Retail	12.82	0.00301	12.65	0.00551
Food Store	44.34	0.02577	40.26	0.04135
Refrigerated Warehouse	10.12	0.00388	24.86	0.01869
Unrefrigerated Warehouse	4.26	0.00440	4.56	0.00169
School	6.65	0.02271	5.51	0.01958
College	9.75	0.02754	12.70	0.04185
Health	23.03	0.11871	18.40	0.11073
Lodging	9.33	0.04695	10.03	0.03915
Miscellaneous	9.81	0.02965	8.98	0.02724
All Offices	21.35	0.02052	15.14	0.02426
All Warehouses	5.82	0.00426	7.71	0.00433

Mitigated Electricity			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year CO2:	17,139.409	0.000	
CH4 metric tons/year CH4:	0.143	0.000	
N2O metric tons/year:	0.079	0.000	
CO2e metric tons/year:	17,166.841	0.000	
CO2e metric tons/year:			**17,166.84**

Mitigated Natural Gas			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	9715.959	0.000	
CH4 metric tons/year:	0.916	0.000	
N2O metric tons/year:	0.018	0.000	
CO2e metric tons/year:	9740.862	0.000	
CO2e metric tons/year:			**9,740.86**



***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

For detailed climate
http://capabilities.itr

Clear All User Overrides

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
1,202.247	0.0100	0.0055	49.600	18,004.800	13,431.000
14,970.124	0.1247	0.0688	22.500	101,700.000	167,240.000

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0030	0.0016	2,085.24	1,964.93	104.07	0.00981
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00	0.00	0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0049	0.0027	617.38	741.44	39.27	0.00370
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0002	0.0001	97.79	68.25	3.61	0.00034
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
0.000	0.0000	0.0000	49.600	0.000	
0.000	0.0000	0.0000	22.500	0.000	

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

zone map see:
ron.com/CeusWeb/FCZMap.aspx

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	Elec Use	Gas Use
711.355	0.067	0.001	3,293.50	13,431.00
8,857.650	0.835	0.017	41,009.96	167,240.00

Residential Energy Use from California Statewide Residentia
See also Executive Summary for Natural Gas Use by Building

N2O (metric tons/yr)	Elect Use	Gas Use
0.00000	0.00	0.00
0.00020	975.54	1,964.93
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00007	1,599.36	741.44
0.00000	0.00	0.00

User Provided Blank Land Use Data: Project Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00001	74.26	68.25	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
	46,952.62	183,445.62	Unmitigated
	46,952.62	183,445.62	Mitigated
	46,952.62	183,445.62	Mitigated %

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.000	0.000	0.000
0.000	0.000	0.000

N2O (metric tons/yr)
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
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0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

al Appliance Saturation Study, Tables 2-9, 2-13,2-15,2-4,2-5,2-23,2-24
g Age

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Water and Wastewater

Baseline is currently: OFF

Unmitigated Water and Wastewater			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	1073.2091	0.0000	
CH4 metric tons/year:	0.0089	0.0000	
N20 metric tons/year:	0.0049	0.0000	
CO2e metric tons/year:	1074.9268	0.0000	
CO2e metric tons/year:			**1,074.93**

Clear All User Overrides

	User Override of Model Estimates (af/yr)	Model Estimate (af/yr)	Total Gallons/year	Indoor Gallons/Year
Baseline Water Demand		0.00	0	0.00
Project Water Demand	1,933.51	1,127.35	367,404,068	224,116,481.44
Net Increase in Water Demand		1,127.35	367,404,068	224,116,481.44

Houshold Size	
Single Family	Multi-family
2.94	2.65

Land Use Type	**Square feet per e**
1	Warehouse
2	Public Assembly
3	Lodging
4	Food Sales
5	Retail and Service
6	Education
7	Public Order and
8	Food Service
9	Other
10	Health Care
11	Office

PROJECT	
% indoor water use	0.610

% outdoor water use	0.390
Total	1.00

Project Water Demand - Indoor	2079878.32	kwh/year
Project Water Demand - Outdoor	860128.25	kwh/year
Total	2940006.56	kwh/year

Greenhouse Gas Emission Factors	CO2	CH4	N2O
Electricity	804.54	0.0067	0.0037
Units	#/mwh	#/mwh	#/mwh

from California Cl

Table ES-1. Recommended revised water-energy proxies

	Indoor Uses		Outdoor Uses	
	Northern California kWh/MG	Southern California kWh/MG	Northern California kWh/MG	Southern California kWh/MG
Water Supply and Conveyance	2,117	9,727	2,117	9,727
Water Treatment	111	111	111	111
Water Distribution	1,272	1,272	1,272	1,272
Wastewater Treatment	1,911	1,911	0	0
Regional Total	5,411	13,022	3,500	11,111

from Navigant, 2006

Gallons Per Acre Foot:	325,900.00

Indoor vs. Outdoor Water Use				
	Indoor	Outdoor	Total	
2001	0.64	0.36	1.00	
2002	0.64	0.36	1.00	
2003	0.64	0.36	1.00	LU Type
2004	0.64	0.36	1.00	6
2005	0.64	0.36	1.00	6

2006	0.63	0.37	1.00	6
2007	0.63	0.37	1.00	6
2008	0.63	0.37	1.00	6
2009	0.63	0.37	1.00	6
2010	0.63	0.37	1.00	6
2011	0.63	0.37	1.00	9
2012	0.63	0.37	1.00	2
2013	0.63	0.37	1.00	5
2014	0.63	0.37	1.00	5
2015	0.63	0.37	1.00	8
2016	0.62	0.38	1.00	8
2017	0.62	0.38	1.00	8
2018	0.62	0.38	1.00	8
2019	0.62	0.38	1.00	3
2020	0.62	0.38	1.00	3
2021	0.62	0.38	1.00	5
2022	0.62	0.38	1.00	5
2023	0.62	0.38	1.00	5
2024	0.62	0.38	1.00	5
2025	0.62	0.38	1.00	5
2026	0.61	0.39	1.00	5
2027	0.61	0.39	1.00	5
2028	0.61	0.39	1.00	5
2029	0.61	0.39	1.00	4
2030	0.61	0.39	1.00	4
				4
				9
	Water Use			5
Year	Single Family (gallons a day/ capita)	Multi-family (gallons a day/ capita)	Non-Res (gallons a day/ employee)	11
2001	108.00	75.00	86.00	11
2002	107.79	74.72	85.97	11
2003	107.59	74.45	85.93	11
2004	107.38	74.17	85.90	5
2005	107.17	73.90	85.86	5
2006	106.97	73.62	85.83	10
2007	106.76	73.34	85.79	10
2008	106.55	73.07	85.76	1

2009	106.34	72.79	85.72	1
2010	106.14	72.52	85.69	1
2011	105.93	72.24	85.66	1
2012	105.72	71.97	85.62	1
2013	105.52	71.69	85.59	
2014	105.31	71.41	85.55	
2015	105.10	71.14	85.52	
2016	104.90	70.86	85.48	
2017	104.69	70.59	85.45	
2018	104.48	70.31	85.41	
2019	104.28	70.03	85.38	LU Type
2020	104.07	69.76	85.34	6
2021	103.86	69.48	85.31	6
2022	103.66	69.21	85.28	6
2023	103.45	68.93	85.24	6
2024	103.24	68.66	85.21	6

2025	103.03	68.38	85.17	6
2026	102.83	68.10	85.14	6
2027	102.62	67.83	85.10	9
2028	102.41	67.55	85.07	2
2029	102.21	67.28	85.03	5
2030	102.00	67.00	85.00	5
				8
				8
				8
				8
				3
				3
				5
				5
				5
				5
				5
				5
				5
				5
				4
				4
				4
				9
				5
				11
				11
				11
				11
				5
				5
				10
				10
				1
				1
				1
				1
				1

Source:

San Francisco PUC Wholesale Customer Water Demand Projections Technical Report,
Prepared by URS Corporation and Maddaeus Water Management, November 2004.
Tables 3-2 and 5-2

	Mitigated Water and Wastewater		
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	625.7455	0.0000	
CH4 metric tons/year:	0.0052	0.0000	
N20 metric tons/year:	0.0029	0.0000	
CO2e metric tons/year:	626.7471	0.0000	
CO2e metric tons/year:			**626.75**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

Outdoor Gallons/year	Mitigated Indoor Gallons/Year	Mitigated Outdoor Gallons/year	Total Mitigated kwh/year
0.00	0.00	0.00	
143,287,586.50	224,116,481.44	143,287,586.50	
143,287,586.50	224,116,481.44	143,287,586.50	
	1212694.28	501506.55	1,714,200.83

mployee	
	1,700.00
	1,300.00
	1,300.00
	1,000.00
	900.00
	766.00
Safety	750.00
	600.00
	550.00
	500.00
	400.00

Energy Information Administration Special Topics 1995 Building Activities Other, Square
http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/office/office_hov

BASELINE	
% indoor water use	0.000

% outdoor water use	0.000
Total	0.00

Baseline Demand - Indoor	0.00	kwh/year
Baseline Demand - Outdoor	0.00	kwh/year
Total	0.00	kwh/year

imate Action Registry, 2009

From URBEMIS: Project Data		
Land Use Residential	Units	Projected Water Use (gallons/yr)
Single Family Residential	363.00	39,732,600.60
Multi-family Residential	4,520.00	292,921,990.00
Land Use Nonresidential	Square Feet	Projected Water Use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	106.50	4,313,528.07

User Provided Blank Land Use Data: Pro
Land Use Name

Junior High School	0.00	0.00
High School	0.00	0.00
Junior College	0.00	0.00
University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00
City Park	1,099.89	26,249,297.88
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	112.00	3,860,888.89
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	4.20	325,762.50
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00

General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		367,404,067.94

From URBEMIS: Baseline Data		
Land Use Residential	Units	Projected Water use (gallons/yr)
Single Family Residential	0.00	0.00
Multi-family Residential	0.00	0.00
Land Use Nonresidential	Square Feet	Projected Water use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	0.00	0.00
Junior High School	0.00	0.00
High School	0.00	0.00
Junior College	0.00	0.00

User Provided Blank Land Use Data: Bas
Land Use Name

University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00
City Park	0.00	0.00
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	0.00	0.00
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	0.00	0.00
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00
General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		0.00

feet per employee.
vmanyempl.htm

›ject Data
Projected Water Use (gallons/yr)

seline Data
Projected Water Use (gallons/yr)

Solid Waste

Baseline is currently: OFF

	Unmitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	6.42	0.00	
Truck Haul CH4 (metric tons/year):	0.0000	0.0000	
Truck Haul CO2e (metric tons/year):	6.42	0.00	
Landfill Offgasing (CO2e metric tons/year):	3,664.80	0.00	
Total Solid Waste (CO2e metric tons/year):	3,671.22	0.00	
Total Solid Waste (CO2e metric tons/year):			**3,671.22**

Project Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Base

Clear All User Overrides

Project	Defaults	User Override
Average Round Trip Truck Haul Distance (miles):	40.00	10.00
Solid Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	381.75	
Miles per Year:	3,817.50	

Avg Round Trip
Solid

PROJECT Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	363.00	2.23	810.21	392.04
Multi-Family Residential	4,520.00	1.17	5,288.40	4,881.60

PROJECT Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	106.50	0.0013	138.45	
Junior High School	0.00	0.0013	0.00	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	1,099.89	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	112.00	0.0024	268.80	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	

Government Office Building	4.20	0.0108	45.36	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	
			6,551.22	

BASELINE Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	0.00	2.23	0.00	
Multi-Family Residential	0.00	1.17	0.00	
BASELINE Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	0.00	0.0013	0.00	
Junior High School	0.00	0.0013	0.00	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	0.00	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	

Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	0.00	0.0024	0.00	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	0.00	0.0108	0.00	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	

WARM Emission Factors			

	Landfilling, No Recovery	Landfilling w/Flaring	Landfilling w/Energy Recovery
Mixed Solid Waste	3.10	0.64	0.30
Emissions (from EMFAC2007, 35 mph for Heavy-Heavy Duty Trucks			
Year	CO2 (grams/mile)	CH4 (grams/mile)	
2005	1,723.50	0.06	
2006	1,733.00	0.06	
2007	1,740.80	0.06	
2008	1,748.40	0.05	
2009	1,755.80	0.05	
2010	1,763.00	0.05	
2011	1,769.30	0.04	
2012	1,775.00	0.04	
2013	1,780.40	0.04	
2014	1,785.10	0.03	
2015	1,789.20	0.03	
2016	1,792.90	0.03	
2017	1,796.20	0.03	
2018	1,799.00	0.02	
2019	1,801.60	0.02	
2020	1,803.60	0.02	
2025	1,809.70	0.02	
2030	1,812.10	0.01	
2035	1,813.40	0.01	
2040	1,813.80	0.01	

Low Carbon Fuels Standards			
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels	
2010	0.00	0.00	Source:
2011	0.25	0.18	Final Regulation Order
2012	0.50	0.36	Subchapter 10. Climate Change
2013	1.00	0.72	Article 4. Regulations to Achieve Greenhouse G

2014	1.50	1.08	Subarticle 7. Low Carbon Fuel Standard
2015	2.50	1.80	Section 95482. Average Carbon Intensity Requ
2016	3.50	2.52	
2017	5.00	3.60	
2018	6.50	4.68	
2019	8.00	5.76	
2020	10.00	7.20	
2021	10.00	7.20	
2022	10.00	7.20	
2023	10.00	7.20	
2024	10.00	7.20	
2025	10.00	7.20	
2026	10.00	7.20	
2027	10.00	7.20	
2028	10.00	7.20	
2029	10.00	7.20	
2030	10.00	7.20	
2031	10.00	7.20	
2032	10.00	7.20	
2033	10.00	7.20	
2034	10.00	7.20	
2035	10.00	7.20	
2036	10.00	7.20	
2037	10.00	7.20	
2038	10.00	7.20	
2039	10.00	7.20	
2040	10.00	7.20	

	Mitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	6.42	0.00	
Truck Haul CH4 (metric tons/year):	0.0000	0.0000	
Truck Haul CO2e (metric tons/year):	6.42	0.00	
Landfill Offgasing (CO2e metric tons/year):	3,664.80	0.00	
Total Solid Waste (CO2e metric tons/year):	3,671.22	0.00	
Total Solid Waste (CO2e metric tons/year):			**3,671.22**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

line Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Baseline	Defaults	User Override
Truck Haul Distance (miles):	40.00	
Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	0.00	
Miles per Year:	0.00	

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
250.91	392.04
3,124.22	4,881.60

CO2 (metric tons/yr)	
0.00	0.00
88.61	138.45
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
172.03	268.80
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Project Data

Land Use Name	Solid Waste Generation/Year (tons)	CO2e (metric tons/year)
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

29.03	45.36
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
3,664.80	5,726.25

		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
0.00	0.00
0.00	0.00

CO2 (metric tons/yr)	
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Solid Waste Generation/Year (tons)	CO2e (metric tons/year)
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

Gas Reductions

irements for Gasoline and Diesel

Agriculture

Baseline is currently: OFF

Agriculture			
	Project	**Baseline**	**Project - Baseline**
CO2 metric tons/year:	0.000	0.00	
CH4 metric tons/year:	0.000	0.00	
N2O metric tons/year:	0.000	0.00	
CO2e metric tons/year:	0.00	0.00	
CO2e metric tons/year:			**0.00**

Clear All User Inputs

PROJECT Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

PROJECT Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year

Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.00	0.00	0.00

PROJECT Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.0000	0.0000	0.00
Diesel Fuel		0.00	0.0000	0.0000	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.0000	0.0000	0.00

PROJECT Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

PROJECT Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Note: GHG emissions associated with water use assumed to be accounted for in the fuel and electricity consumption.

Animal Type	Enteric Fermentation Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons N2O/head/yr)
Beef Cattle	0.085556	0.002158	0.000000
Beef Replacement Heifers	0.066208	0.001914	0.000000
Steers	0.033349	0.001470	0.000000
Bulls	0.053000	0.002793	0.000000
Milk Cows	0.116520	0.164125	0.000738
Dry Cows	0.116520	0.165125	0.000738
Heifers, 15-24 months	0.067047	0.002210	0.001620
Heifers, 7-14 months	0.042376	0.002210	0.001620
Heifers, 4-6 months	0.042376	0.002210	0.001620
Calves	0.042376	0.002210	0.001620

Chickens (fryers)	0.000000	0.000018	0.000002
Goats, Hogs, Pigs	0.001500	0.028228	0.000141
Sheeps and Lambs	0.008000	0.000781	0.000002
Turkeys	0.000000	0.000086	0.000010

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Table C.3, CCAR	Table c.6, CCAR	Table C.6, CCAR
CO2	CH4	N2O
kg/gallon	grams/gallon	grams/gallon
8.81	1.26	0.22
10.15	1.44	0.26
5.74	0.09	0.41

Table C.7, CCAR	Table C.9, CCAR	Table C.9, CCAR
kg/gallon	kg/gallon	kg/gallon
8.8100	0.0014	0.0001
10.1500	0.0015	0.0001
5.7400	0.0010	0.0001

Table E.1, CCAR CAMX (#/MWh)	Table E.2, CCAR (#/MWh)	Table E.2, CCAR(#,MWh)
878.7100	0.0067	0.0037

0.01425	metric tons N2O per ton organic and synthetic fertilzers applied

BASELINE Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

BASELINE Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year

Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.00	0.00	0.00

BASELINE Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.00	0.00	0.00
		0.00	0.0000	0.0000	0.00

BASELINE Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

BASELINE Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Off-Road Equipment

Baseline is currently: OFF

	Project					Off-Road Equipment
	Gasoline	Diesel Fuel	Propane	Total		
CO2 metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2 metric tons/year:
CH4 metric tons/year:	0.0000	0.0000	0.0000	0.00		CH4 metric tons/year:
N2O metric tons/year:	0.0000	0.0000	0.0000	0.00		N2O metric tons/year:
CO2e metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2e metric tons/year:
CO2e metric tons/year:						

Off-Road Equipment (typically used in commercial and industrial activities, e.g., forklifts, compressors, etc.)
(This does not include landscape maintenance equipment, which is accounted for in the area source calculations.)

PROJECT Fuel Use	Total Gallons Used per Year
Gasoline	
Diesel Fuel	
Propane	

Clear All User Inputs

BASELINE Fuel Use
Gasoline
Diesel Fuel
Propane

Table C.3, CCAR CO2 kg/gallon	Table c.6, CCAR CH4 grams/gallon	Table C.6, CCAR N2O grams/gallon
8.81	0.50	0.22

10.15	0.58	0.26
5.74	0.09	0.41

Low Carbon Fuel Standard

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

Baseline				Project - Baseline
Gasoline	Diesel Fuel	Propane	Total	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
				0.00

Total Gallons Used per Year

Refrigerants

Baseline is currently: OFF

	Unmitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

PROJECT Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)	Default GWP (weighted average)	User Override of GWP
Centralized		0.00		3,219.92	
Cold Storage		0.00		2,366.92	
Process Cooling		0.00		1,204.20	
Refrigerant Condensing Units		0.00		2,265.28	
PROJECT AC Systems					
Centrifugal Chiller (large)		0.00		1,349.34	
Centrifugal Chiller (medium)		0.00		1,349.34	
Packaged Chiller (medium)		0.00		1,349.34	
Unitary AC (small)		0.00		1,685.29	

* If user knows type of refrigerant proposed, then the default GWP value should be used to override the default value

Average Leak Rates (Annual	Default
Refrigeration Systems	Leak Rate (%)

Refigerant Losses: Based Primarily on Appendix B: California Facilities and

	Centralized	10.00
	Cold Storage	10.00
	Process Cooling	7.00
	Refrigerant Condensing Units	5.00
AC Systems		
	Centrifugal Chiller (large)	2.00
	Centrifugal Chiller (medium)	1.00
	Packaged Chiller (medium)	3.50
	Unitary AC (small)	5.00

Refrigerant Distribution						
Centralized Systems		GWP	2,010.00	2,011.00	2,012.00	2,013.00
	HCFC-22	1,500	42.20			
	R-404A	3,260	39.70			
	R-507	3,300	18.10			
	Weighted GWP		2,524.52	2,594.06	2,663.60	2,733.14
Cold Storage						
	CFC-12	8,100	2.00			
	HCFC-22	1,500	56.60			
	R-404A	3,260	26.20			
	R-502	4,500	6.60			
	R-507	3,300	8.60			
	Weighted GWP		2,445.92	2,438.02	2,430.12	2,422.22
Process Cooling						
	CFC-11	3,800	1.00			
	CFC-12	8,100	15.60			
	HCFC-22	1,500	22.00			
	HCFC-123	90	23.30			
	HFC-134A	1,300	33.30			
	R-401A	970	0.40			
	R-404a	3,260	2.70			
	R-410A	1,725	0.90			
	R-507	3,300	0.90			
	Weighted GWP		2,222.60	2,120.76	2,018.92	1,917.08

Refrigerated Condensing Units						
	CFC-12	8,100	2.20			
	HCFC-22	1,500	30.40			
	HFC-134a	1,300	40.40			
	R-404a	3,260	19.00			
	R-507	3,300	8.00			
	Weighted GWP		2,042.80	2,065.05	2,087.30	2,109.54
Chillers						
	CFC-11	3,800	2.60			
	CFC-12	8,100	0.90			
	HCFC-22	1,500	73.80			
	HCFC-123	90	6.80			
	CFC-114	9,300	0.10			
	HFC-134A	1,300	14.10			
	HFC-236fa	6,300	0.40			
	R-407a	1,526	1.00			
	R-410a	1,725	0.10			
	R-500	6,010	0.20			
	Weighted GWP		1,531.63	1,513.40	1,495.17	1,476.94
Unitary AC						
	HCFC-22	1,500	78.40			
	HFC-134a	1,300	0.10			
	R-407a	1,526	0.30			
	R-410a	1,725	21.20			
	Weighted GWP		1,547.58	1,561.35	1,575.12	1,588.89

	Mitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

CO2e (metric tons/year)	**BASELINE** Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)
0.00	Centralized		0.00	
0.00	Cold Storage		0.00	
0.00	Process Cooling		0.00	
0.00	Refrigerant Condensing Units		0.00	
	BASELINE AC Systems			
0.00	Centrifugal Chiller (large)		0.00	
0.00	Centrifugal Chiller (medium)		0.00	
0.00	Packaged Chiller (medium)		0.00	
0.00	Unitary AC (small)		0.00	

* If user knows type of refrigerant proposed, then the default GWP value should be used to ov

Clear All User Inputs and Overrides

2,014.00	2,015.00	2,016.00	2,017.00	2,018.00	2,019.00	2,020.00
						3.00
						65.20
						31.80
2,802.68	2,872.22	2,941.76	3,011.30	3,080.84	3,150.38	3,219.92
						0.00
						28.10
						54.20
						0.00
						17.70
2,414.32	2,406.42	2,398.52	2,390.62	2,382.72	2,374.82	2,366.92
						0.00
						0.00
						11.00
						29.40
						44.50
						0.30
						8.80
						3.40
						2.60
1,815.24	1,713.40	1,611.56	1,509.72	1,407.88	1,306.04	1,204.20

						0.00
						7.30
						44.50
						33.30
						14.90
2,131.79	2,154.04	2,176.29	2,198.54	2,220.78	2,243.03	2,265.28
						0.00
						0.00
						32.30
						8.20
						0.00
						32.30
						0.10
						18.20
						8.90
						0.00
1,458.71	1,440.48	1,422.25	1,404.02	1,385.79	1,367.57	1,349.34
						15.00
						0.70
						1.50
						82.80
1,602.66	1,616.43	1,630.21	1,643.98	1,657.75	1,671.52	1,685.29

Default GWP (weighted average)	User Override of GWP	CO2e (metric tons/year)
2,594.06		0.00
2,438.02		0.00
2,120.76		0.00
2,065.05		0.00

1,513.40		0.00
1,513.40		0.00
1,513.40		0.00
1,561.35		0.00

erride the default value

Mitigation

Mitigation Category

	Check=On	Mitigation Options	MMBtu/year Reduced	
Electricity & Natural Gas	☐	Solar Water Heater	5000	
	☐	Tankless Water Heater	5000	
			kwh/year reduced	MMBtu/year Increased
	☐	Cool Roofs/Green Roofs	5000	2
			% Increase In Energy Efficiency	
	☐	Increase Energy Efficiency Beyond Title 24	10	
			kwh/year generated	
	☐	Onsite Renewable Energy Systems - Solar	5000	
	☐	Onsite Renewable Energy Systems - Wind	5000	
	☐	Onsite Renewable Energy Systems - Other	5000	

		% Reduction Outdoor Use

Water and Wastewater	☐	Drought Tolerant Landscaping	10
			% Reduction Indoor Use
	☐	Low Flush Toilets	2

Solid Waste			Solid Waste Reduction %
	☐	Reduce Solid Waste by the Following Percentage	10

Refrigerants			% Reduction
	☐	Use Ammonia of CFCs or HCFCs	50

Offsets / Credits			Metric Tons CO2e/Year
	☐	Purchase Emission Offsets / Credits	5000

Calculations for Mitigation Selections

	0
	0
	0
Change in Natural Gas Use (MMBtu/year)	0
	0
	0
	0
	0
Change in Electricity Use (kwh/year)	0
Percentage Reduction in Elec and Nat Gas Use	0
% Reduction Outdoor H2O Use	0
% Reduction Indoor Water Use	0
Solid Waste Reduction %	0
% Reduction in CFC/HCFC Use	0

Baseline is currently: OFF

	Unmitigated Project-Baseline Emissions CO2e/year	Mitigated Project-Baseline Emissions CO2e/year
Transportation	42,754.25	42,754.25
Area Sources	28.83	28.83
Electricity	17,166.84	17,166.84
Natural Gas	9,740.86	9,740.86
Water and Wastewater	1,074.93	626.75
Solid Waste	3,671.22	3,671.22
Ag	0.00	0.00
Off-Road Equipment	0.00	0.00
Refrigerants	0.00	0.00
Sequestration	N/A	0.00
Emission Credits	N/A	0.00
Totals	74,436.92	73,988.74

Carbon Sequestration

Project Year:	2030
Emissions (CO2e metric tons/year):	0.00

Gas	Type	Unit of Measure	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Carbon dioxide	Total Storage	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon dioxide	Annual Increase	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Number of Trees Planted					
	Hardwoods			Conifers		
Year	Fast	Medium	Slow	Fast	Medium	Slow
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

Clear All User Inputs

Sequestration in Data Year 1 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 2 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00

Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 3 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 4 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00

Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 5 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 6 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 7 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00

Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 8 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00

Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 9 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00

Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 10 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00

Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00

Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 11 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00

Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 12 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00

Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 13 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00

Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00

Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 14 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00

Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 15 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.

	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00

Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
Fast-growth hardwoods	H	F	14	0	0.539	0.0	27.5	0.0	0.00
Med-growth hardwoods	H	M	14	0	0.527	0.0	15.8	0.0	0.00
Slow-growth hardwoods	H	S	14	0	0.512	0.0	7.5	0.0	0.00
Fast-growth conifers	C	F	14	0	0.539	0.0	19.6	0.0	0.00
Med-growth conifers	C	M	14	0	0.527	0.0	10.8	0.0	0.00
Slow-growth conifers	C	S	14	0	0.512	0.0	4.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Transportation

Operational Mitigation Residential

Transportation Detail for Operational Mitigation

Operational NonResidential Mitigation

Operational Annual Miscellaneous Detail

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Transportation

Land Use Detail

Land Use Description	Units	UnitType	Acreage	Trip Rate Unmitigated	Total Trips Unmitigated
Single family housing	363	dwelling units	60.5	9.57	3473.91
Apartments low rise	2405	dwelling units	300.6	9.57	23015.85
Apartments high rise	465	dwelling units	21.3	6.65	3092.25
Condo/townhouse general	1650	dwelling units	103.1	5.81	9586.5
Elementary school	1500	students		1.29	1935
City park	50.5	acres		1.59	80.3
Strip mall	112	1000 sq ft		65.2	7302.4
Goverment office building	4.2	1000 sq ft		52.5	220.5

Total VMT Unmitigated	Trip Rate Mitigated	Total Trips Mitigated	Total VMT Mitigated	
26003.13	0	0	0	
172279.67	0	0	0	
23146.3	0	0	0	
71757.47	0	0	0	
10278.72	0	0	0	
457.96	0	0	0	
29681.01	0	0	0	
993.54	0	0	0	

Help

Bay Area Air Quality Management District Greenhouse Gas Model (BGM) Version: 1.1.9 Beta

Step 1: Enable Macros

Macros must be enabled for this model to operate correctly. The method for enabling macros for this spreadsheet differs depending on the security settings in Excel.

Step 2: Open an Urbemis Project File, or Refresh Urbemis Data

BGM depends on the data and results from an URBEMIS project file. Two URBEMIS files can be specified : a project file and (optionally) a baseline file. To open a file, or to refresh the data in this spreadsheet after an URBEMIS file has been modified, go to the Settings tab by clicking on the Open an URBEMIS Project File link to the right . Select the URBEMIS file(s) that you want to import and hit the refresh data button. Please make sure that the Emfac Database Location is correct before clicking either of the Refresh buttons.

Step 3: Data Entry Options

The bright yellow areas on each tab represent data entry locations, if applicable to your project. In some cases, there are optional data inputs (shown in peach). Some tabs, such as transportation and area sources, do not require any data input, as results are imported directly from URBEMIS. Certain other tabs - electricty & natural gas, water & wastewater, and solid waste - require some minor amount of user input, although most of the information used to estimate emissions is imported from URBEMIS. And for certain tabs, - ag, off-road, refrigerants, and carbon sequestration - the user must enter project specific information to obtain emission estimates.

Step 4: View Results

The Results Tab presents a graphical and tabular view of the results of the Greenhouse Gas Calculator. Both a summary and detailed report are included on the Results tab. The user also has the option of selected project specific mitigation on the Mitigation tab and on the Carbon Sequestration tab.

LINKS

Assistance provided by:

Rimpo and Associates, Inc.

Mitigation

Carbon Sequestration

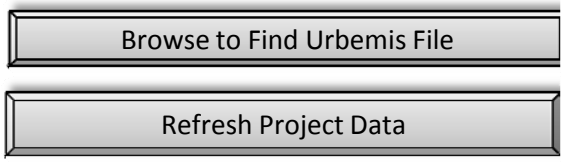
Enter data in yellow cells with values applicable to your project

Enter data in peach cells if you have information specific to your project; these values will be used in place of the default values

Settings

Open an Urbemis Project File

Step 1: Click the Browse button to find the file:
Step 2: Click the Refresh Project button to read the data, make an Urbemis run and import the results:

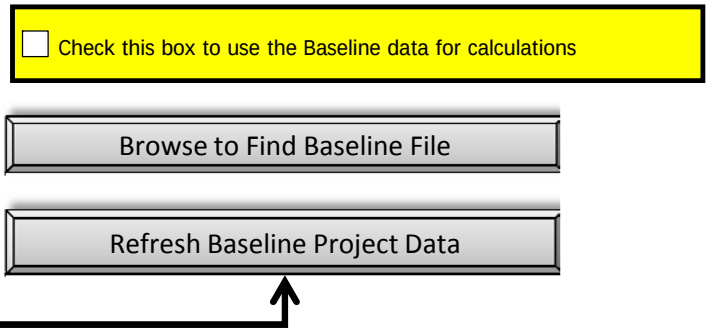


The Urbemis Project File Has Been Changed

Step 1: Make sure the directory path and file name are correct in the Project File Name field.
Step 2: Click the Refresh button to update the data:

Establish a Baseline Run for Comparison

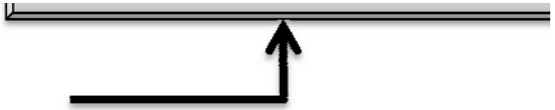
Step 1: Click the Browse button to find the Urbemis Project File representing the baseline:
Step 2: Click the Refresh Baseline button to read the baseline project data, make an Urbemis run and import the results:



Clear All Project and Baseline Data

Step 1: Save the current spreadsheet, as this will cause all of the current data to be lost

Step 2: Click the Clear Data button to reset the spreadsheet



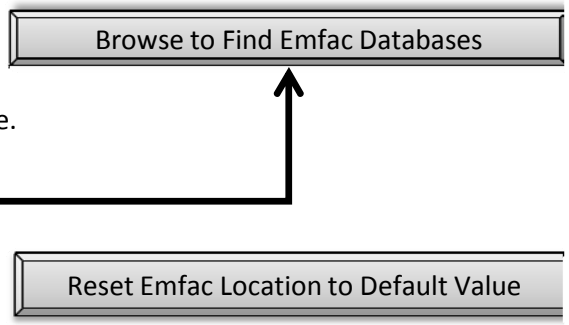
Change the Emfac Data Location

Emfac data files are stored, by default, in a directory Microsoft calls Common Application Data.

This Data location may have been changed in the Urbemis config file.

If the Emfac files cannot be found, use the Browse button to find the databases:

Or, try resetting the Emfac Database Location to its default value:



Current Project File Name

C:\Documents and Settings\leemanw\My Documents\SunCreek\Urbemis\SunCreek Specific Plan- PP area and operational.urb

Project Data Last Refreshed On:

8/17/10 7:13 AM

Project Name:

SunCreek Specific Plan- PP

ns

Baseline Project File Name

Baseline Data Last Refreshed On:

Baseline Project Name:

Emfac Database Location

C:\Documents and Settings\leemanw\Application Data\Urbemis\Version9a\Data

Summary Results

Project Name: SunCreek Specific Plan- PP

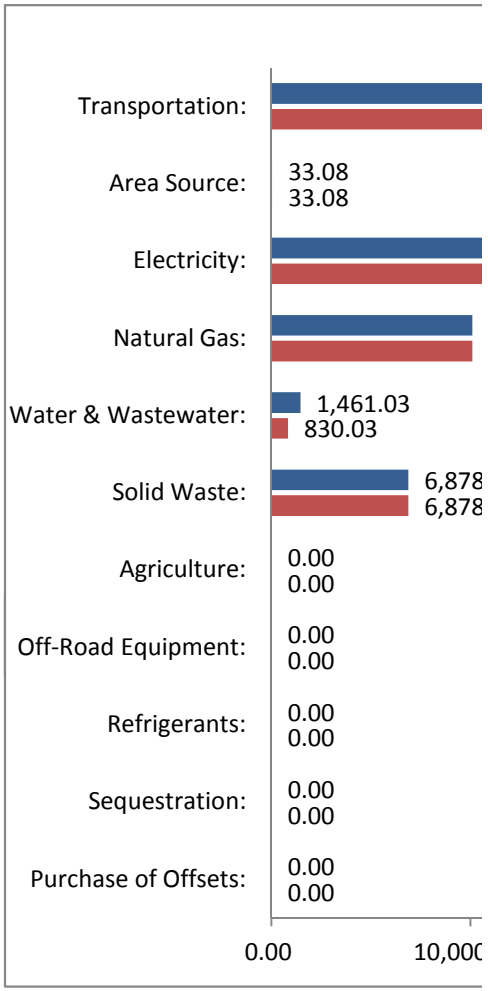
Project and Baseline Years: 2030 N/A

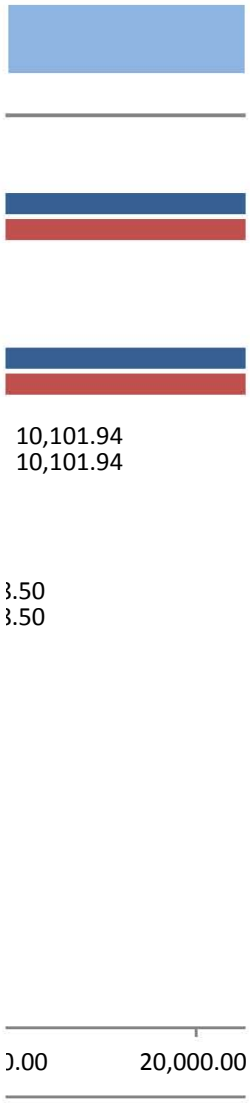
Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	71,253.28	71,253.28
Area Source:	33.08	33.08
Electricity:	23,883.04	23,883.04
Natural Gas:	10,101.94	10,101.94
Water & Wastewater:	1,461.03	830.03
Solid Waste:	6,878.50	6,878.50
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	113,610.87	112,979.87

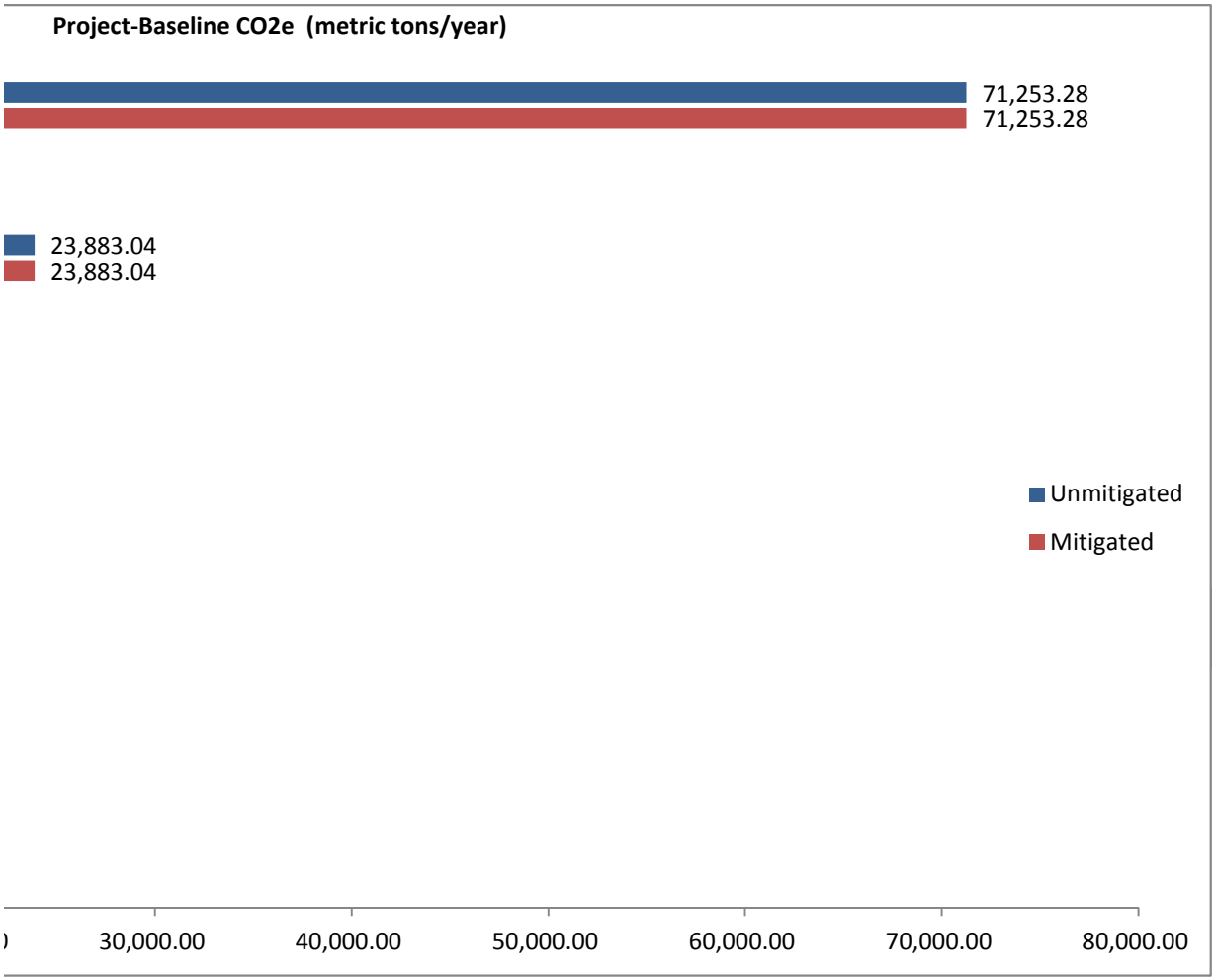
Baseline is currently: **OFF**

Baseline Project Name:

Go to Settings Tab to Turn On Baseline




10,101.94
10,101.94
3.50
3.50
0.00
20,000.00


Project-Baseline CO2e (metric tons/year)
71,253.28
71,253.28
23,883.04
23,883.04
Unmitigated
Mitigated
30,000.00
40,000.00
50,000.00
60,000.00
70,000.00
80,000.00

Transportation

Baseline is Currently: OFF

Target Year:	2030	2011	
Unmitigated Transportation	**Project**	**Baseline**	**Project-Baseline**
Operational Emissions from URBEMIS (CO2 tons/year)	103,885.25	0.00	
Metric Ton Adjustment (CO2 metric tons/year)	94,269.74	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):	72,942.48	0.00	
US EPA Adjustment (CO2e metric tons/year):	76,781.55	0.00	
Low Carbon Fuels Rule Adjustment (CO2e metric tons/year)	71,253.28	0.00	
Total (CO2e metric tons/year):			**71,253.28**

The BGM User's Manual describes in detail each step used to convert URBEMIS's transportation CO2 emissions to total CO2e.
These steps include converting from English to Metric units, adjusting for the Pavley Rule, converting CO2 to CO2e, and adjusting for the Low

Reference

U.S. EPA assumption that GHG emissions from other pollutants - CH4, N20, and hydrofluorcarbons (HFCs) from leaking air conditioners accou

Jump to the Following Transportation Related Tabs:
Transportation Detail for Operational Mitigation
Land Use Detail

	Don't Need to Adjust this amt	Unadjusted Amount Affected by Pavley	Adjusted	Adusted
	Not Affected by Pavley	LDA/ LDT1/ LDT2/ MDV	LDA	LDT1
Pavley Calculations - Project Unmitigated	14,836.95	79,432.79	27,573.89	8,756.69
Pavley Calculations - Baseline Unmitigated	0.00	0.00	0.00	0.00
Pavley Calculations - Project Mitigated	14,836.95	79,432.79	27,573.89	8,756.69
Pavley Calculations - Baseline Mitigated	0.00	0.00	0.00	0.00

Pavley Adjustment

Year	% LDA CO2 Emissions	% LDT1 CO2 Emissions	% LDT2 CO2 Emissions	% MDV CO2 Emissions
2009	41.59%	12.33%	19.61%	9.71%
2010	41.72%	12.39%	19.54%	9.61%
2011	41.83%	12.45%	19.50%	9.50%
2012	41.89%	12.50%	19.47%	9.40%
2013	41.94%	12.56%	19.46%	9.32%
2014	41.98%	12.62%	19.46%	9.27%
2015	42.00%	12.67%	19.47%	9.24%
2016	42.05%	12.76%	19.50%	9.23%
2017	42.02%	12.81%	19.51%	9.21%
2018	41.98%	12.84%	19.52%	9.21%
2019	41.95%	12.87%	19.53%	9.21%
2020	41.92%	12.89%	19.55%	9.22%
2025	41.92%	12.96%	19.67%	9.28%

2030	42.15%	13.03%	19.76%	9.32%
2035	42.21%	13.11%	19.80%	9.35%
2040	42.24%	13.14%	19.90%	9.44%

Low Carbon Fuels Standards

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Gre
Subarticle 7. Low Carbon Fuel Stand
Section 95482. Average Carbon Inte

2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Mitigated Transportation	Target Year:	2030	2011	
		Project	**Baseline**	**Project-Baseline**
Operational Vehicles from URBEMIS (CO2 tons/year):		103,885.25	0.00	
Metric Ton Adjustment (CO2 metric tons/year):		94,269.74	0.00	
Pavley Regulation Adjustment (CO2 metric tons/year):		72,942.48	0.00	
US EPA Adjustment (CO2e metric tons/year):		76,781.55	0.00	
Low Carbon Fuels Adjustment (CO2e metric tons/year):		71,253.28	0.00	
Total (CO2e metric tons/year):				**71,253.28**

' Carbon Fuels Rule.

ınt for 5 percent of emissions from vehicles, after accounting for global warming potentail of each GHG.

Adusted	Adusted	Adjusted
LDT2	MDV	4 totaled
14,784.70	6,990.24	58,105.53
0.00	0.00	0.00
14,784.70	6,990.24	58,105.53
0.00	0.00	0.00

% LDA/LDT1/LDT2/MDV	% everything else	% CO2 Reduction - LDA	% CO2 Reduction - LDT1	% CO2 Reduction - LDT2	% CO2 Reduction MDV
83.26%	16.74%	0.00%	0.00%	0.07%	0.08%
83.26%	16.74%	0.35%	0.25%	0.45%	0.48%
83.27%	16.73%	1.75%	1.34%	1.31%	1.29%
83.27%	16.73%	4.07%	3.27%	2.60%	2.44%
83.28%	16.72%	6.31%	5.26%	3.88%	3.61%
83.33%	16.67%	8.48%	7.26%	5.17%	4.83%
83.38%	16.62%	10.74%	9.38%	6.54%	6.17%
83.54%	16.46%	12.96%	11.56%	7.94%	7.54%
83.55%	16.45%	15.03%	13.58%	9.27%	8.88%
83.55%	16.45%	16.94%	15.43%	10.54%	10.16%
83.57%	16.43%	18.72%	17.13%	11.74%	11.40%
83.59%	16.41%	20.37%	18.69%	12.89%	12.59%
83.82%	16.18%	26.87%	24.86%	17.60%	17.42%

84.26%	15.74%	30.60%	28.71%	20.63%	20.47%
84.47%	15.53%	32.38%	31.17%	22.43%	22.29%
84.72%	15.28%	33.27%	32.61%	23.60%	23.53%

eenhouse Gas Reductions
ard
nsity Requirements for Gasoline and Diesel

12.00	13.00	14.00	15.00	16.00	
LDA					
0.0000	0.0000	0.0006	0.0007	0.0013	Step 1 - Figure out year
0.0020	0.0022	0.0036	0.0044	0.0122	Step 2- Emissions from HDVs, etc. do not change
0.0102	0.0117	0.0106	0.0117	0.0442	Step 3 - Adjust emissions from LDA's, etc. individually
0.0237	0.0286	0.0209	0.0221	0.0953	Step 4 - Add Step 2 and Step 3 emissions
0.0366	0.0460	0.0313	0.0328	0.1466	
0.0492	0.0634	0.0416	0.0438	0.1980	
0.0623	0.0819	0.0527	0.0560	0.2529	
0.0751	0.1008	0.0639	0.0684	0.3082	
0.0871	0.1184	0.0746	0.0806	0.3608	
0.0983	0.1345	0.0848	0.0923	0.4099	
0.1087	0.1492	0.0945	0.1035	0.4559	
0.1183	0.1628	0.1037	0.1143	0.4990	
0.1560	0.2164	0.1414	0.1581	0.6719	

0.1770	0.2497	0.1655	0.1856	0.7779
0.1871	0.2708	0.1799	0.2021	0.8400
0.1922	0.2832	0.1890	0.2131	0.8775

Area Source

Baseline is currently: OFF

Unmitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	7.559	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	16.488	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.027	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.028	0.000	
Total (CO2e metric tons/year):	33.076	0.000	
Total (CO2e metric tons/year):			**33.076**

The URBEMIS area source calculations include five separate categories: 1) natural gas fuel combustion, 2) hearth fuel combu
tab imports CO2 emissions calculated by URBEMIS for hearths and landscape maintenance equipment only. BGM then calcul
consumer products and architectural coatings categories within URBEMIS do not generate GHG emissions and, consequently
Instead, BGM calculates natural gas use and the resulting CO2 emissions in the Electricity and Natural Gas tab.

Mitigated Area Source	Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):	7.559	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):	16.488	0.000	
Wood Burning Fireplaces (N2O metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):	0.027	0.000	
Wood Burning Stoves (CH4 metric tons/year):	0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):	0.028	0.000	
Total (CO2e metric tons/year):	33.076	0.000	
Total (CO2e metric tons/year):			**33.076**

stion, 3) landscape maintenance equipment, 4) consumer products, and 5) architectural coatings. This Area Source ates N2O and CH4 emissions for woodstoves and fireplaces and uses the resulting emissions to calculate CO2e. The , are not used by BGM. Also, URBEMIS' estimate of CO2 from natural gas fuel combustion is not used by BGM.

Electricity and Natural Gas

Baseline is currently: OFF

Unmitigated Electricity			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year CO2:	23,844.879	0.000	
CH4 metric tons/year CH4:	0.199	0.000	
N2O metric tons/year:	0.110	0.000	
CO2e metric tons/year:	23,883.044	0.000	
CO2e metric tons/year:			**23,883.04**

Unmitigated Natural Gas			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	10076.12	0.000	
CH4 metric tons/year:	0.95	0.000	
N2O metric tons/year:	0.02	0.000	
CO2e metric tons/year:	10101.94	0.000	
CO2e metric tons/year:			**10,101.94**

Project Climate Zone Location: ○ Zone 4 ◉ Zone 5

PROJECT Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	900.000	6,047.000	5,442.300	8,165.700
Multi Family Residential	3,797.000	3,685.000	13,991.945	34,450.181

PROJECT Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	106.50	586.33	975.54	356.11
Junior High School	102.00	561.56	934.32	341.06
High School	202.40	1,114.31	1,853.98	676.77
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	3,319.27	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	854.00	10,801.32	12,195.12	4,451.66
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	458.00	5,792.75	6,540.24	2,387.42
Hardware/Paint Store	0.00	0.00		0.00

Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00
Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	11.70	178.41	206.86	75.51
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

BASELINE Residential:

	Number of units (from URBEMIS)	Estimated Electricity Use/Year (kwh/ residence)	Total Residential Electricity Use (mwh /year)	User Override of Residential Electricity Use (mwh/year)
Single Family Residential	0.000	6,047.000	0.000	
Multi Family Residential	0.000	3,685.000	0.000	

BASELINE Nonresidential:

Land Use Type	Square Footage (1,000) from URBEMIS	Estimated Electricty Use/Year (Megawatt-hours)	User Override of Electricity Use/Year (Megawatt-hours)	CO2 (metric tons/yr)
Day-Care Center	0.00	0.00		0.00
Elementary School	0.00	0.00		0.00
Junior High School	0.00	0.00		0.00
High School	0.00	0.00		0.00
Junior College	0.00	0.00		0.00
University/College	0.00	0.00		0.00
Library	0.00	0.00		0.00
Place of Worship	0.00	0.00		0.00
City Park	0.00	0.00		0.00
Racquet Club	0.00	0.00		0.00
Racquetball/Health	0.00	0.00		0.00
Quality Restaurant	0.00	0.00		0.00
High Turnover/Sit-Down Restaurant	0.00	0.00		0.00
Fast Food w/Drive Through	0.00	0.00		0.00
Fast Food w/o Drive Through	0.00	0.00		0.00
Hotel	0.00	0.00		0.00
Motel	0.00	0.00		0.00
Free-Standing Discount Store	0.00	0.00		0.00
Free-Standing Discount Superstore	0.00	0.00		0.00
Discount Club	0.00	0.00		0.00
Regional Shopping Center	0.00	0.00		0.00
Electronic Superstore	0.00	0.00		0.00
Home Improvement Superstore	0.00	0.00		0.00
Strip Mall	0.00	0.00		0.00
Hardware/Paint Store	0.00	0.00		0.00
Supermarket	0.00	0.00		0.00
Convenience Market	0.00	0.00		0.00

Convenience Market w/gas pumps	0.00	0.00		0.00
Gasoline Service Station	0.00	0.00		0.00
Bank w/Drive Through	0.00	0.00		0.00
General Office Building	0.00	0.00		0.00
Office Park	0.00	0.00		0.00
Government Office Building	0.00	0.00		0.00
Government Civic Center	0.00	0.00		0.00
Pharmacy w/Drive Through	0.00	0.00		0.00
Pharmacy w/o Drive Through	0.00	0.00		0.00
Medical Office Building	0.00	0.00		0.00
Hospital	0.00	0.00		0.00
Warehouse	0.00	0.00		0.00
General Light Industry	0.00	0.00		0.00
General Heavy Industry	0.00	0.00		0.00
Industrial Park	0.00	0.00		0.00
Manufacturing	0.00	0.00		0.00

Greenhouse Gas Emission Factors

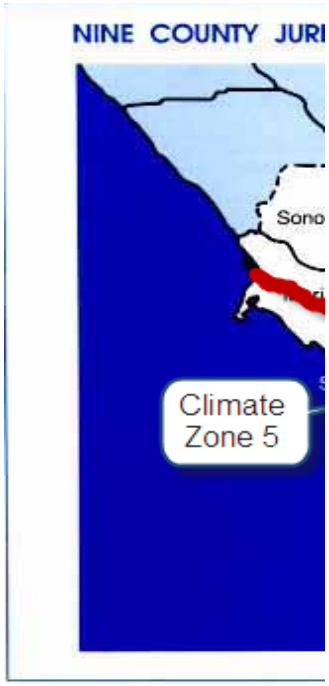
	CO2	CH4	N2O	
Electricity	804.54	0.0067	0.0037	
Units	lbs CO2/mwh	lbs CH4/mwh	lbs N20/MWH	Source: Climate Acti
Natural Gas	53.06	0.005	0.0001	
Units	CO2 (kg CO2/MMBtu)	CH4 (kg/MMBtu)	N2O(kg/MMBtu)	Source: Climate Acti

Summary	Climate Zone 4 Summary		Climate Zone 5 Summary	
	Electric (kwh/sf)	Natural Gas (MM Btu/sf)	Electric (kwh/sf)	Natural Gas (MM Btu/sf)
All Commercial	13.64	0.02949	13.19	0.03169
Small Office (<30,000 sf)	17.37	0.00975	14.49	0.02999
Large Office (>= 30,000 sf)	23.51	0.02639	15.25	0.02328
Restaurant	35.97	0.21255	31.41	0.17108

Retail	12.82	0.00301	12.65	0.00551
Food Store	44.34	0.02577	40.26	0.04135
Refrigerated Warehouse	10.12	0.00388	24.86	0.01869
Unrefrigerated Warehouse	4.26	0.00440	4.56	0.00169
School	6.65	0.02271	5.51	0.01958
College	9.75	0.02754	12.70	0.04185
Health	23.03	0.11871	18.40	0.11073
Lodging	9.33	0.04695	10.03	0.03915
Miscellaneous	9.81	0.02965	8.98	0.02724
All Offices	21.35	0.02052	15.14	0.02426
All Warehouses	5.82	0.00426	7.71	0.00433

Mitigated Electricity			
	Project	Baseline	Project-Baseline
CO2 metric tons/year CO2:	23,844.879	0.000	
CH4 metric tons/year CH4:	0.199	0.000	
N2O metric tons/year:	0.110	0.000	
CO2e metric tons/year:	23,883.044	0.000	
CO2e metric tons/year:			**23,883.04**

Mitigated Natural Gas			
	Project	Baseline	Project-Baseline
CO2 metric tons/year:	10076.115	0.000	
CH4 metric tons/year:	0.950	0.000	
N2O metric tons/year:	0.019	0.000	
CO2e metric tons/year:	10101.941	0.000	
CO2e metric tons/year:			**10,101.94**



***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

For detailed climate
http://capabilities.itr

Clear All User Overrides

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
2,980.777	0.0248	0.0137	49.600	44,640.000	33,300.000
12,575.567	0.1047	0.0578	22.500	85,432.500	140,489.000

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0030	0.0016	2,085.24	1,964.93	104.07	0.00981
0.0028	0.0016	1,997.14	1,881.90	99.67	0.00939
0.0056	0.0031	3,962.94	3,734.28	197.78	0.01864
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0371	0.0205	4,707.51	5,653.48	299.43	0.02822
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0199	0.0110	2,524.64	3,031.96	160.58	0.01513
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0006	0.0003	272.41	190.13	10.07	0.00095
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

CO2 (metric tons/year)	CH4 (metric tons/yr)	N20 (metric tons/yr)	Estimated Natural Gas Use (MMBtu/residence/year)	Estimated Natural Gas use (MM Btu/year)	User Override of Natural Gas Use (MM Btu/year)
0.000	0.0000	0.0000	49.600	0.000	
0.000	0.0000	0.0000	22.500	0.000	

CH4 (metric tons/yr)	N2O (metric tons/yr)	Estimated Natural Gas Use/Year (MM Btu)	User Override of Natural Gas Use (MM Btu/Year)	CO2 (metric tons/yr)	CH4 (metric tons/yr)
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000
0.0000	0.0000	0.00		0.00	0.00000

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

ion Registry General Reporting Protocol, Version 3.1, January, 2009.

zone map see:
ron.com/CeusWeb/FCZMap.aspx

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	Elec Use	Gas Use
1,763.691	0.166	0.003	8,165.70	33,300.00
7,440.818	0.701	0.014	34,450.18	140,489.00

Residential Energy Use from California Statewide Residentia
See also Executive Summary for Natural Gas Use by Building

N2O (metric tons/yr)	Elect Use	Gas Use
0.00000	0.00	0.00
0.00020	975.54	1,964.93
0.00019	934.32	1,881.90
0.00037	1,853.98	3,734.28
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00056	12,195.12	5,653.48
0.00000	0.00	0.00
0.00000	0.00	0.00
0.00030	6,540.24	3,031.96
0.00000	0.00	0.00

User Provided Blank Land Use Data: Project Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00002	206.86	190.13	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
0.00000	0.00	0.00	
	65,321.94	190,245.67	Unmitigated
	65,321.94	190,245.67	Mitigated
	65,321.94	190,245.67	Mitigated %

CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
0.000	0.000	0.000
0.000	0.000	0.000

N2O (metric tons/yr)
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
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0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Electricity Use/Year (MWH/Year)

0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000
0.00000

al Appliance Saturation Study, Tables 2-9, 2-13,2-15,2-4,2-5,2-23,2-24
g Age

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Natural Gas Use/Year (MM Btu/Year)	Electricity CO2 (metric tons/yr)	Electricity CH4 (metric tons/yr)	Electricity N2O (metric tons/yr)	Gas CO2 (metric tons/yr)	Gas CH4 (metric tons/yr)	Gas N2O (metric tons/yr)
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000
	0.00	0.00000	0.00000	0.00	0.00000	0.00000

Water and Wastewater

Baseline is currently: OFF

Unmitigated Water and Wastewater			
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	1458.6917	0.0000	
CH4 metric tons/year:	0.0121	0.0000	
N20 metric tons/year:	0.0067	0.0000	
CO2e metric tons/year:	1461.0264	0.0000	
CO2e metric tons/year:			**1,461.03**

Clear All User Overrides

	User Override of Model Estimates (af/yr)	Model Estimate (af/yr)	Total Gallons/year	Indoor Gallons/Year
Baseline Water Demand		0.00	0	0.00
Project Water Demand	2,628.00	1,493.01	486,571,269	296,808,474.31
Net Increase in Water Demand		1,493.01	486,571,269	296,808,474.31

Houshold Size	
Single Family	Multi-family
2.94	2.65

Land Use Type	**Square feet per e**
1	Warehouse
2	Public Assembly
3	Lodging
4	Food Sales
5	Retail and Service
6	Education
7	Public Order and
8	Food Service
9	Other
10	Health Care
11	Office

PROJECT	
% indoor water use	0.610

% outdoor water use	0.390
Total	1.00

Project Water Demand - Indoor	2826943.25	kwh/year
Project Water Demand - Outdoor	1169075.00	kwh/year
Total	3996018.25	kwh/year

Greenhouse Gas Emission Factors	CO2	CH4	N2O
Electricity	804.54	0.0067	0.0037
Units	#/mwh	#/mwh	#/mwh

from California Cl

Table ES-1. Recommended revised water-energy proxies

	Indoor Uses		Outdoor Uses	
	Northern California kWh/MG	Southern California kWh/MG	Northern California kWh/MG	Southern California kWh/MG
Water Supply and Conveyance	2,117	9,727	2,117	9,727
Water Treatment	111	111	111	111
Water Distribution	1,272	1,272	1,272	1,272
Wastewater Treatment	1,911	1,911	0	0
Regional Total	5,411	13,022	3,500	11,111

from Navigant, 2006

Gallons Per Acre Foot:	325,900.00

Indoor vs. Outdoor Water Use				
	Indoor	Outdoor	Total	
2001	0.64	0.36	1.00	
2002	0.64	0.36	1.00	
2003	0.64	0.36	1.00	LU Type
2004	0.64	0.36	1.00	6
2005	0.64	0.36	1.00	6

2006	0.63	0.37	1.00	6
2007	0.63	0.37	1.00	6
2008	0.63	0.37	1.00	6
2009	0.63	0.37	1.00	6
2010	0.63	0.37	1.00	6
2011	0.63	0.37	1.00	9
2012	0.63	0.37	1.00	2
2013	0.63	0.37	1.00	5
2014	0.63	0.37	1.00	5
2015	0.63	0.37	1.00	8
2016	0.62	0.38	1.00	8
2017	0.62	0.38	1.00	8
2018	0.62	0.38	1.00	8
2019	0.62	0.38	1.00	3
2020	0.62	0.38	1.00	3
2021	0.62	0.38	1.00	5
2022	0.62	0.38	1.00	5
2023	0.62	0.38	1.00	5
2024	0.62	0.38	1.00	5
2025	0.62	0.38	1.00	5
2026	0.61	0.39	1.00	5
2027	0.61	0.39	1.00	5
2028	0.61	0.39	1.00	5
2029	0.61	0.39	1.00	4
2030	0.61	0.39	1.00	4
				4
				9
	Water Use			5
Year	Single Family (gallons a day/ capita)	Multi-family (gallons a day/ capita)	Non-Res (gallons a day/ employee)	11
2001	108.00	75.00	86.00	11
2002	107.79	74.72	85.97	11
2003	107.59	74.45	85.93	11
2004	107.38	74.17	85.90	5
2005	107.17	73.90	85.86	5
2006	106.97	73.62	85.83	10
2007	106.76	73.34	85.79	10
2008	106.55	73.07	85.76	1

2009	106.34	72.79	85.72	1
2010	106.14	72.52	85.69	1
2011	105.93	72.24	85.66	1
2012	105.72	71.97	85.62	1
2013	105.52	71.69	85.59	
2014	105.31	71.41	85.55	
2015	105.10	71.14	85.52	
2016	104.90	70.86	85.48	
2017	104.69	70.59	85.45	
2018	104.48	70.31	85.41	
2019	104.28	70.03	85.38	LU Type
2020	104.07	69.76	85.34	6
2021	103.86	69.48	85.31	6
2022	103.66	69.21	85.28	6
2023	103.45	68.93	85.24	6
2024	103.24	68.66	85.21	6

2025	103.03	68.38	85.17	6
2026	102.83	68.10	85.14	6
2027	102.62	67.83	85.10	9
2028	102.41	67.55	85.07	2
2029	102.21	67.28	85.03	5
2030	102.00	67.00	85.00	5
				8
				8
				8
				8
				3
				3
				5
				5
				5
				5
				5
				5
				5
				5
				4
				4
				4
				9
				5
				11
				11
				11
				11
				5
				5
				10
				10
				1
				1
				1
				1
				1

Source:

San Francisco PUC Wholesale Customer Water Demand Projections Technical Report,
Prepared by URS Corporation and Maddaeus Water Management, November 2004.
Tables 3-2 and 5-2

	Mitigated Water and Wastewater		
	Project	**Baseline**	**Project-Baseline**
CO2 metric tons/year:	828.7056	0.0000	
CH4 metric tons/year:	0.0069	0.0000	
N20 metric tons/year:	0.0038	0.0000	
CO2e metric tons/year:	830.0319	0.0000	
CO2e metric tons/year:			**830.03**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

Outdoor Gallons/year	Mitigated Indoor Gallons/Year	Mitigated Outdoor Gallons/year	Total Mitigated kwh/year
0.00	0.00	0.00	
189,762,795.05	296,808,474.31	189,762,795.05	
189,762,795.05	296,808,474.31	189,762,795.05	
	1606030.65	664169.78	2,270,200.44

mployee	
	1,700.00
	1,300.00
	1,300.00
	1,000.00
	900.00
	766.00
Safety	750.00
	600.00
	550.00
	500.00
	400.00

Energy Information Administration Special Topics 1995 Building Activities Other, Square
http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/office/office_hov

BASELINE	
% indoor water use	0.000

% outdoor water use	0.000
Total	0.00

Baseline Demand - Indoor	0.00	kwh/year
Baseline Demand - Outdoor	0.00	kwh/year
Total	0.00	kwh/year

imate Action Registry, 2009

From URBEMIS: Project Data		
Land Use Residential	Units	Projected Water Use (gallons/yr)
Single Family Residential	900.00	98,510,580.00
Multi-family Residential	3,797.00	246,067,432.75
Land Use Nonresidential	Square Feet	Projected Water Use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	106.50	4,313,528.07

User Provided Blank Land Use Data: Pro
Land Use Name

Junior High School	102.00	4,131,266.32	
High School	202.40	8,197,728.46	
Junior College	0.00	0.00	
University/College	0.00	0.00	
Library	0.00	0.00	
Place of Worship	0.00	0.00	
City Park	3,319.27	79,215,696.96	
Racquet Club	0.00	0.00	
Racquetball/Health	0.00	0.00	
Quality Restaurant	0.00	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.00	
Fast Food w/Drive Through	0.00	0.00	
Fast Food w/o Drive Through	0.00	0.00	
Hotel	0.00	0.00	
Motel	0.00	0.00	
Free-Standing Discount Store	0.00	0.00	
Free-Standing Discount Superstore	0.00	0.00	
Discount Club	0.00	0.00	
Regional Shopping Center	854.00	29,439,277.78	
Electronic Superstore	0.00	0.00	
Home Improvement Superstore	0.00	0.00	
Strip Mall	458.00	15,788,277.78	
Hardware/Paint Store	0.00	0.00	
Supermarket	0.00	0.00	
Convenience Market	0.00	0.00	
Convenience Market w/gas pumps	0.00	0.00	
Gasoline Service Station	0.00	0.00	
Bank w/Drive Through	0.00	0.00	
General Office Building	0.00	0.00	
Office Park	0.00	0.00	
Government Office Building	11.70	907,481.25	
Government Civic Center	0.00	0.00	
Pharmacy w/Drive Through	0.00	0.00	
Pharmacy w/o Drive Through	0.00	0.00	
Medical Office Building	0.00	0.00	
Hospital	0.00	0.00	
Warehouse	0.00	0.00	

General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		486,571,269.36

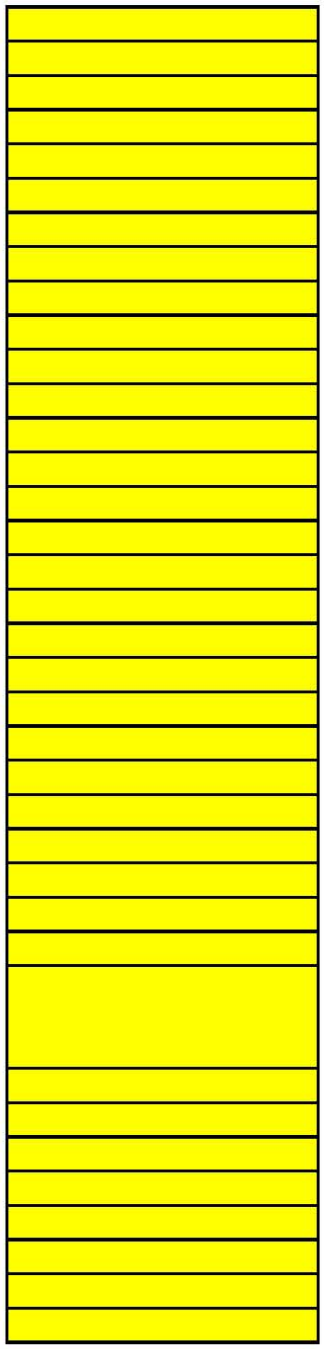
From URBEMIS: Baseline Data		
Land Use Residential	Units	Projected Water use (gallons/yr)
Single Family Residential	0.00	0.00
Multi-family Residential	0.00	0.00
Land Use Nonresidential	Square Feet	Projected Water use (gallons/yr)
Day-Care Center	0.00	0.00
Elementary School	0.00	0.00
Junior High School	0.00	0.00
High School	0.00	0.00
Junior College	0.00	0.00

User Provided Blank Land Use Data: Ba
Land Use Name

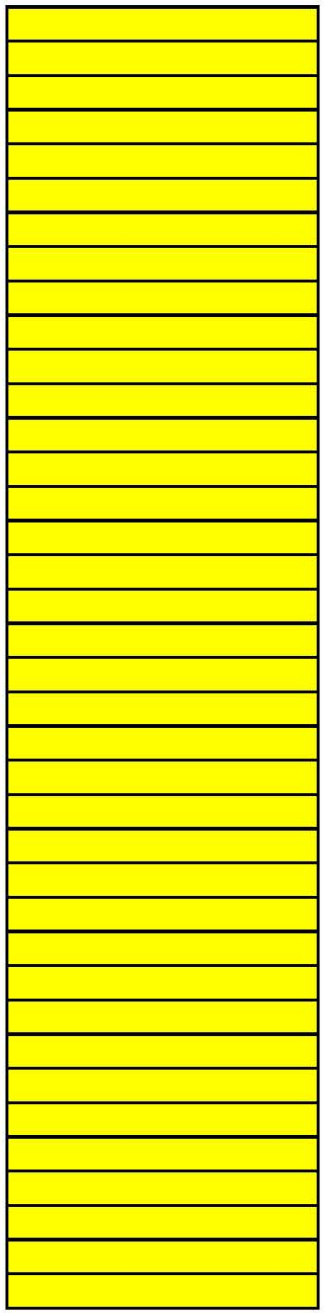
University/College	0.00	0.00
Library	0.00	0.00
Place of Worship	0.00	0.00
City Park	0.00	0.00
Racquet Club	0.00	0.00
Racquetball/Health	0.00	0.00
Quality Restaurant	0.00	0.00
High Turnover/Sit-Down Restaurant	0.00	0.00
Fast Food w/Drive Through	0.00	0.00
Fast Food w/o Drive Through	0.00	0.00
Hotel	0.00	0.00
Motel	0.00	0.00
Free-Standing Discount Store	0.00	0.00
Free-Standing Discount Superstore	0.00	0.00
Discount Club	0.00	0.00
Regional Shopping Center	0.00	0.00
Electronic Superstore	0.00	0.00
Home Improvement Superstore	0.00	0.00
Strip Mall	0.00	0.00
Hardware/Paint Store	0.00	0.00
Supermarket	0.00	0.00
Convenience Market	0.00	0.00
Convenience Market w/gas pumps	0.00	0.00
Gasoline Service Station	0.00	0.00
Bank w/Drive Through	0.00	0.00
General Office Building	0.00	0.00
Office Park	0.00	0.00
Government Office Building	0.00	0.00
Government Civic Center	0.00	0.00
Pharmacy w/Drive Through	0.00	0.00
Pharmacy w/o Drive Through	0.00	0.00
Medical Office Building	0.00	0.00
Hospital	0.00	0.00
Warehouse	0.00	0.00
General Light Industry	0.00	0.00
General Heavy Industry	0.00	0.00
Industrial Park	0.00	0.00
Manufacturing	0.00	0.00
		0.00

feet per employee.
vmanyempl.htm

›ject Data
Projected Water Use (gallons/yr)



seline Data
Projected Water Use (gallons/yr)



Solid Waste

Baseline is currently: OFF

	Unmitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	12.02	0.00	
Truck Haul CH4 (metric tons/year):	0.0001	0.0000	
Truck Haul CO2e (metric tons/year):	12.02	0.00	
Landfill Offgasing (CO2e metric tons/year):	6,866.47	0.00	
Total Solid Waste (CO2e metric tons/year):	6,878.50	0.00	
Total Solid Waste (CO2e metric tons/year):			**6,878.50**

Project Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Base

Clear All User Overrides

Project	Defaults	User Override
Average Round Trip Truck Haul Distance (miles):	40.00	10.00
Solid Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	715.26	
Miles per Year:	7,152.58	

Avg Round Trip
Solid

PROJECT Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	900.00	2.23	2,008.78	972.00
Multi-Family Residential	3,797.00	1.17	4,442.49	4,100.76
PROJECT Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)

Day-Care Center	0.00	0.0013	0.00	
Elementary School	106.50	0.0013	138.45	
Junior High School	102.00	0.0013	132.60	
High School	202.40	0.0013	263.12	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	3,319.27	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	
Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	854.00	0.0046	3,896.38	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	458.00	0.0024	1,099.20	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	11.70	0.0108	126.36	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	

Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	
			12,107.37	

BASELINE Residential Land Use (From URBEMIS)	Units	Estimated Solid Waste Generation Rate (tons/residence/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Single Family Residential	0.00	2.23	0.00	
Multi-Family Residential	0.00	1.17	0.00	
BASELINE Nonresidential Land Use (From URBEMIS)	Square Footage (1,000) from URBEMIS	Estimated Solid Waste Generation Rate (tons/sf/yr)	Estimated Solid Waste Generation/Year (tons)	User Override of Solid Waste Generated/Year (tons)
Day-Care Center	0.00	0.0013	0.00	
Elementary School	0.00	0.0013	0.00	
Junior High School	0.00	0.0013	0.00	
High School	0.00	0.0013	0.00	
Junior College	0.00	0.0013	0.00	
University/College	0.00	0.0013	0.00	
Library	0.00	0.0013	0.00	
Place of Worship	0.00	0.0013	0.00	
City Park	0.00	0.0000	0.00	
Racquet Club	0.00	0.0057	0.00	
Racquetball/Health	0.00	0.0057	0.00	
Quality Restaurant	0.00	0.0009	0.00	
High Turnover/Sit-Down Restaurant	0.00	0.0009	0.00	
Fast Food w/Drive Through	0.00	0.0009	0.00	
Fast Food w/o Drive Through	0.00	0.0009	0.00	
Hotel	0.00	0.0108	0.00	
Motel	0.00	0.0108	0.00	

Free-Standing Discount Store	0.00	0.0046	0.00	
Free-Standing Discount Superstore	0.00	0.0046	0.00	
Discount Club	0.00	0.0046	0.00	
Regional Shopping Center	0.00	0.0046	0.00	
Electronic Superstore	0.00	0.0046	0.00	
Home Improvement Superstore	0.00	0.0046	0.00	
Strip Mall	0.00	0.0024	0.00	
Hardware/Paint Store	0.00	0.0024	0.00	
Supermarket	0.00	0.0057	0.00	
Convenience Market	0.00	0.0024	0.00	
Convenience Market w/gas pumps	0.00	0.0024	0.00	
Gasoline Service Station	0.00	0.0024	0.00	
Bank w/Drive Through	0.00	0.0108	0.00	
General Office Building	0.00	0.0108	0.00	
Office Park	0.00	0.0108	0.00	
Government Office Building	0.00	0.0108	0.00	
Government Civic Center	0.00	0.0108	0.00	
Pharmacy w/Drive Through	0.00	0.0024	0.00	
Pharmacy w/o Drive Through	0.00	0.0024	0.00	
Medical Office Building	0.00	0.0108	0.00	
Hospital	0.00	0.0108	0.00	
Warehouse	0.00	0.0026	0.00	
General Light Industry	0.00	0.0011	0.00	
General Heavy Industry	0.00	0.0011	0.00	
Industrial Park	0.00	0.0011	0.00	
Manufacturing	0.00	0.0026	0.00	

WARM Emission Factors			
	Landfilling, No Recovery	Landfilling w/Flaring	Landfilling w/Energy Recovery
Mixed Solid Waste	3.10	0.64	0.30
Emissions (from EMFAC2007, 35 mph for Heavy-Heavy Duty Trucks			
Year	CO2 (grams/mile)	CH4 (grams/mile)	
2005	1,723.50	0.06	

2006	1,733.00	0.06	
2007	1,740.80	0.06	
2008	1,748.40	0.05	
2009	1,755.80	0.05	
2010	1,763.00	0.05	
2011	1,769.30	0.04	
2012	1,775.00	0.04	
2013	1,780.40	0.04	
2014	1,785.10	0.03	
2015	1,789.20	0.03	
2016	1,792.90	0.03	
2017	1,796.20	0.03	
2018	1,799.00	0.02	
2019	1,801.60	0.02	
2020	1,803.60	0.02	
2025	1,809.70	0.02	
2030	1,812.10	0.01	
2035	1,813.40	0.01	

2040	1,813.80	0.01	

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse G
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requ

	Mitigated Solid Waste		
	Project	**Baseline**	**Project - Baseline**
Truck Haul CO2 (metric tons/year):	12.02	0.00	
Truck Haul CH4 (metric tons/year):	0.0001	0.0000	
Truck Haul CO2e (metric tons/year):	12.02	0.00	
Landfill Offgasing (CO2e metric tons/year):	6,866.47	0.00	
Total Solid Waste (CO2e metric tons/year):	6,878.50	0.00	
Total Solid Waste (CO2e metric tons/year):			**6,878.50**

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

eline Landfill disposal option:

Select 1 of 3 options

- ○ Landfilling only
- ◉ Landfilling with Flaring to Burn Methane
- ○ Landfilling with Energy Recovery

Baseline	Defaults	User Override
Truck Haul Distance (miles):	40.00	
Waste Truck Capacity (tons):	15.00	
Round Trips/Year:	0.00	
Miles per Year:	0.00	

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
622.08	972.00
2,624.49	4,100.76
CO2 (metric tons/yr)	

User Provided Blank Land Use Data: Project Data

0.00	0.00
88.61	138.45
84.86	132.60
168.40	263.12
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
2,493.68	3,896.38
0.00	0.00
0.00	0.00
703.49	1,099.20
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
80.87	126.36
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

Land Use Name	Solid Waste Generation/Year (tons)	CO2e (metric tons/year)
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00

0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
6,866.47	10,728.87

		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

CO2e (metric tons/year)	Solid Waste Generated/Year (tons)
0.00	0.00
0.00	0.00
CO2 (metric tons/yr)	
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

User Provided Blank Land Use Data: Baseline Data

Land Use Name	Solid Waste Generation/Year (tons)	CO2e (metric tons/year)
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
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		0.00
		0.00
		0.00

Gas Reductions

irements for Gasoline and Diesel

Agriculture

Baseline is currently: OFF

Agriculture			
	Project	**Baseline**	**Project - Baseline**
CO2 metric tons/year:	0.000	0.00	
CH4 metric tons/year:	0.000	0.00	
N2O metric tons/year:	0.000	0.00	
CO2e metric tons/year:	0.00	0.00	
CO2e metric tons/year:			**0.00**

Clear All User Inputs

PROJECT Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

PROJECT Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year

Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.00	0.00	0.00

PROJECT Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.0000	0.0000	0.00
Diesel Fuel		0.00	0.0000	0.0000	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.0000	0.0000	0.00

PROJECT Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

PROJECT Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Note: GHG emissions associated with water use assumed to be accounted for in the fuel and electricity consumption.

Animal Type	Enteric Fermentation Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons CH4/head/yr)	Manure Emission Rates (metric tons N2O/head/yr)
Beef Cattle	0.085556	0.002158	0.000000
Beef Replacement Heifers	0.066208	0.001914	0.000000
Steers	0.033349	0.001470	0.000000
Bulls	0.053000	0.002793	0.000000
Milk Cows	0.116520	0.164125	0.000738
Dry Cows	0.116520	0.165125	0.000738
Heifers, 15-24 months	0.067047	0.002210	0.001620
Heifers, 7-14 months	0.042376	0.002210	0.001620
Heifers, 4-6 months	0.042376	0.002210	0.001620
Calves	0.042376	0.002210	0.001620

Chickens (fryers)	0.000000	0.000018	0.000002
Goats, Hogs, Pigs	0.001500	0.028228	0.000141
Sheeps and Lambs	0.008000	0.000781	0.000002
Turkeys	0.000000	0.000086	0.000010

Low Carbon Fuels Standards		
Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Table C.3, CCAR	Table c.6, CCAR	Table C.6, CCAR
CO2	CH4	N2O
kg/gallon	grams/gallon	grams/gallon
8.81	1.26	0.22
10.15	1.44	0.26
5.74	0.09	0.41

Table C.7, CCAR	Table C.9, CCAR	Table C.9, CCAR
kg/gallon	kg/gallon	kg/gallon
8.8100	0.0014	0.0001
10.1500	0.0015	0.0001
5.7400	0.0010	0.0001

Table E.1, CCAR CAMX (#/MWh)	Table E.2, CCAR (#/MWh)	Table E.2, CCAR(#,MWh)
878.7100	0.0067	0.0037

0.01425	metric tons N2O per ton organic and synthetic fertilzers applied

BASELINE Animals	Animals	Enteric Fermentation Methane Emissions (metric tons/year)	Manure Emission Rates (metric tons methane per year)	Manure Emission Rates (metric tons N2O/year)
Beef Cattle		0.00	0.0000	0.0000
Beef Replacement Heifers		0.00	0.0000	0.0000
Steers		0.00	0.0000	0.0000
Bulls		0.00	0.0000	0.0000
Milk Cows		0.00	0.0000	0.0000
Dry Cows		0.00	0.0000	0.0000
Heifers, 15-24 months		0.00	0.0000	0.0000
Heifers, 7-14 months		0.00	0.0000	0.0000
Heifers, 4-6 months		0.00	0.0000	0.0000
Calves		0.00	0.0000	0.0000
Chickens (fryers)		0.00	0.0000	0.0000
Goats, Hogs, Pigs		0.00	0.0000	0.0000
Sheeps and Lambs		0.00	0.0000	0.0000
Turkeys		0.00	0.0000	0.0000
Totals	0	0.00	0.00	0.00

BASELINE Agricultural Equipment	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year

Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.0000	0.0000	0.00
		0.00	0.00	0.00	0.00

BASELINE Stationary Combustion	gallons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Gasoline		0.00	0.00	0.00	0.00
Diesel Fuel		0.00	0.00	0.00	0.00
Propane		0.00	0.00	0.00	0.00
		0.00	0.0000	0.0000	0.00

BASELINE Elecricity	kwh/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Electricity Consumption (kwh/year)		0.0000	0.0000	0.0000	0.00

BASELINE Fertilzer	Tons/year	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2e (metric tons/year
Fertilzer Used (tons/year)		0.00	0.00	0.00	0.00

Off-Road Equipment

Baseline is currently: OFF

	Project					Off-Road Equipment
	Gasoline	Diesel Fuel	Propane	Total		
CO2 metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2 metric tons/year:
CH4 metric tons/year:	0.0000	0.0000	0.0000	0.00		CH4 metric tons/year:
N2O metric tons/year:	0.0000	0.0000	0.0000	0.00		N2O metric tons/year:
CO2e metric tons/year:	0.0000	0.0000	0.0000	0.00		CO2e metric tons/year:
CO2e metric tons/year:						

Off-Road Equipment (typically used in commercial and industrial activities, e.g., forklifts, compressors, etc.)
(This does not include landscape maintenance equipment, which is accounted for in the area source calculations.)

PROJECT Fuel Use	Total Gallons Used per Year
Gasoline	
Diesel Fuel	
Propane	

Clear All User Inputs

BASELINE Fuel Use
Gasoline
Diesel Fuel
Propane

Table C.3, CCAR CO2 kg/gallon	Table c.6, CCAR CH4 grams/gallon	Table C.6, CCAR N2O grams/gallon
8.81	0.50	0.22

10.15	0.58	0.26
5.74	0.09	0.41

Low Carbon Fuel Standard

Year	% Reduction Gasoline and Diesel Fuel	% Reduction Tank to Wheels
2010	0.00	0.00
2011	0.25	0.18
2012	0.50	0.36
2013	1.00	0.72
2014	1.50	1.08
2015	2.50	1.80
2016	3.50	2.52
2017	5.00	3.60
2018	6.50	4.68
2019	8.00	5.76
2020	10.00	7.20
2021	10.00	7.20
2022	10.00	7.20
2023	10.00	7.20
2024	10.00	7.20
2025	10.00	7.20
2026	10.00	7.20
2027	10.00	7.20
2028	10.00	7.20
2029	10.00	7.20
2030	10.00	7.20
2031	10.00	7.20
2032	10.00	7.20
2033	10.00	7.20
2034	10.00	7.20
2035	10.00	7.20
2036	10.00	7.20
2037	10.00	7.20
2038	10.00	7.20
2039	10.00	7.20
2040	10.00	7.20

Source:
Final Regulation Order
Subchapter 10. Climate Change
Article 4. Regulations to Achieve Greenhouse Gas Reductions
Subarticle 7. Low Carbon Fuel Standard
Section 95482. Average Carbon Intensity Requirements for Gasoline and Diesel

Baseline				Project - Baseline
Gasoline	Diesel Fuel	Propane	Total	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
0.0000	0.0000	0.0000	0.00	
				0.00

Total Gallons Used per Year

Refrigerants

Baseline is currently: OFF

	Unmitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

PROJECT Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)	Default GWP (weighted average)	User Override of GWP
Centralized		0.00		3,219.92	
Cold Storage		0.00		2,366.92	
Process Cooling		0.00		1,204.20	
Refrigerant Condensing Units		0.00		2,265.28	
PROJECT AC Systems					
Centrifugal Chiller (large)		0.00		1,349.34	
Centrifugal Chiller (medium)		0.00		1,349.34	
Packaged Chiller (medium)		0.00		1,349.34	
Unitary AC (small)		0.00		1,685.29	

* If user knows type of refrigerant proposed, then the default GWP value should be used to override the default value

Average Leak Rates (Annual	Default
Refrigeration Systems	Leak Rate (%)

Refigerant Losses: Based Primarily on Appendix B: California Facilities and

	Centralized	10.00
	Cold Storage	10.00
	Process Cooling	7.00
	Refrigerant Condensing Units	5.00
AC Systems		
	Centrifugal Chiller (large)	2.00
	Centrifugal Chiller (medium)	1.00
	Packaged Chiller (medium)	3.50
	Unitary AC (small)	5.00

Refrigerant Distribution						
Centralized Systems		GWP	2,010.00	2,011.00	2,012.00	2,013.00
	HCFC-22	1,500	42.20			
	R-404A	3,260	39.70			
	R-507	3,300	18.10			
	Weighted GWP		2,524.52	2,594.06	2,663.60	2,733.14
Cold Storage						
	CFC-12	8,100	2.00			
	HCFC-22	1,500	56.60			
	R-404A	3,260	26.20			
	R-502	4,500	6.60			
	R-507	3,300	8.60			
	Weighted GWP		2,445.92	2,438.02	2,430.12	2,422.22
Process Cooling						
	CFC-11	3,800	1.00			
	CFC-12	8,100	15.60			
	HCFC-22	1,500	22.00			
	HCFC-123	90	23.30			
	HFC-134A	1,300	33.30			
	R-401A	970	0.40			
	R-404a	3,260	2.70			
	R-410A	1,725	0.90			
	R-507	3,300	0.90			
	Weighted GWP		2,222.60	2,120.76	2,018.92	1,917.08

Refrigerated Condensing Units						
	CFC-12	8,100	2.20			
	HCFC-22	1,500	30.40			
	HFC-134a	1,300	40.40			
	R-404a	3,260	19.00			
	R-507	3,300	8.00			
	Weighted GWP		2,042.80	2,065.05	2,087.30	2,109.54
Chillers						
	CFC-11	3,800	2.60			
	CFC-12	8,100	0.90			
	HCFC-22	1,500	73.80			
	HCFC-123	90	6.80			
	CFC-114	9,300	0.10			
	HFC-134A	1,300	14.10			
	HFC-236fa	6,300	0.40			
	R-407a	1,526	1.00			
	R-410a	1,725	0.10			
	R-500	6,010	0.20			
	Weighted GWP		1,531.63	1,513.40	1,495.17	1,476.94
Unitary AC						
	HCFC-22	1,500	78.40			
	HFC-134a	1,300	0.10			
	R-407a	1,526	0.30			
	R-410a	1,725	21.20			
	Weighted GWP		1,547.58	1,561.35	1,575.12	1,588.89

	Mitigated Refrigerants		
	Project	**Baseline**	**Project - Baseline**
Refrigeration Systems CO2e metric tons/year:	0.00	0.00	
AC Systems CO2e metric tons/year:	0.00	0.00	
Total Refrigerants CO2e metric tons/year:	0.00	0.00	
			0.00

***** Select Mitigation Measures on the Mitigation Tab ===>** Mitigation

CO2e (metric tons/year)	**BASELINE** Refrigeration Systems	Refrigerant Charge (pounds)	Leakage Rate (pounds/year)	User Overide of Leakage Rate (pounds/year)
0.00	Centralized		0.00	
0.00	Cold Storage		0.00	
0.00	Process Cooling		0.00	
0.00	Refrigerant Condensing Units		0.00	
	BASELINE AC Systems			
0.00	Centrifugal Chiller (large)		0.00	
0.00	Centrifugal Chiller (medium)		0.00	
0.00	Packaged Chiller (medium)		0.00	
0.00	Unitary AC (small)		0.00	

* If user knows type of refrigerant proposed, then the default GWP value should be used to ov

Clear All User Inputs and Overrides

2,014.00	2,015.00	2,016.00	2,017.00	2,018.00	2,019.00	2,020.00
						3.00
						65.20
						31.80
2,802.68	2,872.22	2,941.76	3,011.30	3,080.84	3,150.38	3,219.92
						0.00
						28.10
						54.20
						0.00
						17.70
2,414.32	2,406.42	2,398.52	2,390.62	2,382.72	2,374.82	2,366.92
						0.00
						0.00
						11.00
						29.40
						44.50
						0.30
						8.80
						3.40
						2.60
1,815.24	1,713.40	1,611.56	1,509.72	1,407.88	1,306.04	1,204.20

						0.00
						7.30
						44.50
						33.30
						14.90
2,131.79	2,154.04	2,176.29	2,198.54	2,220.78	2,243.03	2,265.28
						0.00
						0.00
						32.30
						8.20
						0.00
						32.30
						0.10
						18.20
						8.90
						0.00
1,458.71	1,440.48	1,422.25	1,404.02	1,385.79	1,367.57	1,349.34
						15.00
						0.70
						1.50
						82.80
1,602.66	1,616.43	1,630.21	1,643.98	1,657.75	1,671.52	1,685.29

Default GWP (weighted average)	User Override of GWP	CO2e (metric tons/year)
2,594.06		0.00
2,438.02		0.00
2,120.76		0.00
2,065.05		0.00

1,513.40		0.00
1,513.40		0.00
1,513.40		0.00
1,561.35		0.00

erride the default value

Mitigation

Mitigation Category

	Check=On	Mitigation Options	MMBtu/year Reduced	
Electricity & Natural Gas	☐	Solar Water Heater	5000	
	☐	Tankless Water Heater	5000	
			kwh/year reduced	MMBtu/year Increased
	☐	Cool Roofs/Green Roofs	5000	2
			% Increase In Energy Efficiency	
	☐	Increase Energy Efficiency Beyond Title 24	10	
			kwh/year generated	
	☐	Onsite Renewable Energy Systems - Solar	5000	
	☐	Onsite Renewable Energy Systems - Wind	5000	
	☐	Onsite Renewable Energy Systems - Other	5000	

		% Reduction Outdoor Use

Water and Wastewater	☐	Drought Tolerant Landscaping	10
			% Reduction Indoor Use
	☐	Low Flush Toilets	2

Solid Waste			Solid Waste Reduction %
	☐	Reduce Solid Waste by the Following Percentage	10

Refrigerants			% Reduction
	☐	Use Ammonia of CFCs or HCFCs	50

Offsets / Credits			Metric Tons CO2e/Year
	☐	Purchase Emission Offsets / Credits	5000

Calculations for Mitigation Selections

	0
	0
	0
Change in Natural Gas Use (MMBtu/year)	0
	0
	0
	0
	0
Change in Electricity Use (kwh/year)	0
Percentage Reduction in Elec and Nat Gas Use	0
% Reduction Outdoor H2O Use	0
% Reduction Indoor Water Use	0
Solid Waste Reduction %	0
% Reduction in CFC/HCFC Use	0

Baseline is currently: OFF

	Unmitigated Project-Baseline Emissions CO2e/year	Mitigated Project-Baseline Emissions CO2e/year
Transportation	71,253.28	71,253.28
Area Sources	33.08	33.08
Electricity	23,883.04	23,883.04
Natural Gas	10,101.94	10,101.94
Water and Wastewater	1,461.03	830.03
Solid Waste	6,878.50	6,878.50
Ag	0.00	0.00
Off-Road Equipment	0.00	0.00
Refrigerants	0.00	0.00
Sequestration	N/A	0.00
Emission Credits	N/A	0.00
Totals	113,610.87	112,979.87

Carbon Sequestration

Project Year:	2030
Emissions (CO2e metric tons/year):	0.00

Gas	Type	Unit of Measure	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Carbon dioxide	Total Storage	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbon dioxide	Annual Increase	metric tons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Number of Trees Planted					
	Hardwoods			Conifers		
Year	Fast	Medium	Slow	Fast	Medium	Slow
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

Clear All User Inputs

Sequestration in Data Year 1 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 2 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00

Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 3 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 4 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 5 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 6 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00

Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 7 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00

Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 8 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 9 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	

Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	Carbon Seq. (tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 10 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	Carbon Seq. (tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00

Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 11 for All Trees Planted Through Current Reporting Year

A. Species Characteristics	B	C	D	E	F	G

Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	Carbon Seq. (tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00

Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 12 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type	Growth Rate	Tree Age	No. Planted	Survival	No. of Trees	Seq. Rate	Carbon Seq.	
	(H OR C)	(S,M, or F)	Reporting Ye	(At Age 0)	Factor	Surviving	(lbs/tree)	(lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00

Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 13 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00

Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 14 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00

Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00
Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00

Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Sequestration in Data Year 15 for All Trees Planted Through Current Reporting Year

A. Species Characteristics			B	C	D	E	F	G	
Name	Tree Type (H OR C)	Growth Rate (S,M, or F)	Tree Age Reporting Ye	No. Planted (At Age 0)	Survival Factor	No. of Trees Surviving	Seq. Rate (lbs/tree)	Carbon Seq. (lbs)	(tons)
Fast-growth hardwoods	H	F	0	0	0.873	0.0	2.7	0.0	0.00
Med-growth hardwoods	H	M	0	0	0.873	0.0	1.9	0.0	0.00
Slow-growth hardwoods	H	S	0	0	0.873	0.0	1.3	0.0	0.00
Fast-growth conifers	C	F	0	0	0.873	0.0	1.4	0.0	0.00
Med-growth conifers	C	M	0	0	0.873	0.0	1.0	0.0	0.00
Slow-growth conifers	C	S	0	0	0.873	0.0	0.7	0.0	0.00
Fast-growth hardwoods	H	F	1	0	0.798	0.0	4	0.0	0.00
Med-growth hardwoods	H	M	1	0	0.798	0.0	2.7	0.0	0.00
Slow-growth hardwoods	H	S	1	0	0.798	0.0	1.6	0.0	0.00
Fast-growth conifers	C	F	1	0	0.798	0.0	2.2	0.0	0.00
Med-growth conifers	C	M	1	0	0.798	0.0	1.5	0.0	0.00
Slow-growth conifers	C	S	1	0	0.798	0.0	0.9	0.0	0.00
Fast-growth hardwoods	H	F	2	0	0.736	0.0	5.4	0.0	0.00
Med-growth hardwoods	H	M	2	0	0.736	0.0	3.5	0.0	0.00
Slow-growth hardwoods	H	S	2	0	0.736	0.0	2.0	0.0	0.00
Fast-growth conifers	C	F	2	0	0.736	0.0	3.1	0.0	0.00
Med-growth conifers	C	M	2	0	0.736	0.0	2.0	0.0	0.00
Slow-growth conifers	C	S	2	0	0.736	0.0	1.1	0.0	0.00
Fast-growth hardwoods	H	F	3	0	0.706	0.0	6.9	0.0	0.00
Med-growth hardwoods	H	M	3	0	0.706	0.0	4.3	0.0	0.00
Slow-growth hardwoods	H	S	3	0	0.706	0.0	2.4	0.0	0.00
Fast-growth conifers	C	F	3	0	0.706	0.0	4.1	0.0	0.00
Med-growth conifers	C	M	3	0	0.706	0.0	2.5	0.0	0.00
Slow-growth conifers	C	S	3	0	0.706	0.0	1.4	0.0	0.00
Fast-growth hardwoods	H	F	4	0	0.678	0.0	8.5	0.0	0.00
Med-growth hardwoods	H	M	4	0	0.678	0.0	5.2	0.0	0.00
Slow-growth hardwoods	H	S	4	0	0.678	0.0	2.8	0.0	0.00
Fast-growth conifers	C	F	4	0	0.678	0.0	5.2	0.0	0.00
Med-growth conifers	C	M	4	0	0.678	0.0	3.1	0.0	0.00
Slow-growth conifers	C	S	4	0	0.678	0.0	1.6	0.0	0.00
Fast-growth hardwoods	H	F	5	0	0.658	0.0	10.1	0.0	0.00
Med-growth hardwoods	H	M	5	0	0.658	0.0	6.1	0.0	0.00
Slow-growth hardwoods	H	S	5	0	0.658	0.0	3.2	0.0	0.00
Fast-growth conifers	C	F	5	0	0.658	0.0	6.4	0.0	0.00
Med-growth conifers	C	M	5	0	0.658	0.0	3.7	0.0	0.00
Slow-growth conifers	C	S	5	0	0.658	0.0	1.9	0.0	0.00
Fast-growth hardwoods	H	F	6	0	0.644	0.0	11.8	0.0	0.00
Med-growth hardwoods	H	M	6	0	0.639	0.0	7.1	0.0	0.00
Slow-growth hardwoods	H	S	6	0	0.639	0.0	3.7	0.0	0.00
Fast-growth conifers	C	F	6	0	0.644	0.0	7.6	0.0	0.00
Med-growth conifers	C	M	6	0	0.639	0.0	4.4	0.0	0.00
Slow-growth conifers	C	S	6	0	0.639	0.0	2.2	0.0	0.00
Fast-growth hardwoods	H	F	7	0	0.630	0.0	13.6	0.0	0.00
Med-growth hardwoods	H	M	7	0	0.621	0.0	8.1	0.0	0.00
Slow-growth hardwoods	H	S	7	0	0.621	0.0	4.1	0.0	0.00
Fast-growth conifers	C	F	7	0	0.630	0.0	8.9	0.0	0.00
Med-growth conifers	C	M	7	0	0.621	0.0	5.1	0.0	0.00
Slow-growth conifers	C	S	7	0	0.621	0.0	2.5	0.0	0.00
Fast-growth hardwoods	H	F	8	0	0.616	0.0	15.5	0.0	0.00
Med-growth hardwoods	H	M	8	0	0.603	0.0	9.1	0.0	0.00
Slow-growth hardwoods	H	S	8	0	0.603	0.0	4.6	0.0	0.00
Fast-growth conifers	C	F	8	0	0.616	0.0	10.2	0.0	0.00
Med-growth conifers	C	M	8	0	0.603	0.0	5.8	0.0	0.00
Slow-growth conifers	C	S	8	0	0.603	0.0	2.8	0.0	0.00
Fast-growth hardwoods	H	F	9	0	0.602	0.0	17.4	0.0	0.00
Med-growth hardwoods	H	M	9	0	0.589	0.0	10.2	0.0	0.00
Slow-growth hardwoods	H	S	9	0	0.585	0.0	5.0	0.0	0.00
Fast-growth conifers	C	F	9	0	0.602	0.0	11.7	0.0	0.00

Med-growth conifers	C	M	9	0	0.589	0.0	6.6	0.0	0.00
Slow-growth conifers	C	S	9	0	0.585	0.0	3.1	0.0	0.00
Fast-growth hardwoods	H	F	10	0	0.589	0.0	19.3	0.0	0.00
Med-growth hardwoods	H	M	10	0	0.576	0.0	11.2	0.0	0.00
Slow-growth hardwoods	H	S	10	0	0.568	0.0	5.5	0.0	0.00
Fast-growth conifers	C	F	10	0	0.589	0.0	13.2	0.0	0.00
Med-growth conifers	C	M	10	0	0.576	0.0	7.4	0.0	0.00
Slow-growth conifers	C	S	10	0	0.568	0.0	3.5	0.0	0.00
Fast-growth hardwoods	H	F	11	0	0.576	0.0	21.3	0.0	0.00
Med-growth hardwoods	H	M	11	0	0.564	0.0	12.3	0.0	0.00
Slow-growth hardwoods	H	S	11	0	0.552	0.0	6.0	0.0	0.00
Fast-growth conifers	C	F	11	0	0.576	0.0	14.7	0.0	0.00
Med-growth conifers	C	M	11	0	0.564	0.0	8.2	0.0	0.00
Slow-growth conifers	C	S	11	0	0.552	0.0	3.8	0.0	0.00
Fast-growth hardwoods	H	F	12	0	0.563	0.0	23.3	0.0	0.00
Med-growth hardwoods	H	M	12	0	0.551	0.0	13.5	0.0	0.00
Slow-growth hardwoods	H	S	12	0	0.536	0.0	6.5	0.0	0.00
Fast-growth conifers	C	F	12	0	0.563	0.0	16.3	0.0	0.00
Med-growth conifers	C	M	12	0	0.551	0.0	9.1	0.0	0.00
Slow-growth conifers	C	S	12	0	0.536	0.0	4.2	0.0	0.00
Fast-growth hardwoods	H	F	13	0	0.551	0.0	25.4	0.0	0.00
Med-growth hardwoods	H	M	13	0	0.539	0.0	14.6	0.0	0.00
Slow-growth hardwoods	H	S	13	0	0.524	0.0	7.0	0.0	0.00
Fast-growth conifers	C	F	13	0	0.551	0.0	17.9	0.0	0.00
Med-growth conifers	C	M	13	0	0.539	0.0	9.9	0.0	0.00
Slow-growth conifers	C	S	13	0	0.524	0.0	4.6	0.0	0.00
Fast-growth hardwoods	H	F	14	0	0.539	0.0	27.5	0.0	0.00
Med-growth hardwoods	H	M	14	0	0.527	0.0	15.8	0.0	0.00
Slow-growth hardwoods	H	S	14	0	0.512	0.0	7.5	0.0	0.00
Fast-growth conifers	C	F	14	0	0.539	0.0	19.6	0.0	0.00
Med-growth conifers	C	M	14	0	0.527	0.0	10.8	0.0	0.00
Slow-growth conifers	C	S	14	0	0.512	0.0	4.9	0.0	0.00
							Total Carbon Sequestered in Reporting Year	0.0	0.00
							Total CO2 Sequestered in Reporting Year (C x 3.6667)	0.0	0.00

Transportation

Operational Mitigation Residential

Transportation Detail for Operational Mitigation

Operational NonResidential Mitigation

Operational Annual Miscellaneous Detail

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Transportation

Land Use Detail

Land Use Description	Units	UnitType	Acreage	Trip Rate Unmitigated	Total Trips Unmitigated
Single family housing	900	dwelling units	169.44	9.57	8613
Apartments low rise	2517	dwelling units	322.65	9.57	24087.69
Apartments high rise	994	dwelling units	34.59	6.65	6610.1
Condo/townhouse general	286	dwelling units	20.05	5.81	1661.66
Elementary school	1500	students		1.29	1935
Junior high school	1200	students		1.62	1944
High school	2200	students		1.71	3762
City park	152.4	acres		1.59	242.32
Regnl shop. center	854	1000 sq ft		32.07	27387.78
Strip mall	458	1000 sq ft		39.86	18255.88
Goverment office building	11.7	1000 sq ft		52.5	614.25

Total VMT Unmitigated	Trip Rate Mitigated	Total Trips Mitigated	Total VMT Mitigated
64470.56	0	0	0
180302.68	0	0	0
49478.33	0	0	0
12437.96	0	0	0
10278.72	0	0	0
11096.35	0	0	0
23037.83	0	0	0
1382.03	0	0	0
128879.91	0	0	0
74202.03	0	0	0
2767.72	0	0	0

		Land Use Type								
		LDR	MDR	CMDR / Compact MDR	HDR	CMU	Total DUs	Total population	GHG Emissions	Excess GHG Emissions
Alternative	Avg DUs/acre	5.311	7.8	14.262	21.246	8.119				
Proposed Project	Acres	169.4	322.7	20.1	34.6	31.9				
	Dus	899.6834	2517.06	286.6662	735.1116	258.9961	4698	12,589	7.098833592	2.498833592
	trip rates									
	Excess GHGs/DU	0.478585	1.338944	0.152491	0.391041	0.137772	2.498834			
	Excess GHGs/trip									
Agency Conceptual Strategy	Acres	141.5	410.9	18.5	12.5	10.9				
	Dus	751.5065	3205.02	263.847	265.575	88.4971	4574	12,260	6.786909933	2.186909933
	Excess GHGs/DU									
Bio Impact Minimization	Acres	166.7	391.3	11.6	6.2	0				
	Dus	885.3437	3052.14	165.4392	131.7252	0	4235	11,349	6.145808977	1.545808977
	Excess GHGs/DU									
No USACE Permit	Acres	54.3	287.1	97.7	18.1	6.7				
	Dus	288.3873	2239.38	1393.397	384.5526	54.3973	4360	11,685	6.055786324	1.455786324
	Excess GHGs/DU									
Increased Development	Acres	609.8	173	0	31.4	17.7				
	Dus	3238.648	1349.4	0	667.1244	143.7063	5399	14,469	6.907332452	2.307332452
	Excess GHGs/DU									

SMUD: 2002 Baseline

		Annual Energy Intensities			Total Annual Usage	
Building Type	Floor Stock (kft2)	Electricity (kWh/ft2)	Natural Gas (therms/ft2)	Natural Gas (kBtu/ft2)	Electricity (GWh)	Natural Gas (Mtherms)
All Commercial	227,831	16.5	0.27	26.87	3759	61.2
Small Office (<30k ft2)	18,469	12.41	0.08	8.1	229	1.5
Large Office (>=30k ft2)	42,848	19.95	0.2	19.77	855	8.5
Restaurant	6,132	46.81	1.83	183.45	287	11.2
Retail	44,597	14.28	0.07	6.62	637	3
Food Store	5,582	44.79	0.29	28.99	250	1.6
Refrigerated Warehouse	2,722	16.85	0.02	1.58	46	0
Unrefrigerated Warehouse	15,307	3.76	0.01	0.64	58	0.1
School	20,005	9.16	0.18	18.45	183	3.7
College	11,968	10.84	0.32	32.48	130	3.9
Health	11,169	23.06	0.75	74.83	258	8.4
Lodging	9,691	12.26	0.42	41.54	119	4
Miscellaneous	39,342	18	0.39	38.95	708	15.3
All Offices	61,316	17.68	0.16	16.25	1084	10
All Warehouses	18,028	5.74	0.01	0.78	103	0.1

CEC CEUS Report: http://www.energy.ca.gov/ceus/

Sacramento County Average Water Demand Forecast
[Section 3]: http://www.msa2.saccounty.net/dwr/Pages/Reports-WSIP.aspx

SECTION 3. WATER DEMAND EVALUATION
Sacramento County Water Agency Zone 40
Zone 40 Water System Infrastructure Plan
Table 3-1. 2030 Unit Water Demand Factors

Land Use Category	Abbreviation	Demand Factor[a] (AF/acre/year)	gal/acre/yr
Rural Estates	RE	1.33	433447
Single Family	SF	2.89	941851
Multi-Family - Low Density	MFLD	3.7	1205830
Multi-Family - High Density	MFHD	4.12	1342708
Commercial	COM	2.75	896225
Industrial	IND	2.71	883189
Industrial – Unutilized	IUN	0	0
Public	PUB	1.04	338936
Public Recreation	REC	3.46	1127614
Mixed Land Use	MLU	2.51	818009
Right-of-Way	ROW	0.21	68439
Water System Losses (7.5%)			

Note: a. Zone 40 WSMP, February 2005.

Table 3-2. Zone 40 Existing and Build-Out Water Demand

Service Area	Demand Region	Existing Demand[a]	
	Annual Average (AF/year)	Annual Average (AF/year)	Max Day (MGD)
NSA	Mather Field	1,327	2.37
	Rio Del Oro - Cal Am Portion	-	-
	Rio Del Oro - Zone 40 Portion	-	-
	Sunrise Corridor	1,077	1.92
	Sunrise Douglas	-	-
	NSA Total Demand	2,404	4
CSA	Vineyard SWTP Parcel	-	-
	FRCD/EGWS	2,672	4.77
	Grantline/99	1,208	2.16
	Near Term Development Area	-	-
	Vineyard	3,476	6.21
	Vineyard Springs Comprehensive Plan	759	1.36
	Florin Vineyard (w/ some POU areas)[b]	-	-
	North Vineyard Station (w/ some POU areas)	-	-
	POU Area Only[c]	-	-
	CSA Total Demand	8,115	14

SSA[b]	Laguna	12,403	22.15
	Franklin	1,885	3.37
	SSA Total Demand[d]	14,288	26
	Total	24,807	44

Notes:

a. Demands shown include 7.5% system losses due to leakage and illegal connections to the water system.

b. This demand is taken from the Florin Vineyard Community Plan Water Study attached as Appendix B.

c. The POU Area demand is included in the North Vineyard Station and Florin Vineyard areas.

d. Does not include water demand that may be necessary for RCCC.

SunCreek

	Acreage	Water Demand (gal/yr)	Acreage
Land Uses	**PP**		**ACS**
Low DR	169.44	159587233.4	141.5
Medium DR	322.65	389061049.5	410.9
Compact DR	20.05	24176891.5	18.5
High DR	34.59	46444269.72	12.5
Commercial Mixed Use	31.87	28562690.75	10.9
Local Town Center	59.39	53226802.75	0
Public/Quasi-Public	13.03	4416336.08	7.2
PP- Neighborhood Green	4.3	4848740.2	7.8
Park	87.1	98215179.4	74.2
PC- Parkway, Paseos and Trails	9.1	10261287.4	11.6
WB- Preserve Buffer	45.2		13
DB- Detention Basin	46.9		14.9
Storm Water Canal	5		6.4
Wetland Preserve	203.7		310.2
Elementary School	110.9	37588002.4	108.4
Minor Roads	23.2		0
Major Roads	79		106.5
Total	1265.42	856388483.1	1254.5
		2627.7646	

325900 gallons/AF

Build-out Demand[a]	
Annual Average (AF/year)	Max Day (MGD)
7,624	13.61
3,917	6.99
4,872	8.7
1,077	1.92
15,492	27.66
32,982	58.9
113	0.2
7,321	13.07
1,338	2.39
5,946	10.62
7,264	12.97
4,899	8.75
8,243	14.72
3,971	7.09
10,644	19.01
39,095	69.81

14,289	25.52
17,344	30.97
31,633	56.49
103,710	185.2

Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	
	BIM		**NFA**		**ID**		
133271916.5	166.7	157006561.7	60.5	56981985.5	609.8	574340739.8	
495475547	391.3	471841279	300.6	362472498	173	208608590	
22307855	11.6	13987628	103.1	124321073	0	0	
16783850	6.2	8324789.6	21.3	28599680.4	31.4	42161031.2	
9768852.5	0	0	7.8	6990555	17.7	15863182.5	
0	0	0	0	0	0	0	
2440339.2	4.1	1389637.6	4.8	1626892.8	0	0	
8795389.2	8.3	9359196.2	1	1127614		0	
83668958.8	78.3	88292176.2	33.2	37436784.8	96	108250944	
13080322.4	6.7	7555013.8	0.6	676568.4		0	
	14.6		3.3				
	15.8		14.9				
	0		0.8				
	411.1		578.5		97.4		
36740662.4	52	17624672	29.2	9896931.2	94.4	31995558.4	
	0		0		0		
	87.8		96		135.8		
822333693	1254.5	775380954.1	1255.6	630130583.1	1255.5	981220045.9	
2523.27		2379.199		1933.509		3010.801	12474.54

Residential Waste Disposal Rates

County	Region	Per Capita Disposal Rate tons/res/year
Alameda	Bay Area	0.42
Alpine	Mountain	0.25
Amador	Mountain	0.25
Butte	Central Valley	0.36
Calaveras	Mountain	0.25
Colusa	Central Valley	0.36
Contra Costa	Bay Area	0.42
Del Norte	Coastal	0.44
El Dorado	Mountain	0.25
Fresno	Central Valley	0.36
Glenn	Central Valley	0.36
Humbolt	Coastal	0.44
Imperial	Southern	0.41
Inyo	Mountain	0.25
Kern	Southern	0.41
Kings	Central Valley	0.36
Lake	Central Valley	0.36
Lassen	Mountain	0.25
Los Angeles	Southern	0.41
Madera	Central Valley	0.36
Marin	Bay Area	0.42
Mariposa	Mountain	0.25
Mendocino	Coastal	0.44
Merced	Central Valley	0.36
Modoc	Mountain	0.25
Mono	Mountain	0.25
Monterey	Coastal	0.44
Napa	Bay Area	0.42
Nevada	Mountain	0.25
Orange	Southern	0.41
Placer	Central Valley	0.36
Plumas	Mountain	0.25
Riverside	Southern	0.41

SunCreek

Generation	Haul Distance	
tons/unit-year	2 to 5 miles each way	*assume 10 mile round trip, worst case

Sacramento	**Central Valley**	**0.36**
San Benito	Coastal	0.44
San Bernardino	Southern	0.41
San Diego	Southern	0.41
San Francisco	Bay Area	0.42
San Joaquin	Central Valley	0.36
San Luis Obispo	Southern	0.41
San Mateo	Bay Area	0.42
Santa Barbara	Southern	0.41
Santa Clara	Bay Area	0.42
Santa Cruz	Coastal	0.44
Shasta	Mountain	0.25
Sierra	Mountain	0.25
Siskiyou	Mountain	0.25
Solano	Bay Area	0.42
Sonoma	Coastal	0.44
Stanislaus	Central Valley	0.36
Sutter	Central Valley	0.36
Tehama	Central Valley	0.36
Trinity	Mountain	0.25
Tulare	Central Valley	0.36
Tuolumne	Mountain	0.25
Ventura	Southern	0.41
Yolo	Central Valley	0.36
Yuba	Central Valley	0.36

1.08 *** 3 residents per unit in 2032 from SMUD and PG&E estimates**

Residential waste disposal rates were computed as part of the 1999 Statewide Waste Characterization Study.

Per capita disposal rates were estimated for each of the five regions defined in the study--see the study for an explanation of how the regions were selected.

A single statewide disposal rate for multifamily units (MFU) of 0.46 tons/unit/year was also computed. This rate should be used for all jurisdictions.

Speed Bin	Proposed Project	Agency Conceptual Strategy Alternative
>0	627	375
>5	3,855	1,918
>10	7,492	3,517
>15	52,831	30,668
>20	25,698	12,648
>25	22,062	11,450
>30	52,561	33,689
>35	65,755	38,823
>40	231,307	150,455
>45	72,561	36,361
>50	74,115	42,616
>55	12,513	8,073
>60	1,491	897
>65	0	0
>70	0	0
>75	0	0
Total Daily VMT	**622,868**	**371,489**
Daily Trips	**96,303**	**61,210**

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)
LDA	655,050	303,039
LDT1	138,143	64,395
LDT2	295,310	136,595
MDV	130,495	64,145
Total	**1,218,998**	**568,173**
MT CO2/year		

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)
LDA	655,050	180,738
LDT1	138,143	38,406
LDT2	295,310	81,467
MDV	130,495	38,257
Total	**1,218,998**	**338,868**
MT CO2/year		

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)
LDA	655,050	164,508
LDT1	138,143	34,957
LDT2	295,310	74,152
MDV	130,495	34,822
Total	**1,218,998**	**308,439**
MT CO2/year		

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)
LDA	655,050	177,235
LDT1	138,143	37,662
LDT2	295,310	79,888
MDV	130,495	37,516
Total	**1,218,998**	**332,300**
MT CO2/year		

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)
LDA	655,050	216,321
LDT1	138,143	45,968
LDT2	295,310	97,506
MDV	130,495	45,789
Total	**1,218,998**	**405,584**
MT CO2/year		

Table 1: Daily Project VMT	
Biological Impact Minimization Alternative	**No Federal Action Alternative**
332	403
1,786	1,988
3,257	3,777
26,644	26,349
11,327	13,661
11,081	12,437
32,744	33,363
36,931	40,932
131,196	148,997
34,491	34,646
39,902	38,602
7,437	8,091
1,005	1,044
0	0
0	0
0	0
338,131	**364,289**
45,954	**49,170**

CO2 E

Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)
121.33	38.59
32.45	9.89
70.37	15.61
44.87	9.50
269.02	**73.59**
89078.94922	**24367.4279**

21327 from BGM

difference **-3040.427899**

CO2 En

Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)
72.49	23.05
19.39	5.91
42.04	9.33
26.80	5.68
160.72	**43.96**
53218.78373	**14556.94713**

15613 from BGM

difference **1056.052874**

CO2 Er

Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)
65.65	20.88
17.56	5.35
38.08	8.45
24.29	5.14
145.58	**39.83**
48205.64831	**13188.2287**

12746 from BGM

difference **-442.2287042**

CO2 Em

Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)
70.72	22.50
18.92	5.76
41.02	9.10
26.16	5.54
156.82	**42.90**
51926.7304	**14206.34129**

12797 from BGM

difference **-1409.341292**

CO2 E

Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)
86.75	27.59
23.20	7.07
50.31	11.16
32.08	6.79
192.34	**52.61**
63687.19256	**17420.47671**

18768 from BGM

difference **1347.52329**

Increased Development Alternative	**2032 CO2 EFs (g/mile)**
453	375.755
2,414	1187.613
4,457	904.375
33,864	715.262
17,461	587.907
13,760	504.617
42,271	448.602
48,934	412.508
175,938	391.98
43,574	384.71
50,344	389.965
9,805	408.438
1,353	442.388
0	496.114
0	
0	
444,627	**EMFAC**
72,878	**URBEMIS**

mission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (S

Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
82.74	10.00%
22.56	10.00%
54.76	10.00%
35.37	10.00%
195.43	**10.00%**

nission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (Su

Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
49.44	10.00%
13.48	10.00%
32.72	10.00%
21.13	10.00%
116.76	**10.00%**

nission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (Su

Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
44.77	10.00%
12.21	10.00%
29.63	10.00%
19.14	10.00%
105.75	**10.00%**

nission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (Su

Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
48.23	10.00%
13.15	10.00%
31.92	10.00%
20.62	10.00%
113.92	**10.00%**

:mission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (S

Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
59.16	10.00%
16.13	10.00%
39.15	10.00%
25.28	10.00%
139.73	**10.00%**

Table 2: Annual CO2e Emissions (MT CO2)	
Proposed Project	**Agency Conceptual Strategy Alternative**
85.99341053	51.43146563
1,671	831
2,473	1,161
13,793	8,007
5,514	2,714
4,063	2,109
8,606	5,516
9,900	5,845
33,094	21,526
10,189	5,106
10,549	6,066
1,865	1,204
241	144.8400431
0	0
102,046	**60,281**
94,243	**68,990**

unCreek SP- PP)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
8.27	74.47
2.26	20.31
5.48	49.29
3.54	31.83
19.54	**175.89**
6471.152132	**58240.36919**

5528 from BGM

-943.1521322

unCreek SP- ACS)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
4.94	44.49
1.35	12.13
3.27	29.45
2.11	19.01
11.68	**105.08**
3866.183661	**34795.65295**
4047 from BGM	

180.8163392

unCreek SP- BIM)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
4.48	40.29
1.22	10.99
2.96	26.67
1.91	17.23
10.58	**95.18**
3501.74196	**31515.67764**
3304 from BGM	

-197.7419603

unCreek SP- NFA)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
4.82	43.40
1.32	11.84
3.19	28.73
2.06	18.56
11.39	**102.53**
3772.03891	**33948.35019**
3317 from BGM	

-455.0389104

SunCreek SP- ID)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
5.92	53.24
1.61	14.52
3.92	35.24
2.53	22.75
13.97	**125.75**
4626.671585	**41640.04427**
4865 from BGM	

238.3284149

Biological Impact Minimization Alternative	No Federal Action Alternative	Increased Development Alternative	
45.5339909	55.2716817	62.1292105	
774	862	1,046	
1,075	1,247	1,471	
6,956	6,879	8,841	
2,431	2,931	3,747	
2,041	2,291	2,534	
5,361	5,463	6,921	
5,561	6,163	7,368	
18,771	21,317	25,172	
4,843	4,865	6,119	
5,680	5,495	7,166	
1,109	1,206	1,462	
162	169	218	
0	0	0	
54,809	**58,942**	**72,128**	running
56,325	**56,549**	**82,935**	running and start

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.02
0.01
0.02
0.01
0.06
55368.22553

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.01
0.00
0.01
0.01
0.03
33079.69346

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.01
0.00
0.01
0.01
0.03
29961.47125

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.01
0.00
0.01
0.01
0.03
32274.17573

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.02
0.00
0.01
0.01
0.04
39586.55128

Annual GHG Emissions

PP

Construction	**tons CO2**	**MT CO2e**	**SVAB Adjusted Fleet MT CO2e/year**	
Annual (2012)	1575	1,428.82		
Cumulative (2012-2032) = 2012 * (6.667/0.56)	18,749.98	17,009.70		
Annual Area/Operational				
Transportation:		71,253.28	67,269.70	0.613622
Area Source:		33.08	33.08	
Electricity:		23,883.04	23,883.04	
Natural Gas:		10,101.94	10,101.94	
Water & Wastewater:		1,461.03	1,461.03	
Solid Waste:		6,878.50	6,878.50	
Agriculture:		0.00	0.00	
Off-Road Equipment:		0.00	0.00	
Refrigerants:		0.00	0.00	
Sequestration:		N/A	N/A	
Purchase of Offsets:		N/A	N/A	
Total:		113,610.87	**109,627.29**	
Lifetime of Project	40 years			
Population of Project	12,589			
Service Population of Project	15,443			
Cumulative Emissions (construction and operational)			**4,402,101.19**	
Annual Operational Emissions per Capita			**8.708180726**	
Annual Operational Emissions per SP			**7.098833592**	
Cumulative Emissions (construction and operational) per Capita			349.678385	
Cumulative Emissions (construction and operational) per SP			285.0547943	

Alternative	Population
No USACE Permit	11685
Proposed Project	12589
Bio Impact Minimization	11349
Agency Conceptual Strategy	12260
Increased Development	14469

Total Employment by Alternative

No Project	0
Proposed Project	2854
Agency Conceptual	480
Biological Impact	196
No Federal Action	299
Increased Development	609

These totals include education employment (not provided in the previous total for the proposed project).

ACS

Construction	tons CO2	MT CO2e	SVAB Adjusted Fleet MT CO2e/year	
Annual (2012)	1284	1,164.83		
Cumulative (2012-2032) = 2012 * (6.667/0.56)	15,285.70	13,866.96		
Annual Area/Operational				
Transportation:		52,160.69	53,397.56	0.617561
Area Source:		32.62	32.62	
Electricity:		17,952.44	17,952.44	
Natural Gas:		9,770.12	9,770.12	
Water & Wastewater:		1,402.80	1,402.80	
Solid Waste:		3,909.69	3,909.69	
Agriculture:		0.00	0.00	
Off-Road Equipment:		0.00	0.00	
Refrigerants:		0.00	0.00	
Sequestration:		N/A	N/A	
Purchase of Offsets:		N/A	N/A	
Total:		85,228.36	**86,465.23**	
Lifetime of Project	40 years			
Population of Project	12,260			
Service Population of Project	12,740			
Cumulative Emissions (construction and operational)			**3,472,476.26**	
Annual Operational Emissions per Capita			**7.052629082**	
Annual Operational Emissions per SP			**6.786909933**	
Cumulative Emissions (construction and operational) per Capita			283.2362364	
Cumulative Emissions (construction and operational) per SP			272.5648555	

BIM

Construction	tons CO2	MT CO2e	SVAB Adjusted Fleet MT CO2e/year
Annual (2012)	1207	1,094.97	
Cumulative (2012-2032) = 2012 * (6.667/0.56)	14,369.03	13,035.37	
Annual Area/Operational			
Transportation:		42,584.87	41,944.90
Area Source:		31.95	31.95
Electricity:		15,450.26	15,450.26
Natural Gas:		8,930.55	8,930.55
Water & Wastewater:		1,322.71	1,322.71
Solid Waste:		3,273.00	3,273.00
Agriculture:		0.00	0.00
Off-Road Equipment:		0.00	0.00
Refrigerants:		0.00	0.00
Sequestration:		N/A	N/A
Purchase of Offsets:		N/A	N/A
Total:		71,593.34	**70,953.36**
Lifetime of Project	40 years		
Population of Project	11,349		
Service Population of Project	11,545		
Cumulative Emissions (construction and operational)			**2,851,169.96**
Annual Operational Emissions per Capita			**6.251948598**
Annual Operational Emissions per SP			**6.145808977**
Cumulative Emissions (construction and operational) per Capita			251.226536
Cumulative Emissions (construction and operational) per SP			246.9614514

NFA

		Construction
		Annual (2012)
		Cumulative (2012-2032) = 2012 * (6.667/0.56)
		Annual Area/Operational
Transportation:	0.591161	
Area Source:		
Electricity:		
Natural Gas:		
Water & Wastewater:		
Solid Waste:		
Agriculture:		
Off-Road Equipment:		
Refrigerants:		
Sequestration:		
Purchase of Offsets:		
Total:		
Lifetime of Project		
Population of Project		
Service Population of Project		
Cumulative Emissions (construction and operational)		
Annual Operational Emissions per Capita		
Annual Operational Emissions per SP		
Cumulative Emissions (construction and operational) per Capita		
Cumulative Emissions (construction and operational) per SP		

tons CO2	MT CO2e	SVAB Adjusted Fleet MT CO2e/year		ID	tons CO2	MT CO2e	SVAB Adjusted Fleet MT CO2e/year	
1075	975.22			Construction: Annual (2012)	1722	1,562.17		
12,797.61	11,609.80			Construction: Cumulative (2012-2032) = 2012 * (6.667/0.56)	20,499.98	18,597.27		
				Annual Area/Operational				
	42,754.25	40,889.87	0.563434	Transportation:		62,703.91	64,289.76	0.617288
	28.83	28.83		Area Source:		60.46	60.46	
	17,166.84	17,166.84		Electricity:		21,690.37	21,690.37	
	9,740.86	9,740.86		Natural Gas:		11,737.67	11,737.67	
	1,074.93	1,074.93		Water & Wastewater:		1,673.84	1,673.84	
	3,671.22	3,671.22		Solid Waste:		4,696.65	4,696.65	
	0.00	0.00		Agriculture:		0.00	0.00	
	0.00	0.00		Off-Road Equipment:		0.00	0.00	
	0.00	0.00		Refrigerants:		0.00	0.00	
	N/A	N/A		Sequestration:		N/A	N/A	
	N/A	N/A		Purchase of Offsets:		N/A	N/A	
	74,436.92	**72,572.54**		Total:		102,562.91	**104,148.76**	
40 years				Lifetime of Project	40 years			
11,685				Population of Project	14,469			
11,984				Service Population of Project	15,078			
		2,914,511.53		**Cumulative Emissions (construction and operational)**			**4,184,547.62**	
		6.210743971		Annual Operational Emissions per Capita			**7.198061975**	
		6.055786324		Annual Operational Emissions per SP			**6.907332452**	
		249.4233229		Cumulative Emissions (construction and operational) per Capita			289.2077975	
		243.2002277		Cumulative Emissions (construction and operational) per SP			277.5267026	

109627	86465	70953	72573	104149
4402101	3472476	2851170	2914512	4184548
12,589	12,260	11,349	11,685	14,469
2854	480	196	299	609
15443	12740	11545	11984	15078
7.098834	6.78691	6.145809	6.055786	6.907332

PP

Unmitigated Construction Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	58	47	52	0	157	35	4	1,429
Summer								
2032	194	141	163	0	435	97	13	4,461
Winter								
2032	194	141	163	0	435	97	13	4,461

Unmitigated Operational (Area) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	270	68	63	0	0	0	42	14,000
Summer								
2032	274	68	91	0	0	0	42	13,992
Winter								
2032	267	96	48	0	2	2	60	19,992

Unmitigated Operational (Mobile) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	291	185	2,402	6	959	183	285	94,243
Summer								
2032	308	159	2,510	6	959	183	305	100,956
Winter								
2032	256	239	2,186	5	959	183	244	80,817

Unmitigated Operational (Total) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	561	253	2,465	6	959	183	327	108,244
Summer								
2032	582	227	2,601	6	959	183	347	114,948
Winter								
2032	523	334	2,233	5	961	185	304	100,808

ACS

Total Trips F&P	Total VMT F&P	Unmitigated Construction Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
		2032	52	36	43	0	144
		Summer					
		2032	172	110	139	0	398
		Winter					
		2032	172	110	139	0	398

Total Trips F&P	Total VMT F&P	Unmitigated Operational (Area) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
35,150,595	227,346,820	2032	264	56	52	0	0
		Summer					
96,303	622,868	2032	268	57	78	0	0
		Winter					
96,303	622,868	2032	261	85	38	0	2

Total Trips F&P	Total VMT F&P	Unmitigated Operational (Mobile) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
35,150,595	227,346,820	2032	214	133	1,749	4	701
		Summer					
96,303	622,868	2032	231	114	1,835	4	701
		Winter					
96,303	622,868	2032	179	172	1,577	4	701

Total Trips F&P	Total VMT F&P	Unmitigated Operational (Total) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
35,150,595	227,346,820	2032	477	190	1,801	4	702
		Summer					
96,303	622,868	2032	499	170	1,913	4	702
		Winter					
96,303	622,868	2032	440	257	1,615	4	704

BIM

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P	Unmitigated Construction Emissions Estimates	ROG lbs/day	NOx lbs/day
					Annual		
32	4	1,164			2032	47	35
					Summer		
88	11	3,690			2032	157	107
					Winter		
88	11	3,690			2032	157	107

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P	Unmitigated Operational (Area) Emissions Estimates	ROG lbs/day	NOx lbs/day
					Annual		
0	36	11,810	22,341,650	135,593,485	2032	247	51
					Summer		
0	36	11,801	61,210	371,489	2032	252	51
					Winter		
2	54	17,818	61,210	371,489	2032	245	78

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P	Unmitigated Operational (Mobile) Emissions Estimates	ROG lbs/day	NOx lbs/day
					Annual		
134	208	68,990	22,341,650	135,593,485	2032	166	108
					Summer		
134	223	73,901	61,210	371,489	2032	179	92
					Winter		
134	179	59,169	61,210	371,489	2032	141	139

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P	Unmitigated Operational (Total) Emissions Estimates	ROG lbs/day	NOx lbs/day
					Annual		
134	244	80,800	22,341,650	135,593,485	2032	414	159
					Summer		
134	259	85,702	61,210	371,489	2032	431	143
					Winter		
136	233	76,987	61,210	371,489	2032	386	217

CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
41	0	128	28	3	1,095		
130	0	355	79	10	3,458		
130	0	355	79	10	3,458		

CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
50	0	0	0	32	11,810	16,773,210	123,417,815
78	0	0	0	32	10,716	45,954	338,131
34	0	2	2	50	16,474	45,954	338,131

CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
1,424	3	572	109	170	11,810	16,773,210	123,417,815
1,497	4	572	109	182	60,333	45,954	338,131
1,277	3	572	109	146	48,309	45,954	338,131

CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
1,474	3	573	109	202	23,620	16,773,210	123,417,815
1,575	4	573	109	215	71,049	45,954	338,131
1,311	3	575	111	196	64,784	45,954	338,131

NFA

Unmitigated Construction Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	46	31	36	0	104	23	3	976
Summer								
2032	153	94	114	0	289	64	9	3,093
Winter								
2032	153	94	114	0	289	64	9	3,093

Unmitigated Operational (Area) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	263	51	36	0	0	0	33	10,785
Summer								
2032	265	51	50	0	0	0	33	10,772
Winter								
2032	263	79	35	0	2	2	50	16,683

Unmitigated Operational (Mobile) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	166	109	1,435	3	575	109	171	56,549
Summer								
2032	177	93	1,506	4	575	109	183	60,572
Winter								
2032	145	141	1,292	3	575	109	146	48,503

Unmitigated Operational (Total) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day	CO2 tons/day	CO2 MT/year
Annual								
2032	429	160	1,471	3	575	110	203	67,333
Summer								
2032	442	144	1,556	4	575	110	215	71,344
Winter								
2032	407	220	1,326	3	577	112	197	65,186

ID

Total Trips F&P	Total VMT F&P	Unmitigated Construction Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
		2032	80	49	57	0	179
		Summer					
		2032	157	107	130	0	355
		Winter					
		2032	157	107	130	0	355

Total Trips F&P	Total VMT F&P	Unmitigated Operational (Area) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
17,947,050	132,965,485	2032	247	51	50	0	0
		Summer					
49,170	364,289	2032	252	51	78	0	0
		Winter					
49,170	364,289	2032	245	78	34	0	2

Total Trips F&P	Total VMT F&P	Unmitigated Operational (Mobile) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
17,947,050	132,965,485	2032	166	108	1,424	3	572
		Summer					
49,170	364,289	2032	179	92	1,497	4	572
		Winter					
49,170	364,289	2032	141	139	1,277	3	572

Total Trips F&P	Total VMT F&P	Unmitigated Operational (Total) Emissions Estimates	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day
		Annual					
17,947,050	132,965,485	2032	414	159	1,474	3	573
		Summer					
49,170	364,289	2032	431	143	1,575	4	573
		Winter					
49,170	364,289	2032	386	217	1,311	3	575

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
39	4.72	1,562.46		
79	10.44	3,458		
79	10.44	3,458		

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
0	32	10,724	26,600,470	162,288,855
0	32	10,716	72,878	444,627
2	50	16,474	72,878	444,627

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
109	170	56,325	26,600,470	162,288,855
109	182	60,333	72,878	444,627
109	146	48,309	72,878	444,627

PM2.5 lbs/day	CO2 tons/day	CO2 MT/year	Total Trips F&P	Total VMT F&P
109	202	67,049	26,600,470	162,288,855
109	215	71,049	72,878	444,627
111	196	64,784	72,878	444,627

Table 1: Daily Pro

Speed Bin	Proposed Project	Agency Conceptual Strategy Alternative	Biological Impact Minimization Alternative
>0	627	375	332
>5	3,855	1,918	1,786
>10	7,492	3,517	3,257
>15	52,831	30,668	26,644
>20	25,698	12,648	11,327
>25	22,062	11,450	11,081
>30	52,561	33,689	32,744
>35	65,755	38,823	36,931
>40	231,307	150,455	131,196
>45	72,561	36,361	34,491
>50	74,115	42,616	39,902
>55	12,513	8,073	7,437
>60	1,491	897	1,005
>65	0	0	0
>70	0	0	0
>75	0	0	0
Total Daily VMT	**622,868**	**371,489**	**338,131**
Daily Trips	**96,303**	**61,210**	**45,954**

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)
LDA	655,050	303,039	121.33
LDT1	138,143	64,395	32.45
LDT2	295,310	136,595	70.37
MDV	130,495	64,145	44.87
Total	**1,218,998**	**568,173**	**269.02**
MT CO2/year			**89078.94922**

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)
LDA	655,050	180,738	72.49
LDT1	138,143	38,406	19.39
LDT2	295,310	81,467	42.04
MDV	130,495	38,257	26.80
Total	**1,218,998**	**338,868**	**160.72**
MT CO2/year			**53218.78373**

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)
LDA	655,050	164,508	65.65
LDT1	138,143	34,957	17.56
LDT2	295,310	74,152	38.08
MDV	130,495	34,822	24.29
Total	**1,218,998**	**308,439**	**145.58**
MT CO2/year			**48205.64831**

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)
LDA	655,050	177,235	70.72
LDT1	138,143	37,662	18.92
LDT2	295,310	79,888	41.02
MDV	130,495	37,516	26.16
Total	**1,218,998**	**332,300**	**156.82**
MT CO2/year			**51926.7304**

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)
LDA	655,050	216,321	86.75
LDT1	138,143	45,968	23.20
LDT2	295,310	97,506	50.31
MDV	130,495	45,789	32.08
Total	**1,218,998**	**405,584**	**192.34**
MT CO2/year			**63687.19256**

ject VMT		
No Federal Action Alternative	**Increased Development Alternative**	**2032 CO2 EFs (g/mile)**
403	453	375.755
1,988	2,414	1187.613
3,777	4,457	904.375
26,349	33,864	715.262
13,661	17,461	587.907
12,437	13,760	504.617
33,363	42,271	448.602
40,932	48,934	412.508
148,997	175,938	391.98
34,646	43,574	384.71
38,602	50,344	389.965
8,091	9,805	408.438
1,044	1,353	442.388
0	0	496.114
0	0	
0	0	
364,289	**444,627**	**EMFAC**
49,170	**72,878**	**URBEMIS**

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (S

Weekday CO2 Emission Reduction from Pavley I (tons/day)	**Weekday CO2 Emissions after adopting Pavley I (tons/day)**	**% CO2 Emission Reduction from LCFS**
38.59	82.74	10.00%
9.89	22.56	10.00%
15.61	54.76	10.00%
9.50	35.37	10.00%
73.59	**195.43**	**10.00%**
24367.4279		

23610 from BGM

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (Su

Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
23.05	49.44	10.00%
5.91	13.48	10.00%
9.33	32.72	10.00%
5.68	21.13	10.00%
43.96	**116.76**	**10.00%**
14556.94713		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (Su

Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
20.88	44.77	10.00%
5.35	12.21	10.00%
8.45	29.63	10.00%
5.14	19.14	10.00%
39.83	**105.75**	**10.00%**
13188.2287		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (Su

Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
22.50	48.23	10.00%
5.76	13.15	10.00%
9.10	31.92	10.00%
5.54	20.62	10.00%
42.90	**113.92**	**10.00%**
14206.34129		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (S

Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS
27.59	59.16	10.00%
7.07	16.13	10.00%
11.16	39.15	10.00%
6.79	25.28	10.00%
52.61	**139.73**	**10.00%**
17420.47671		

Table 2: Annual CO2e Emissions (MT CO2)

Proposed Project	Agency Conceptual Strategy Alternative
85.99341053	51.43146563
1,671	831
2,473	1,161
13,793	8,007
5,514	2,714
4,063	2,109
8,606	5,516
9,900	5,845
33,094	21,526
10,189	5,106
10,549	6,066
1,865	1,204
241	144.8400431
0	0
102,046	**60,281**
104,328	**74,151**

unCreek SP- PP)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
8.27	74.47
2.26	20.31
5.48	49.29
3.54	31.83
19.54	**175.89**
6471.152132	**58240.36919**

6120 from BGM

ınCreek SP- ACS)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
4.94	44.49
1.35	12.13
3.27	29.45
2.11	19.01
11.68	**105.08**
3866.183661	**34795.65295**

ınCreek SP- BIM)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
4.48	40.29
1.22	10.99
2.96	26.67
1.91	17.23
10.58	**95.18**
3501.74196	**31515.67764**

ınCreek SP- NFA)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
4.82	43.40
1.32	11.84
3.19	28.73
2.06	18.56
11.39	**102.53**
3772.03891	**33948.35019**

unCreek SP- ID)

Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)
5.92	53.24
1.61	14.52
3.92	35.24
2.53	22.75
13.97	**125.75**
4626.671585	**41640.04427**

Biological Impact Minimization Alternative	No Federal Action Alternative	Increased Development Alternative	
45.5339909	55.27168173	62.12921048	
774	862	1,046	
1,075	1,247	1,471	
6,956	6,879	8,841	
2,431	2,931	3,747	
2,041	2,291	2,534	
5,361	5,463	6,921	
5,561	6,163	7,368	
18,771	21,317	25,172	
4,843	4,865	6,119	
5,680	5,495	7,166	
1,109	1,206	1,462	
162	169	218	
0	0	0	
54,809	**58,942**	**72,128**	running
56,899	**60,507**	**88,534**	running and start

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.02
0.01
0.02
0.01
0.06
55368.22553

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.01
0.00
0.01
0.01
0.03
33079.69346

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.01
0.00
0.01
0.01
0.03
29961.47125

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.01
0.00
0.01
0.01
0.03
32274.17573

Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
0.02
0.00
0.01
0.01
0.04
39586.55128

Title : SunCreek SP- ACS
Version : Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **
Run Date : 2010/07/29 16:08:29
Scen Year: 2032 -- All model years in the range 1988 to 2032 selected
Season : Annual
Area : Sacramento County
I/M Stat : Enhanced Interim (2005)
Emissions: Tons Per Day

****

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT
Vehicles	0	654991	59	655050	0	137290	853	138143	0	295266	44	295310	0
VMT/1000	0	181	0	181	0	38	0	38	0	81	0	81	0
Trips	0	26552	2	26554	0	5488	25	5513	0	11757	1	11759	0
Reactive Organic Gas Emissions													
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0	0
Diurnal	0	0.14	0	0.14	0	0.04	0	0.04	0	0.16	0	0.16	0
Hot Soak	0	0	0	0	0	0	0	0	0	0	0	0	0
Running	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0
Resting	0	0.11	0	0.11	0	0.03	0	0.03	0	0.14	0	0.14	0
Total	0	0.26	0	0.26	0	0.07	0	0.07	0	0.31	0	0.31	0
Carbon Monoxide Emissions													
Run Exh	0	0.1	0	0.1	0	0.02	0	0.02	0	0.09	0	0.09	0

Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.03	0	0.03	0	0.01	0	0.01	0	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0
Total Ex	0	0.13	0	0.13	0	0.03	0	0.03	0	0.11	0	0.11	0	0.11	0	0.11	0	0.11	0	0
Oxides of Nitrogen Emissions																				
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0
Carbon Dioxide Emissions (000)																				
Run Exh	0	0.07	0	0.07	0	0.02	0	0.02	0	0.04	0	0.04	0	0.04	0	0.04	0	0.04	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.07	0	0.07	0	0.02	0	0.02	0	0.04	0	0.04	0	0.04	0	0.04	0	0.04	0	0
PM10 Emissions																				
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TireWear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BrakeWr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Consumption (000 gallons)																				
Gasoline	0	7.44	0	7.44	0	1.99	0	1.99	0	4.32	0	4.32	0	4.32	0	4.32	0	4.32	0	0
Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NCA	LHDT1-CAT	LHDT1-DSL	LHDT1-TOT	LHDT2-NCA	LHDT2-CAT	LHDT2-DSL	LHDT2-TOT	MHDT-NCA	MHDT-CAT
130416	79	130495	0	21368	5371	26740	0	6280	4700	10980	0	4252
38	0	38	0	7	2	9	0	2	1	3	0	1
5166	2	5168	0	4635	443	5078	0	1362	388	1750	0	1274
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0.08	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0.07	0	0.07	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---
0.15	0	0.15	0	0.01	0	0.01	0	0	0	0	0	0
0.06	0	0.06	0	0	0	0.01	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0.01
0.07	0	0.07	0	0.02	0	0.02	0	0	0	0.01	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0.01	0	0.01	0	0	0	0	0	0
0.01	0	0.01	0	0.01	0	0.01	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2.76	0	2.76	0	0.78	0	0.78	0	0.23	0	0.23	0	0.12
0	0	0	0	0	0.09	0.09	0	0	0.08	0.08	0	0

MHDT-DSL	MHDT-TOT	HHDT-NCA	HHDT-CAT	HHDT-DSL	HHDT-TOT	OBUS-NCA	OBUS-CAT	OBUS-DSL	OBUS-TOT	SBUS-NCAT	SBUS-CAT	SBUS-DSL	SBUS-TOT	UB-NCAT
16138	20390	0	141	4823	4965	0	356	1108	1464	0	104	911	1015	0
7	8	0	0	7	7	0	0	0	1	0	0	0	0	0
2968	4242	0	42	160	202	0	107	204	311	0	3	24	27	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0.01	0	0	0.01	0.01	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      0.01         0         0         0         0         0         0         0         0         0         0         0         0         0
 -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
      0.01      0.02         0         0      0.01      0.02         0         0         0         0         0         0         0         0         0

      0.01      0.01         0         0      0.02      0.02         0         0         0         0         0         0         0         0         0
         0         0         0         0      0.01      0.01         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
 -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
      0.01      0.01         0         0      0.03      0.03         0         0         0         0         0         0         0         0         0

      0.01      0.01         0         0      0.01      0.01         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
 -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
      0.01      0.01         0         0      0.01      0.01         0         0         0         0         0         0         0         0         0

         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
 -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0

         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
 -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         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      0.12         0      0.01         0      0.01         0      0.01         0      0.01         0         0         0         0         0
      1.02      1.02         0         0      1.31      1.31         0         0      0.07      0.07         0         0      0.05      0.05         0
```

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
206	235	441	0	9497	1030	10527	14946	29919	0	44865	1340380
0	0	0	0	1	0	1	1	2	0	3	371
5	6	12	0	6	1	7	196	392	0	589	61210
0	0	0	0	0	0	0	0	0	0	0.01	0.02
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0.01	0.02
0	0	0	0	0	0	0	0	0.1	0	0.1	0.52
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0.05	0	0.05	0.39
0	0	0	0	0	0	0	0	0.15	0	0.15	0.96
0	0	0	0	0	0	0	0.05	0.02	0	0.07	0.37

0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0.01	0	0.01	0.12
0	0	0	0	0	0	0	0.05	0.02	0	0.08	0.49
0	0	0	0	0	0	0	0	0	0	0	0.06
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.09
0	0	0	0	0	0	0	0	0	0	0	0.2
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.2
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0.08	0	0.08	0.02	0.05	0	0.07	17.82
0	0.05	0.05	0	0	0.02	0.02	0	0	0	0	2.68

Title : SunCreek SP- BIM
Version : Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **
Run Date : 2010/07/29 16:15:40
Scen Year: 2032 -- All model years in the range 1988 to 2032 selected
Season : Annual
Area : Sacramento County
I/M Stat : Enhanced Interim (2005)
Emissions: Tons Per Day

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	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	LDT2-CAT	LDT2-DSL
Vehicles	0	654991	59	655050	0	137290	853	138143	0	295266	44
VMT/1000	0	165	0	165	0	35	0	35	0	74	0
Trips	0	19934	1	19935	0	4120	19	4139	0	8827	1
Reactive Organic Gas Emissions											
Run Exh	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0	0
Diurnal	0	0.14	0	0.14	0	0.04	0	0.04	0	0.16	0
Hot Soak	0	0	0	0	0	0	0	0	0	0	0
Running	0	0	0	0	0	0	0	0	0	0.01	0
Resting	0	0.11	0	0.11	0	0.03	0	0.03	0	0.14	0
Total	0	0.26	0	0.26	0	0.07	0	0.07	0	0.31	0

Carbon Monoxide Emissions												
Run Exh	0	0.09	0	0.09	0	0.02	0	0.02	0	0.08	0	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	
Start Ex	0	0.02	0	0.02	0	0.01	0	0.01	0	0.02	0	
Total Ex	0	0.11	0	0.11	0	0.03	0	0.03	0	0.1	0	
Oxides of Nitrogen Emissions												
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.01	0	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	
Start Ex	0	0	0	0	0	0	0	0	0	0	0	
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.01	0	
Carbon Dioxide Emissions (000)												
Run Exh	0	0.06	0	0.06	0	0.02	0	0.02	0	0.04	0	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	
Start Ex	0	0	0	0	0	0	0	0	0	0	0	
Total Ex	0	0.07	0	0.07	0	0.02	0	0.02	0	0.04	0	
PM10 Emissions												
Run Exh	0	0	0	0	0	0	0	0	0	0	0	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	
Start Ex	0	0	0	0	0	0	0	0	0	0	0	
Total Ex	0	0	0	0	0	0	0	0	0	0	0	
TireWear	0	0	0	0	0	0	0	0	0	0	0	
BrakeWr	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0.01	0	0.01	0	0	0	0	0	0	0	
Lead	0	0	0	0	0	0	0	0	0	0	0	
SOx	0	0	0	0	0	0	0	0	0	0	0	
Fuel Consumption (000 gallons)												
Gasoline	0	6.74	0	6.74	0	1.8	0	1.8	0	3.92	0	
Diesel	0	0	0	0	0	0	0	0	0	0	0	

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LDT2-TOT	MDV-NCAT	MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NCA	LHDT1-CAT	LHDT1-DSL	LHDT1-TOT	LHDT2-NCA	LHDT2-CAT	LHDT2-DSL	LHDT2-TOT	MHDT-NCA	MHDT-CAT
295310	0	130416	79	130495	0	21368	5371	26740	0	6280	4700	10980	0	4252
74	0	35	0	35	0	6	2	8	0	2	1	3	0	1
8828	0	3878	2	3880	0	3480	333	3812	0	1023	291	1314	0	956
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0.08	0	0.08	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
0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.14	0	0.07	0	0.07	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0.31	0	0.15	0	0.15	0	0	0	0.01	0	0	0	0	0	0

0.08	0	0.05	0	0.05	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.01	0	0.01	0	0.01	0	0.01	0	0	0	0	0	0	0.01
0.1	0	0.06	0	0.06	0	0.01	0	0.02	0	0	0	0	0	0	0.01
0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0	0	0	0	0	0
0.04	0	0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.92	0	2.5	0	2.5	0	0.7	0	0.7	0	0.21	0	0.21	0	0.11	
0	0	0	0	0	0	0	0.08	0.08	0	0	0.07	0.07	0	0	

MHDT-DSL	MHDT-TOT	HHDT-NCA	HHDT-CAT	HHDT-DSL	HHDT-TOT	OBUS-NCA	OBUS-CAT	OBUS-DSL	OBUS-TOT	SBUS-NCAT	SBUS-CAT	SBUS-DSL	SBUS-TOT	UB-NCAT
16138	20390	0	141	4823	4965	0	356	1108	1464	0	104	911	1015	0
6	8	0	0	6	6	0	0	0	1	0	0	0	0	0
2228	3185	0	32	120	152	0	80	153	233	0	2	18	20	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
            0.01            0.01               0               0            0.01            0.01               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            0.01               0               0               0               0               0               0               0               0               0               0               0               0               0
 -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------
            0.01            0.02               0               0            0.01            0.01               0               0               0               0               0               0               0               0               0

            0.01            0.01               0               0            0.02            0.02               0               0               0               0               0               0               0               0               0
               0               0               0               0            0.01            0.01               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
 -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------
            0.01            0.01               0               0            0.02            0.02               0               0               0               0               0               0               0               0               0

            0.01            0.01               0               0            0.01            0.01               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
 -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------
            0.01            0.01               0               0            0.01            0.01               0               0               0               0               0               0               0               0               0

               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
 -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0

               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
 -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------         -------
               0               0               0               0               0               0               0               0               0               0               0               0               0               0               0
               0               0               0               0               0               0               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            0.11               0            0.01               0            0.01               0            0.01               0            0.01               0               0               0               0               0
            0.92            0.92               0               0            1.18            1.18               0               0            0.07            0.07               0               0            0.04            0.04               0
```

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
206	235	441	0	9497	1030	10527	14946	29919	0	44865	1340380
0	0	0	0	1	0	1	1	2	0	3	338
4	5	9	0	5	1	5	147	295	0	442	45954
0	0	0	0	0	0	0	0	0	0	0.01	0.01
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0.01	0.02
0	0	0	0	0	0	0	0	0.1	0	0.1	0.52
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0.05	0	0.05	0.39
0	0	0	0	0	0	0	0	0.15	0	0.15	0.95

0	0	0	0	0	0	0	0.05	0.02	0	0.06	0.34
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0.01	0.09
0	0	0	0	0	0	0	0.05	0.02	0	0.07	0.43
0	0	0	0	0	0	0	0	0	0	0	0.06
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.08
0	0	0	0	0	0	0	0	0	0	0	0.18
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.18
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0.07	0	0.07	0.02	0.04	0	0.06	16.14
0	0.05	0.05	0	0	0.01	0.01	0	0	0	0	2.43

Title : SunCreek SP- ID
Version : Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **
Run Date : 2010/07/29 16:31:26
Scen Year: 2032 -- All model years in the range 1988 to 2032 selected
Season : Annual
Area : Sacramento County
I/M Stat : Enhanced Interim (2005)
Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	LDT2-CAT	LDT2-DSL	LDT2-TOT
Vehicles	0	654991	59	655050	0	137290	853	138143	0	295266	44	295310
VMT/1000	0	216	0	216	0	46	0	46	0	97	0	98
Trips	0	31613	2	31615	0	6534	30	6563	0	13998	1	14000
Reactive Organic Gas Emissions												
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0
Diurnal	0	0.14	0	0.14	0	0.04	0	0.04	0	0.16	0	0.16
Hot Soak	0	0	0	0	0	0	0	0	0	0	0	0
Running	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01
Resting	0	0.11	0	0.11	0	0.03	0	0.03	0	0.14	0	0.14
Total	0	0.27	0	0.27	0	0.07	0	0.07	0	0.31	0	0.31
Carbon Monoxide Emissions												
Run Exh	0	0.12	0	0.12	0	0.03	0	0.03	0	0.1	0	0.1
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.03	0	0.03	0	0.01	0	0.01	0	0.03	0	0.03

Total Ex	0	0.15	0	0.15	0	0.04	0	0.04	0	0.13	0	0.13
Oxides of Nitrogen Emissions												
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01
Carbon Dioxide Emissions (000)												
Run Exh	0	0.08	0	0.08	0	0.02	0	0.02	0	0.05	0	0.05
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.09	0	0.09	0	0.02	0	0.02	0	0.05	0	0.05
PM10 Emissions												
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0
TireWear	0	0	0	0	0	0	0	0	0	0	0	0
BrakeWr	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01
Lead	0	0	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Consumption (000 gallons)												
Gasoline	0	8.91	0	8.91	0	2.38	0	2.38	0	5.17	0	5.17
Diesel	0	0	0	0	0	0	0	0	0	0	0	0

****

MDV-NCAT	MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NCA	LHDT1-CAT	LHDT1-DSL	LHDT1-TOT	LHDT2-NCA	LHDT2-CAT	LHDT2-DSL	LHDT2-TOT	MHDT-NCA	MHDT-CAT
0	130416	79	130495	0	21368	5371	26740	0	6280	4700	10980	0	4252
0	46	0	46	0	8	2	10	0	2	2	4	0	2
0	6151	3	6154	0	5518	528	6046	0	1622	462	2084	0	1517
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.08	0	0.08	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.07	0	0.07	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0.15	0	0.15	0	0.01	0	0.01	0	0	0	0	0	0
0	0.07	0	0.07	0	0	0	0.01	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.02	0	0.02	0	0.02	0	0.02	0	0	0	0	0	0.01

0	0.09	0	0.09	0	0.02	0	0.02	0	0.01	0	0.01	0	0.01		
0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0.01	0	0.01	0	0	0	0	0	0		
0	0.01	0	0.01	0	0.01	0	0.01	0	0	0	0	0	0		
0	0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	3.3	0	3.3	0	0.93	0	0.93	0	0.27	0	0.27	0	0.15		
0	0	0	0	0	0	0.1	0.1	0	0	0.09	0.09	0	0		

MHDT-DSL	MHDT-TOT	HHDT-NCA	HHDT-CAT	HHDT-DSL	HHDT-TOT	OBUS-NCA	OBUS-CAT	OBUS-DSL	OBUS-TOT	SBUS-NCA	SBUS-CAT	SBUS-DSL	SBUS-TOT
16138	20390	0	141	4823	4965	0	356	1108	1464	0	104	911	1015
8	10	0	0	8	8	0	0	1	1	0	0	0	0
3534	5051	0	50	191	241	0	127	243	370	0	3	28	32
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0.01	0	0	0.01	0.01	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.01	0	0	0	0	0	0	0	0	0	0	0	0

```
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
      0.01      0.02         0      0.01      0.01      0.02         0         0         0         0         0         0         0         0

      0.01      0.01         0         0      0.02      0.02         0         0         0         0         0         0         0         0
         0         0         0         0      0.01      0.01         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
      0.01      0.01         0         0      0.03      0.03         0         0         0         0         0         0         0         0

      0.01      0.01         0         0      0.02      0.02         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
      0.01      0.01         0         0      0.02      0.02         0         0         0         0         0         0         0         0

         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
         0         0         0         0         0         0         0         0         0         0         0         0         0         0

         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0
         0         0         0         0         0         0         0         0         0         0         0         0         0         0

         0      0.15         0      0.01         0      0.01         0      0.01         0      0.01         0         0         0         0
      1.22      1.22         0         0      1.56      1.56         0         0      0.09      0.09         0         0      0.06      0.06
```

UB-NCAT	UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
0	206	235	441	0	9497	1030	10527	14946	29919	0	44865	1340380
0	0	0	1	0	1	0	1	1	2	0	3	445
0	6	7	14	0	7	1	8	233	467	0	701	72878
0	0	0	0	0	0	0	0	0	0	0	0.01	0.02
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	0.01
0	0	0	0	0	0	0	0	0.01	0.01	0	0.01	0.03
0	0	0	0	0	0	0	0	0	0.1	0	0.1	0.52
0	0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0.03
0	0	0	0	0	0	0	0	0	0.05	0	0.05	0.39
0	0	0	0	0	0	0	0	0.01	0.15	0	0.15	0.97
0	0	0	0	0	0	0	0	0.06	0.02	0	0.08	0.44
0	0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0.01	0	0.01	0.14

0	0	0	0	0	0	0	0	0.06	0.03	0	0.09	0.59
0	0	0	0	0	0	0	0	0	0	0	0	0.08
0	0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0	0	0.11
0	0	0	0	0	0	0	0	0	0	0	0	0.24
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	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0.24
0	0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0.01
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	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.02	0	0.02	0	0.09	0	0.09	0.03	0.06	0	0.09	21.32
0	0	0.07	0.07	0	0	0.02	0.02	0	0	0	0	3.21

Title : SunCreek SP- NFA
Version : Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **
Run Date : 2010/07/29 16:27:34
Scen Year: 2032 -- All model years in the range 1988 to 2032 selected
Season : Annual
Area : Sacramento County
I/M Stat : Enhanced Interim (2005)
Emissions: Tons Per Day

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	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT	MDV-CAT
Vehicles	0	654991	59	655050	0	137290	853	138143	0	295266	44	295310	0	130416
VMT/1000	0	177	0	177	0	38	0	38	0	80	0	80	0	38
Trips	0	21329	1	21331	0	4408	20	4428	0	9445	1	9446	0	4150
Reactive Organic Gas Emissions														
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diurnal	0	0.14	0	0.14	0	0.04	0	0.04	0	0.16	0	0.16	0	0.08
Hot Soak	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Running	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0
Resting	0	0.11	0	0.11	0	0.03	0	0.03	0	0.14	0	0.14	0	0.07
Total	0	0.26	0	0.26	0	0.07	0	0.07	0	0.31	0	0.31	0	0.15
Carbon Monoxide Emissions														
Run Exh	0	0.1	0	0.1	0	0.02	0	0.02	0	0.08	0	0.08	0	0.06

Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Start Ex	0	0.02	0	0.02	0	0.01	0	0.01	0	0.02	0	0.02	0	0.01		
Total Ex	0	0.12	0	0.12	0	0.03	0	0.03	0	0.11	0	0.11	0	0.07		
Oxides of Nitrogen Emissions																
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0		
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0.01		
Carbon Dioxide Emissions (000)																
Run Exh	0	0.07	0	0.07	0	0.02	0	0.02	0	0.04	0	0.04	0	0.03		
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Ex	0	0.07	0	0.07	0	0.02	0	0.02	0	0.04	0	0.04	0	0.03		
PM10 Emissions																
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TireWear	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BrakeWr	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0		
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Fuel Consumption (000 gallons)																
Gasoline	0	7.26	0	7.26	0	1.94	0	1.94	0	4.22	0	4.22	0	2.69		
Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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MDV-DSL	MDV-TOT	LHDT1-NCA	LHDT1-CAT	LHDT1-DSL	LHDT1-TOT	LHDT2-NCA	LHDT2-CAT	LHDT2-DSL	LHDT2-TOT	MHDT-NCA	MHDT-CAT	MHDT-DSL	MHDT-TOT
79	130495	0	21368	5371	26740	0	6280	4700	10980	0	4252	16138	20390
0	38	0	7	2	8	0	2	1	3	0	1	7	8
2	4152	0	3723	356	4079	0	1094	312	1406	0	1023	2384	3408
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.08	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.07	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0.15	0	0.01	0	0.01	0	0	0	0	0	0	0	0
0	0.06	0	0	0	0	0	0	0	0	0	0	0.01	0.01

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.01	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	
0	0.07	0	0.02	0	0.02	0	0	0	0.01	0	0.01	0.01	0.02	
0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.01	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0.01	0	0.01	0	0	0	0	0	0	0	0	
0	0.01	0	0.01	0	0.01	0	0	0	0	0	0	0.01	0.01	
0	0.03	0	0.01	0	0.01	0	0	0	0	0	0	0.01	0.01	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0.03	0	0.01	0	0.01	0	0	0	0	0	0	0.01	0.01	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	2.69	0	0.76	0	0.76	0	0.22	0	0.22	0	0.12	0	0.12	
0	0	0	0	0.08	0.08	0	0	0.08	0.08	0	0	0.99	0.99	

HHDT-NCA	HHDT-CAT	HHDT-DSL	HHDT-TOT	OBUS-NCA	OBUS-CAT	OBUS-DSL	OBUS-TOT	SBUS-NCAT	SBUS-CAT	SBUS-DSL	SBUS-TOT	UB-NCAT	UB-CAT
0	141	4823	4965	0	356	1108	1464	0	104	911	1015	0	206
0	0	7	7	0	0	0	1	0	0	0	0	0	0
0	34	129	163	0	86	164	249	0	2	19	21	0	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0

```
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
             0         0      0.01      0.01         0         0         0         0         0         0         0         0         0         0

             0         0      0.02      0.02         0         0         0         0         0         0         0         0         0         0
             0         0      0.01      0.01         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      0.02      0.02         0         0         0         0         0         0         0         0         0         0

             0         0      0.01      0.01         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
             0         0      0.01      0.01         0         0         0         0         0         0         0         0         0         0

             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
             0         0         0         0         0         0         0         0         0         0         0         0         0         0

             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
-------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------   -------
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0
             0         0         0         0         0         0         0         0         0         0         0         0         0         0

             0      0.01         0      0.01         0      0.01         0      0.01         0         0         0         0         0      0.02
             0         0      1.27      1.27         0         0      0.07      0.07         0         0      0.04      0.04         0         0
```

UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
235	441	0	9497	1030	10527	14946	29919	0	44865	1340380
0	0	0	1	0	1	1	2	0	3	364
5	9	0	5	1	6	157	315	0	473	49170
0	0	0	0	0	0	0	0	0	0.01	0.02
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0.01
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0.01	0.02
0	0	0	0	0	0	0	0.1	0	0.1	0.52
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0.05	0	0.05	0.39
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0.15	0	0.15	0.96
0	0	0	0	0	0	0.05	0.02	0	0.07	0.36

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0.01	0.09
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0.05	0.02	0	0.07	0.46
0	0	0	0	0	0	0	0	0	0	0.06
0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0.01
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0.08
0	0	0	0	0	0	0	0	0	0	0.19
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0.2
0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0.01
---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0.02	0	0.07	0	0.07	0.02	0.05	0	0.07	17.38
0.05	0.05	0	0	0.01	0.01	0	0	0	0	2.62

Title : SunCreek SP- PP
Version : Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **
Run Date : 2010/07/29 16:00:48
Scen Year: 2032 -- All model years in the range 1988 to 2032 selected
Season : Annual
Area : Sacramento County
I/M Stat : Enhanced Interim (2005)
Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT	MDV-CAT
Vehicles	0	654991	59	655050	0	137290	853	138143	0	295266	44	295310	0	130416
VMT/1000	0	303	0	303	0	64	0	64	0	137	0	137	0	64
Trips	0	41775	3	41777	0	8634	39	8673	0	18498	2	18500	0	8128
Reactive Organic Gas Emissions														
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0
Diurnal	0	0.14	0	0.14	0	0.04	0	0.04	0	0.16	0	0.16	0	0.08
Hot Soak	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Running	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0.01
Resting	0	0.11	0	0.11	0	0.03	0	0.03	0	0.14	0	0.14	0	0.07
Total	0	0.27	0	0.27	0	0.08	0	0.08	0	0.32	0	0.32	0	0.15
Carbon Monoxide Emissions														
Run Exh	0	0.17	0	0.17	0	0.04	0	0.04	0	0.14	0	0.14	0	0.09
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.04	0	0.04	0	0.01	0	0.01	0	0.04	0	0.04	0	0.03
Total Ex	0	0.21	0	0.21	0	0.05	0	0.05	0	0.19	0	0.19	0	0.12
Oxides of Nitrogen Emissions														
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0.01
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.02	0	0.02	0	0.01

Carbon Dioxide Emissions (000)

Run Exh	0	0.12	0	0.12	0	0.03	0	0.03	0	0.07	0	0.07	0	0.04		
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Ex	0	0.12	0	0.12	0	0.03	0	0.03	0	0.07	0	0.07	0	0.04		
PM10 Emissions																
Run Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Ex	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TireWear	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BrakeWr	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0		
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Fuel Consumption (000 gallons)																
Gasoline	0	12.46	0	12.46	0	3.32	0	3.32	0	7.24	0	7.24	0	4.61		
Diesel	0	0	0	0	0	0	0.01	0.01	0	0	0	0	0	0		

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MDV-DSL	MDV-TOT	LHDT1-NCA	LHDT1-CAT	LHDT1-DSL	LHDT1-TOT	LHDT2-NCA	LHDT2-CAT	LHDT2-DSL	LHDT2-TOT	MHDT-NCA	MHDT-CAT	MHDT-DSL
79	130495	0	21368	5371	26740	0	6280	4700	10980	0	4252	16138
0	64	0	11	3	14	0	3	2	6	0	2	11
4	8131	0	7292	697	7990	0	2143	610	2753	0	2004	4670
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.08	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	0.01	0	0	0	0	0	0	0	0	0	0	0
0	0.07	0	0	0	0	0	0	0	0	0	0	0
0	0.15	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0.09	0	0.01	0	0.01	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.03	0	0.02	0	0.02	0	0.01	0	0.01	0	0.02	0
0	0.12	0	0.03	0	0.03	0	0.01	0	0.01	0	0.02	0.02
0	0.01	0	0	0	0.01	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0.01	0	0.01	0	0.02	0	0	0	0.01	0	0	0.02

0	0.04	0	0.01	0	0.01	0	0	0	0.01	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---
0	0.04	0	0.01	0	0.01	0	0	0	0.01	0	0	0.02
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	4.61	0	1.3	0	1.3	0	0.38	0	0.38	0	0.2	0
0	0	0	0	0.15	0.15	0	0	0.13	0.13	0	0	1.7

MHDT-TOT	HHDT-NCA	HHDT-CAT	HHDT-DSL	HHDT-TOT	OBUS-NCA	OBUS-CAT	OBUS-DSL	OBUS-TOT	SBUS-NCAT	SBUS-CAT	SBUS-DSL	SBUS-TOT	UB-NCAT
20390	0	141	4823	4965	0	356	1108	1464	0	104	911	1015	0
14	0	0	12	12	0	0	1	1	0	0	1	1	0
6674	0	67	252	319	0	168	321	489	0	4	38	42	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0.01	0.02	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0.03	0	0.01	0.02	0.03	0	0	0	0	0	0	0	0	0
0.02	0	0	0.03	0.03	0	0	0	0	0	0	0	0	0
0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---
0.02	0	0	0.04	0.04	0	0	0	0	0	0	0	0	0

0.02	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.2	0	0.01	0	0.01	0	0.02	0	0.02	0	0.01	0	0.01	0
1.7	0	0	2.19	2.19	0	0	0.12	0.12	0	0	0.08	0.08	0

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
206	235	441	0	9497	1030	10527	14946	29919	0	44865	1340380
0	0	1	0	2	0	2	2	3	0	5	623
9	10	18	0	10	1	11	308	617	0	926	96303
0	0	0	0	0	0	0	0.01	0.01	0	0.01	0.03
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0.01	0.01	0	0.02	0.04
0	0	0	0	0	0	0	0	0.1	0	0.1	0.52
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.04
0	0	0	0	0	0	0	0	0.05	0	0.05	0.39
---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0.01	0.15	0	0.16	1
0	0	0	0	0	0	0	0.08	0.03	0	0.12	0.62
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0.01	0	0.01	0.18
---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0.09	0.04	0	0.13	0.81
0	0	0	0	0	0	0	0	0	0	0.01	0.11
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.02
---	---	---	---	---	---	---	---	---	---	---	---
0	0	0	0	0	0	0	0	0	0	0.01	0.15

0	0	0	0	0	0	0	0	0	0	0	0.33
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.34
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0	0	0	0	0.03
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0.03	0	0.13	0	0.13	0.04	0.08	0	0.12	29.82
0	0.09	0.09	0	0	0.03	0.03	0	0	0	0	4.49

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> SunCreek Americanos Pipeline Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	3.9	16.8	27.8	2.7	1.4	1.3	1.5	1.3	0.3	3,223.4
Drainage/Utilities/Sub-Grade	4.2	18.4	27.0	3.0	1.7	1.3	1.8	1.5	0.3	3,929.2
Paving	-	-	-	-	-	-	-	-	-	-
Maximum (pounds/day)	4.2	18.4	27.8	3.0	1.7	1.3	1.8	1.5	0.3	3,929.2
Total (tons/construction project)	0.1	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	50.1

Notes:

Project Start Year ->	2012
Project Length (months) ->	1
Total Project Area (acres) ->	1
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> SunCreek Americanos Pipeline Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	1.8	7.6	12.6	1.2	0.6	0.6	0.7	0.6	0.1	1,465.2
Drainage/Utilities/Sub-Grade	1.9	8.4	12.3	1.4	0.8	0.6	0.8	0.7	0.1	1,786.0
Paving	-	-	-	-	-	-	-	-	-	-
Maximum (kilograms/day)	1.9	8.4	12.6	1.4	0.8	0.6	0.8	0.7	0.1	1,786.0
Total (megagrams/construction project)	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	45.5

Notes:

Project Start Year ->	2012
Project Length (months) ->	1
Total Project Area (hectares) ->	0
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported (meters ^{3}/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> AunCreek Anatolia Pipeline Conversion Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	4.2	18.0	28.8	3.5	1.5	2.0	1.8	1.4	0.4	3,359.6
Drainage/Utilities/Sub-Grade	4.4	17.2	24.3	3.9	1.9	2.0	2.1	1.7	0.4	2,448.0
Paving	3.3	12.0	15.4	1.4	1.4	-	1.3	1.3	-	1,584.2
Maximum (pounds/day)	4.4	18.0	28.8	3.9	1.9	2.0	2.1	1.7	0.4	3,359.6
Total (tons/construction project)	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	27.1

Notes:

Project Start Year ->	2012
Project Length (months) ->	1
Total Project Area (acres) ->	1
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> AunCreek Anatolia Pipeline Conversion Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	1.9	8.2	13.1	1.6	0.7	0.9	0.8	0.6	0.2	1,527.1
Drainage/Utilities/Sub-Grade	2.0	7.8	11.0	1.8	0.9	0.9	1.0	0.8	0.2	1,112.7
Paving	1.5	5.5	7.0	0.6	0.6	-	0.6	0.6	-	720.1
Maximum (kilograms/day)	2.0	8.2	13.1	1.8	0.9	0.9	1.0	0.8	0.2	1,527.1
Total (megagrams/construction project)	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	24.5

Notes:

Project Start Year ->	2012
Project Length (months) ->	1
Total Project Area (hectares) ->	1
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported ($meters^3$/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> SunCreek Florin-Sunrise Pipeline: No Bore Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	5.7	23.2	32.9	2.9	1.9	1.0	1.9	1.7	0.2	3,927.8
Drainage/Utilities/Sub-Grade	5.2	19.8	23.9	2.9	1.9	1.0	1.9	1.7	0.2	2,665.3
Paving	4.8	17.2	19.5	1.8	1.8	-	1.6	1.6	-	2,155.3
Maximum (pounds/day)	5.7	23.2	32.9	2.9	1.9	1.0	1.9	1.7	0.2	3,927.8
Total (tons/construction project)	0.5	1.8	2.2	0.2	0.2	0.1	0.2	0.1	0.0	242.8

Notes:

Project Start Year ->	2012
Project Length (months) ->	8
Total Project Area (acres) ->	2
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> SunCreek Florin-Sunrise Pipeline: Jack and Bore				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (English Units)	**ROG (lbs/day)**	**CO (lbs/day)**	**NOx (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM2.5 (lbs/day)**	**PM2.5 (lbs/day)**	**PM2.5 (lbs/day)**	**CO2 (lbs/day)**
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	-	-	-	-	-	-	-	-	-	-
Drainage/Utilities/Sub-Grade	0.8	4.2	8.0	0.3	0.3	0.0	0.3	0.3	0.0	1,907.9
Paving	-	-	-	-	-	-	-	-	-	-
Maximum (pounds/day)	0.8	4.2	8.0	0.3	0.3	0.0	0.3	0.3	0.0	1,907.9
Total (tons/construction project)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	21.0

Notes:

Project Start Year ->	2012
Project Length (months) ->	1
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimate Summary for Sunrise Florin Pipeline Alternative

Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Road Excavation, Trenching, Paving										
Maximum (pounds/day)	5.75	23.24	32.86	2.88	1.88	1.00	1.91	1.71	0.21	3927.78
Total (tons/construction project)	0.46	1.75	2.15	0.23	0.16	0.07	0.16	0.15	0.01	242.82
Bore Only										
Maximum (pounds/day)	0.85	4.20	8.03	0.30	0.28	0.02	0.26	0.25	0.00	1907.85
Total (tons/construction project)	0.01	0.05	0.09	0.00	0.00	0.00	0.00	0.00	0.00	20.99
Total for Sunrise Florin Pipeline										
Maximum (pounds/day)	6.60	27.43	40.90	3.18	2.16	1.02	2.17	1.96	0.21	5835.64
Total (tons/construction project)	0.47	1.80	2.24	0.23	0.17	0.07	0.17	0.15	0.01	263.81

EIA

Residential Natural Gas Consumption Annual Growth Rate 2008-2035
0.60%

Residential Electricity Consumption Annual Growth Rate 2008-2035
0.70%

Commercial Natural Gas Consumption Annual Growth Rate 2008-2035
0.30%

Commercial Electricity Consumption Annual Growth Rate 2008-2035
1.20%

Industrial Natural Gas Consumption Annual Growth Rate 2008-2035
-0.70%

Industrial Electricity Consumption Annual Growth Rate 2008-2035
0.40%

SMUD

Residential Electricity Consumption Annual Growth Rate 2010-2020
1.59%

Commercial Electricity Consumption Annual Growth Rate 2010-2020
0.98%

Industrial Electricity Consumption Annual Growth Rate 2010-2020
1.01%

PG&E

Residential Natural Gas Consumption Annual Growth Rate 2010-2020
1.11%

Commercial Natural Gas Consumption Annual Growth Rate 2010-2020
0.52%

Industrial Natural Gas Consumption Annual Growth Rate 2010-2020
-0.37%

Average of EIA and SMUD/PG&E Factors

Residential Natural Gas Consumption Annual Growth Rate 2010-2035
0.86%

Residential Electricity Consumption Annual Growth Rate 2010-2035
1.15%

Commercial Natural Gas Consumption Annual Growth Rate 2010-2035
0.41%

Commercial Electricity Consumption Annual Growth Rate 2010-2035
1.09%

Industrial Natural Gas Consumption Annual Growth Rate 2010-2035
-0.54%

Industrial Electricity Consumption Annual Growth Rate 2010-2035
0.71%

Source: Energy Information Administration. Annual Energy Outlook Supplemental Tables, 2010. Pacific Region. Available: http://www.eia.doe.gov/oiaf/aeo/supplement/supref.html
http://www.eia.gov/oiaf/aeo/tablebrowser/#release=AEO2011&subject=12-AEO2011&table=2-AEO2011&region=1-9&cases=ref2011-d020911a

SMUD

Form 1.1 - SMUD Planning Area
California Energy Demand 2010-2020 Staff Revised Forecast
Electricity Consumption by Sector (GWh)

Year	Residential	Residential Electric Vehicles*	Commercial	Commercial Electric Vehicles*	Industrial	Mining	Agricultural	TCU	Street lighting	Total Consumption
1990	3,611	0	3,138	0	721	124	107	589	67	8,358
1991	3,603	0	3,083	0	721	133	120	620	68	8,349
1992	3,626	0	3,208	0	748	103	131	611	68	8,496
1993	3,636	0	3,216	0	734	100	134	547	68	8,435
1994	3,663	0	3,207	0	727	110	146	495	71	8,419
1995	3,604	0	3,269	0	720	112	140	542	72	8,459
1996	3,808	0	3,342	0	769	116	151	547	75	8,807
1997	3,840	0	3,465	0	773	119	164	572	75	9,009
1998	3,960	0	3,438	0	829	138	122	564	75	9,126
1999	3,967	0	3,552	0	850	165	162	553	80	9,330
2000	4,136	0	3,597	0	843	167	147	523	81	9,494
2001	4,021	0	3,513	0	737	146	145	436	79	9,076
2002	4,089	0	3,694	0	781	145	162	441	79	9,391
2003	4,363	0	3,923	0	784	125	181	476	80	9,933
2004	4,429	0	4,073	0	778	129	190	482	80	10,161
2005	4,558	0	4,315	0	787	128	177	490	81	10,536
2006	4,750	0	4,342	0	866	129	185	493	80	10,846
2007	4,638	0	4,367	0	918	136	208	525	85	10,877
2008	4,704	0	4,466	0	826	129	205	541	85	10,956
2009	4,621	0	4,294	0	799	106	196	542	86	10,644
2010	4,617	0	4,279	0	824	100	203	547	87	10,656
2011	4,668	4	4,321	1	848	105	209	554	88	10,793
2012	4,749	10	4,394	1	878	112	216	561	89	10,998
2013	4,840	25	4,472	2	893	117	222	566	90	11,200
2014	4,928	45	4,524	3	899	118	229	572	91	11,361
2015	5,010	66	4,565	3	904	119	236	577	92	11,504
2016	5,088	85	4,596	4	909	120	244	583	93	11,632
2017	5,163	102	4,625	4	912	120	251	589	94	11,754
2018	5,240	122	4,654	5	913	120	258	595	95	11,875
2019	5,320	141	4,685	5	913	120	266	601	96	12,001
2020	5,407	160	4,716	5	911	119	274	607	97	12,131
2032	6149.9218		5332.8528		988.0706					*used EIA and SMUD Average for 2010-2035
2032	9072.655588 kWh/household									

* Residential and commercial electric vehicle consumption included in residential and commercial totals.

Annual Growth Rates (%)										
1990-2000	1.37%	0.00%	1.37%	0.00%	1.57%	3.03%	3.21%	-1.19%	1.93%	1.28%
2000-2008	1.62%	0.00%	2.74%	0.00%	-0.26%	-3.19%	4.19%	0.42%	0.67%	1.81%
2008-2010	-0.94%	46.45%	-2.12%	-10.01%	-0.12%	-12.02%	-0.53%	0.61%	1.08%	-1.38%
2010-2020	1.59%	84.29%	0.98%	32.15%	1.01%	1.78%	3.06%	1.04%	1.08%	1.30%

http://www.energy.ca.gov/2009publications/CEC-200-2009-012/index.html

Form 2.2 - SMUD Planning Area
California Energy Demand 2010-2020 Staff Revised Forecast
Planning Area Economic and Demographic Assumptions

Year	Household Population	Households	Persons per Household	Real Personal Income (Millions 2007$)	Industrial Output (Millions 2007$)	Commercial Floorspace (MM Sqft.)	
1990	1,018,434	396,134	2.57	30,833	2,200	173	
1991	1,051,318	407,886	2.58	30,889	2,516	178	
1992	1,068,645	415,085	2.58	31,521	2,390	184	
1993	1,083,912	421,153	2.57	31,227	2,358	188	
1994	1,090,145	427,082	2.55	31,986	2,353	191	
1995	1,095,153	432,887	2.53	33,106	2,443	194	
1996	1,109,748	438,011	2.53	33,406	2,628	197	
1997	1,123,820	440,189	2.55	34,696	3,066	200	
1998	1,140,219	443,015	2.57	36,996	3,489	205	
1999	1,179,071	449,589	2.62	38,608	4,191	210	
2000	1,205,302	455,605	2.65	41,199	5,321	216	
2001	1,244,648	464,057	2.68	42,903	4,818	222	
2002	1,277,346	474,117	2.69	43,922	4,945	227	
2003	1,306,513	484,835	2.7	45,449	5,159	233	
2004	1,331,629	495,584	2.69	47,177	5,328	238	
2005	1,352,292	506,611	2.67	48,098	7,056	244	
2006	1,370,908	516,357	2.66	49,367	8,124	247	
2007	1,389,506	523,717	2.65	50,157	8,041	253	
2008	1,404,712	528,387	2.66	50,047	8,028	256	
2009	1,419,826	534,072	2.66	49,497	7,839	259	
2010	1,435,101	539,818	2.66	49,181	7,983	261	
2011	1,450,536	545,624	2.66	49,772	8,184	263	
2012	1,466,135	551,492	2.66	51,152	8,431	267	
2013	1,481,898	557,421	2.66	52,541	8,572	270	
2014	1,497,828	563,413	2.66	53,683	8,642	274	
2015	1,513,927	569,469	2.66	54,692	8,726	278	
2016	1,530,195	575,588	2.66	55,726	8,807	281	
2017	1,546,636	581,772	2.66	56,780	8,876	284	
2018	1,563,250	588,022	2.66	57,827	8,933	288	
2019	1,580,040	594,337	2.66	58,880	8,969	291	
2020	1,597,008	600,720	2.66	59,922	8,995	294	
2032	1,802,064	677,852	3	74,231	10,290	337	*used 2010-2020 growth rates

Annual Growth Rates (%)						
1990-2000	1.70%	1.41%	0.31%	2.94%	9.23%	2.23%
2000-2008	1.93%	1.87%	0.05%	2.46%	5.28%	2.15%
2008-2010	1.08%	1.08%	0.00%	-0.87%	-0.28%	0.95%
2010-2020	1.07%	1.07%	0.00%	1.99%	1.20%	1.21%

http://www.energy.ca.gov/2009publications/CEC-200-2009-012/index.html

PG&E

Form 1.1 - PG&E Natural Gas Planning Area
Natural Gas Consumption by Sector (10^6 Therms)

	Residential	Commercial	Industrial	Mining	Agricultural	Other	Total Consumption
1990	2,118	778	1,962	238	65	114	5,275
1991	2,169	758	1,733	418	60	122	5,260
1992	1,963	651	1,530	162	50	90	4,445
1993	2,126	696	1,732	96	40	95	4,786
1994	2,211	755	1,840	71	52	98	5,027
1995	1,966	707	1,950	77	47	76	4,822
1996	1,982	706	2,081	44	55	81	4,950
1997	1,978	723	2,014	163	64	67	5,010
1998	2,283	789	1,914	319	70	67	5,442
1999	2,422	831	1,837	236	71	64	5,461
2000	2,164	797	1,909	288	79	55	5,291
2001	2,029	642	1,770	296	50	67	4,853
2002	2,086	819	1,547	272	59	35	4,818
2003	2,051	887	1,471	268	85	49	4,810
2004	2,024	812	1,538	304	65	68	4,811
2005	1,935	779	1,560	329	41	79	4,724
2006	2,021	950	1,747	29	41	98	4,886
2007	2,039	873	1,516	39	46	50	4,563
2008	1,951	841	1,375	46	41	55	4,309
2009	1,910	819	1,321	45	41	55	4,192
2010	1,928	822	1,296	43	41	56	4,186
2011	1,947	834	1,304	44	41	56	4,227
2012	1,968	845	1,312	45	41	57	4,268
2013	1,990	849	1,310	46	41	57	4,293
2014	2,011	848	1,299	45	41	58	4,302
2015	2,032	849	1,289	45	41	58	4,315
2016	2,054	852	1,280	44	41	59	4,330
2017	2,076	856	1,270	43	41	59	4,346
2018	2,099	857	1,258	42	41	60	4,358
2019	2,122	858	1,246	42	41	61	4,369
2020	2,153	859	1,232	41	41	61	4,388
2032	2,374						
2032	366.664496 therms/household						
2032	37 mmbtu/household						
Annual Growth Rates (%)							
1990-2000	0.22%	0.24%	-0.28%	1.93% -		-6.96%	0.03%
2000-2008	-1.28%	0.67%	-4.02%	-20.41%	-7.71%	-0.14%	-2.53%
2008-2010	-0.60%	-1.10%	-2.92%	-3.13%	0.00%	1.08%	-1.43%
2010-2020	1.11%	0.52%	-0.37%	-0.33%	0.00%	0.88%	0.50%

http://www.energy.ca.gov/2009publications/CEC-200-2009-012/index.html

Form 2.2 - PG&E Planning Area
California Energy Demand 2010-2020 Staff Revised Forecast
Planning Area Economic and Demographic Assumptions

Year	Household Population	Households	Persons per Household	Real Personal Income (Millions 2007$)	Industrial Output (Millions 2000$)	Commercial Floorspace (MM Sqft.)
1990	10,450,128	3,897,421	2.68	352,572	41,818	1,758
1991	10,678,197	3,961,902	2.7	351,034	41,838	1,800
1992	10,874,483	4,011,740	2.71	362,430	41,479	1,832
1993	11,037,375	4,055,134	2.72	364,533	40,641	1,866
1994	11,125,194	4,095,706	2.72	370,458	40,499	1,894
1995	11,221,517	4,135,477	2.71	384,839	42,528	1,925
1996	11,331,199	4,173,736	2.71	403,080	44,978	1,953
1997	11,538,191	4,216,615	2.74	424,313	54,285	1,981
1998	11,684,836	4,265,384	2.74	457,470	64,314	2,014
1999	11,859,729	4,319,650	2.75	489,081	76,991	2,062
2000	12,058,945	4,363,044	2.76	547,532	103,369	2,107
2001	12,296,435	4,419,002	2.78	535,209	91,177	2,152
2002	12,473,890	4,477,097	2.79	519,562	83,917	2,204
2003	12,634,773	4,536,605	2.79	520,797	85,650	2,246
2004	12,790,570	4,602,671	2.78	541,270	90,569	2,280
2005	12,942,336	4,675,276	2.77	557,496	105,435	2,315
2006	13,105,896	4,743,642	2.76	586,705	115,365	2,342
2007	13,289,560	4,801,043	2.77	607,914	114,093	2,372
2008	13,464,871	4,844,177	2.78	610,277	113,756	2,408
2009	13,641,175	4,902,717	2.78	612,700	112,270	2,445
2010	13,820,023	4,963,789	2.78	621,890	114,873	2,475
2011	14,002,083	5,024,762	2.79	636,633	119,051	2,501
2012	14,187,416	5,086,797	2.79	659,641	124,743	2,531
2013	14,376,096	5,149,913	2.79	683,170	128,452	2,565
2014	14,568,193	5,214,132	2.79	701,917	130,366	2,600
2015	14,763,782	5,279,477	2.8	718,519	132,139	2,635
2016	14,962,938	5,345,976	2.8	735,717	134,088	2,668
2017	15,165,735	5,413,653	2.8	753,699	135,921	2,699
2018	15,372,256	5,482,523	2.8	771,968	137,645	2,730
2019	15,582,566	5,552,617	2.81	790,445	139,181	2,761
2020	15,796,769	5,623,962	2.81	809,045	140,442	2,792
2032	18,355,846	6,474,305	3	1,068,263	174,654	3,197 *used 2010-2020 growth rates
Annual Growth Rates (%)						
1990-2000	1.44%	1.13%	0.30%	4.50%	9.47%	1.83%
2000-2008	1.39%	1.32%	0.07%	1.37%	1.20%	1.68%
2008-2010	1.31%	1.23%	0.08%	0.95%	0.49%	1.37%
2010-2020	1.35%	1.26%	0.09%	2.67%	2.03%	1.21%

SMUD: 2002 Baseline

		Annual Energy Intensities			Total Annual Usage	
Building Type	Floor Stock (kft2)	Electricity (kWh/ft2)	Natural Gas (therms/ft2)	Natural Gas (kBtu/ft2)	Electricity (GWh)	Natural Gas (Mtherms)
All Commercial	227,831	16.5	0.27	26.87	3759	61.2
Small Office (<30k ft2)	18,469	12.41	0.08	8.1	229	1.5
Large Office (>=30k ft2)	42,848	19.95	0.2	19.77	855	8.5
Restaurant	6,132	46.81	1.83	183.45	287	11.2
Retail	44,597	14.28	0.07	6.62	637	3
Food Store	5,582	44.79	0.29	28.99	250	1.6
Refrigerated Warehouse	2,722	16.85	0.02	1.58	46	0
Unrefrigerated Warehouse	15,307	3.76	0.01	0.64	58	0.1
School	20,005	9.16	0.18	18.45	183	3.7
College	11,968	10.84	0.32	32.48	130	3.9
Health	11,169	23.06	0.75	74.83	258	8.4
Lodging	9,691	12.26	0.42	41.54	119	4
Miscellaneous	39,342	18	0.39	38.95	708	15.3
All Offices	61,316	17.68	0.16	16.25	1084	10
All Warehouses	18,028	5.74	0.01	0.78	103	0.1

CEC CEUS Report: http://www.energy.ca.gov/ceus/

Sacramento County Average Water Demand Forecast

[Section 3]: http://www.msa2.saccounty.net/dwr/Pages/Reports-WSIP.aspx

325900 gallons/AF

SECTION 3. WATER DEMAND EVALUATION
Sacramento County Water Agency Zone 40
Zone 40 Water System Infrastructure Plan

325851

Table 3-1. 2030 Unit Water Demand Factors

Land Use Category	Abbreviation	Demand Factor[a] (AF/acre/year)	gal/acre/yr
Rural Estates	RE	1.33	433447
Single Family	SF	2.89	941851
Multi-Family - Low Density	MFLD	3.7	1205830
Multi-Family - High Density	MFHD	4.12	1342708
Commercial	COM	2.75	896225
Industrial	IND	2.71	883189
Industrial – Unutilized	IUN	0	0
Public	PUB	1.04	338936
Public Recreation	REC	3.46	1127614
Mixed Land Use	MLU	2.51	818009
Right-of-Way	ROW	0.21	68439
Water System Losses (7.5%)			

Note: a. Zone 40 WSMP, February 2005.

Table 3-2. Zone 40 Existing and Build-Out Water Demand

Service Area	Demand Region	Existing Demand[a]		Build-out Demand[a]	
	Annual Average (AF/year)	Annual Average (AF/year)	Max Day (MGD)	Annual Average (AF/year)	Max Day (MGD)
NSA	Mather Field	1,327	2.37	7,624	13.61
	Rio Del Oro - Cal Am Portion	-	-	3,917	6.99
	Rio Del Oro - Zone 40 Portion	-	-	4,872	8.7
	Sunrise Corridor	1,077	1.92	1,077	1.92
	Sunrise Douglas	-	-	15,492	27.66
	NSA Total Demand	2,404	4	32,982	58.9
CSA	Vineyard SWTP Parcel	-	-	113	0.2
	FRCD/EGWS	2,672	4.77	7,321	13.07
	Grantline/99	1,208	2.16	1,338	2.39
	Near Term Development Area	-	-	5,946	10.62
	Vineyard	3,476	6.21	7,264	12.97
	Vineyard Springs Comprehensive Plan	759	1.36	4,899	8.75
	Florin Vineyard (w/ some POU areas)[b]	-	-	8,243	14.72
	North Vineyard Station (w/ some POU areas)	-	-	3,971	7.09
	POU Area Only[c]	-	-	10,644	19.01
	CSA Total Demand	8,115	14	39,095	69.81
SSA[b]	Laguna	12,403	22.15	14,289	25.52
	Franklin	1,885	3.37	17,344	30.97
	SSA Total Demand[d]	14,288	26	31,633	56.49
	Total	24,807	44	103,710	185.2

Notes:

a. Demands shown include 7.5% system losses due to leakage and illegal connections to the water system.

b. This demand is taken from the Florin Vineyard Community Plan Water Study attached as Appendix B.

c. The POU Area demand is included in the North Vineyard Station and Florin Vineyard areas.

d. Does not include water demand that may be necessary for RCCC.

SunCreek

	Acreage	Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	Acreage	Water Demand (gal/yr)	
Land Uses	**PP**		**ACS**		**BIM**		**NFA**		**ID**		
Low DR	169.44	159587233.4	141.5	133271916.5	166.7	157006561.7	60.5	56981985.5	609.8	574340739.8	
Medium DR	322.65	389061049.5	410.9	495475547	391.3	471841279	300.6	362472498	173	208608590	
Compact DR	20.05	24176891.5	18.5	22307855	11.6	13987628	103.1	124321073	0	0	
High DR	34.59	46444269.72	12.5	16783850	6.2	8324789.6	21.3	28599680.4	31.4	42161031.2	
Commercial Mixed Use	31.87	28562690.75	10.9	9768852.5	0	0	7.8	6990555	17.7	15863182.5	
Local Town Center	59.39	53226802.75	0	0	0	0	0	0	0	0	
Public/Quasi-Public	13.03	4416336.08	7.2	2440339.2	4.1	1389637.6	4.8	1626892.8	0	0	
PP- Neighborhood Green	4.3	4848740.2	7.8	8795389.2	8.3	9359196.2	1	1127614		0	
Park	87.1	98215179.4	74.2	83668958.8	78.3	88292176.2	33.2	37436784.8	96	108250944	
PC- Parkway, Paseos and Trails	9.1	10261287.4	11.6	13080322.4	6.7	7555013.8	0.6	676568.4		0	
WB- Preserve Buffer	45.2		13		14.6		3.3				
DB- Detention Basin	46.9		14.9		15.8		14.9				
Storm Water Canal	5		6.4		0		0.8				
Wetland Preserve	203.7		310.2		411.1		578.5		97.4		
Elementary School	110.9	37588002.4	108.4	36740662.4	52	17624672	29.2	9896931.2	94.4	31995558.4	
Minor Roads	23.2		0		0		0		0		
Major Roads	79		106.5		87.8		96		135.8		
Total	1265.42	856388483.1	1254.5	822333693	1254.5	775380954.1	1255.6	630130583.1	1255.5	981220045.9	
		2627.7646		2523.27		2379.199		1933.509		3010.801	12474.54

Residential Waste Disposal Rates

County	Region	Per Capita Disposal Rate tons/res/year
Alameda	Bay Area	0.42
Alpine	Mountain	0.25
Amador	Mountain	0.25
Butte	Central Valley	0.36
Calaveras	Mountain	0.25
Colusa	Central Valley	0.36
Contra Costa	Bay Area	0.42
Del Norte	Coastal	0.44
El Dorado	Mountain	0.25
Fresno	Central Valley	0.36
Glenn	Central Valley	0.36
Humbolt	Coastal	0.44
Imperial	Southern	0.41
Inyo	Mountain	0.25
Kern	Southern	0.41
Kings	Central Valley	0.36
Lake	Central Valley	0.36
Lassen	Mountain	0.25
Los Angeles	Southern	0.41
Madera	Central Valley	0.36
Marin	Bay Area	0.42
Mariposa	Mountain	0.25
Mendocino	Coastal	0.44
Merced	Central Valley	0.36
Modoc	Mountain	0.25
Mono	Mountain	0.25
Monterey	Coastal	0.44
Napa	Bay Area	0.42
Nevada	Mountain	0.25
Orange	Southern	0.41
Placer	Central Valley	0.36
Plumas	Mountain	0.25
Riverside	Southern	0.41
Sacramento	**Central Valley**	**0.36**
San Benito	Coastal	0.44
San Bernardino	Southern	0.41
San Diego	Southern	0.41
San Francisco	Bay Area	0.42
San Joaquin	Central Valley	0.36
San Luis Obispo	Southern	0.41
San Mateo	Bay Area	0.42
Santa Barbara	Southern	0.41
Santa Clara	Bay Area	0.42
Santa Cruz	Coastal	0.44
Shasta	Mountain	0.25
Sierra	Mountain	0.25
Siskiyou	Mountain	0.25
Solano	Bay Area	0.42
Sonoma	Coastal	0.44
Stanislaus	Central Valley	0.36
Sutter	Central Valley	0.36
Tehama	Central Valley	0.36
Trinity	Mountain	0.25
Tulare	Central Valley	0.36
Tuolumne	Mountain	0.25
Ventura	Southern	0.41
Yolo	Central Valley	0.36
Yuba	Central Valley	0.36

	SunCreek	
Generation tons/unit-year	Haul Distance 2 to 5 miles each way	*assume 10 mile round trip, worst case
1.08		* 3 residents per unit in 2032 from SMUD and PG&E estimates

Residential waste disposal rates were computed as part of the 1999 Statewide Waste Characterization Study.
Per capita disposal rates were estimated for each of the five regions defined in the study--see the study for an explanation of how the regions were selected.
A single statewide disposal rate for multifamily units (MFU) of 0.46 tons/unit/year was also computed. This rate should be used for all jurisdictions.

Sun Creek Specific Plan
GHG Analysis Revision

Sun Creek Proposed Project and Alternatives VMT by Speed Bin (VMT/day)					
Speed Bin	**Proposed Project**	**Agency Conceptual Strategy Alternative**	**Biological Impact Minimization Alternative**	**No Federal Action Alternative**	**Increased Development Alternative**
>0	627	375	332	403	453
>5	3,855	1,918	1,786	1,988	2,414
>10	7,492	3,517	3,257	3,777	4,457
>15	52,831	30,668	26,644	26,349	33,864
>20	25,698	12,648	11,327	13,661	17,461
>25	22,062	11,450	11,081	12,437	13,760
>30	52,561	33,689	32,744	33,363	42,271
>35	65,755	38,823	36,931	40,932	48,934
>40	231,307	150,455	131,196	148,997	175,938
>45	72,561	36,361	34,491	34,646	43,574
>50	74,115	42,616	39,902	38,602	50,344
>55	12,513	8,073	7,437	8,091	9,805
>60	1,491	897	1,005	1,044	1,353
>65	0	0	0	0	0
>70	0	0	0	0	0
>75	0	0	0	0	0
Total Daily VMT	**622,868**	**371,489**	**338,131**	**364,289**	**444,627**
Daily Trips	**96,303**	**61,210**	**45,954**	**49,170**	**72,878**
Total Emissions (MT CO_2e/yr)					
LCFS/Pavley Reductions (MT CO_2e/yr)					

Table 1: Daily Project VMT						Table 2: Annual CO2e Emissions (MT CO2)						
Speed Bin	Proposed Project	Agency Conceptual Strategy Alternative	Biological Impact Minimization Alternative	No Federal Action Alternative	Increased Development Alternative	2032 CO2 EFs (g/mile)	Proposed Project	Agency Conceptual Strategy Alternative	Biological Impact Minimization Alternative	No Federal Action Alternative	Increased Development Alternative	
>0	627	375	332	403	453	375.755	85.99341053	51.43146563	45.5339909	55.27116817	52.1292105	
>5	3,855	1,918	1,788	1,988	2,414	1187.613	1,671	831	774	862	1,046	
>10	7,492	3,517	3,257	3,777	4,457	904.375	2,473	1,161	1,075	1,247	1,471	
>15	52,831	30,668	26,644	26,349	33,864	715.262	13,793	8,007	6,956	6,879	8,841	
>20	25,698	12,648	11,327	13,661	17,461	587.907	5,514	2,714	2,431	2,931	3,747	
>25	22,082	11,450	11,081	12,437	13,760	504.617	4,063	2,109	2,041	2,291	2,534	
>30	52,561	23,889	32,744	33,263	42,271	448.502	8,926	5,319	5,361	5,462	6,921	
>35	65,755	36,823	36,921	40,932	46,934	412.508	9,900	5,845	5,561	6,153	7,388	
>40	231,307	150,455	131,196	148,997	175,938	391.98	33,094	21,526	18,771	21,317	25,172	
>45	72,561	36,361	34,401	34,646	43,574	384.71	10,189	5,106	4,843	4,865	6,119	
>50	74,115	42,616	39,902	39,602	50,344	389.965	10,549	6,066	5,680	5,495	7,166	
>55	12,513	8,073	7,437	8,091	9,805	408.438	1,865	1,204	1,109	1,206	1,462	
>60	1,491	897	1,005	1,044	1,353	442.388	241	144.8400431	162	169	218	
>65	0	0	0	0	0	426.114	0	0	0	0	0	
>70	0	0	0	0	0							
>75	0	0	0	0	0							
Total Daily VMT	622,868	371,489	338,131	364,289	444,627	EMFAC	102,046	60,281	54,809	58,942	72,128	running
Daily Trips	96,303	61,210	45,954	49,170	72,876	URBEMIS	94,243	68,990	56,325	56,549	82,935	running and start

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (SunCreek SP- PP)

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS	Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)	Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
LDA	655,050	303,039	121.33	38.59	82.74	10.00%	8.27	74.47	0.02
LDT1	138,143	64,395	32.45	9.89	22.56	10.00%	2.26	20.31	0.01
LDT2	295,310	136,595	70.37	15.61	54.76	10.00%	5.48	49.29	0.02
MDV	130,495	64,145	44.87	9.50	35.37	10.00%	3.54	31.83	0.01
Total	1,218,998	568,173	269.02	73.59	195.43	10.00%	19.54	175.89	0.06
MT CO2/year			89078.94922	24367.4279			6471.152132	58240.36919	55368.22553
			difference	21327 from BGM -3040.427899			5528 from BGM -943.1521322		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (SunCreek SP- ACS)

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS	Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)	Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
LDA	655,050	180,738	72.49	23.05	49.44	10.00%	4.94	44.49	0.01
LDT1	138,143	38,406	19.39	5.91	13.48	10.00%	1.35	12.13	0.00
LDT2	295,310	81,467	42.04	9.33	32.72	10.00%	3.27	29.45	0.01
MDV	130,495	38,257	26.80	5.68	21.13	10.00%	2.11	19.01	0.01
Total	1,218,998	338,868	160.72	43.96	116.76	10.00%	11.68	105.08	0.03
MT CO2/year			53218.78373	14556.94713			3866.183661	34795.65295	33079.69346
			difference	15613 from BGM 1056.052874			4047 from BGM 180.8163392		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (SunCreek SP- BIM)

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS	Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)	Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
LDA	655,050	164,508	65.65	20.88	44.77	10.00%	4.48	40.29	0.01
LDT1	138,143	34,957	17.56	5.35	12.21	10.00%	1.22	10.99	0.00
LDT2	295,310	74,152	38.08	8.45	29.63	10.00%	2.96	26.67	0.01
MDV	130,495	34,822	24.29	5.14	19.14	10.00%	1.91	17.23	0.01
Total	1,218,998	308,439	145.58	39.83	105.75	10.00%	10.58	95.18	0.03
MT CO2/year			48205.64831	13188.2287			3501.74196	31515.67764	29961.47125
			difference	12746 from BGM -442.2287042			3304 from BGM -197.7419603		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (SunCreek SP- NFA)

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS	Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)	Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
LDA	655,050	177,235	70.72	22.50	48.23	10.00%	4.82	43.40	0.01
LDT1	138,143	37,662	18.92	5.76	13.15	10.00%	1.32	11.84	0.00
LDT2	295,310	79,888	41.02	9.10	31.92	10.00%	3.19	28.73	0.01
MDV	130,495	37,516	26.16	5.54	20.62	10.00%	2.06	18.56	0.01
Total	1,218,998	332,300	156.82	42.90	113.92	10.00%	11.39	102.53	0.03
MT CO2/year			51926.7304	14206.34129			3772.03891	33948.35019	32274.17573
			difference	12797 from BGM -1409.341292			3317 from BGM -455.0389104		

CO2 Emission Reductions from the Pavley I Regulation & the Low Carbon Fuel Standard for Sacramento - 2032 (SunCreek SP- ID)

Vehicle Category	Vehicle Population	Weekday VMT from EMFAC (VMT/day)	Weekday CO2 Emissions from EMFAC (tons/day)	Weekday CO2 Emission Reduction from Pavley I (tons/day)	Weekday CO2 Emissions after adopting Pavley I (tons/day)	% CO2 Emission Reduction from LCFS	Weekday CO2 Emission Reduction from LCFS (tons/day)	Weekday CO2 Emissions after adopting Pavley I & LCFS (tons/day)	Annual CO2 Emissions after adopting Pavley I & LCFS (MMTCO2/year)
LDA	655,050	216,321	86.75	27.59	59.16	10.00%	5.92	53.24	0.02
LDT1	138,143	45,968	23.20	7.07	16.13	10.00%	1.61	14.52	0.00
LDT2	295,310	97,506	50.31	11.16	39.15	10.00%	3.92	35.24	0.01
MDV	130,495	45,789	32.08	6.79	25.28	10.00%	2.53	22.75	0.01
Total	1,218,998	405,584	192.34	52.61	139.73	10.00%	13.97	125.75	0.04
MT CO2/year			63687.19256	17420.47671			4626.671585	41640.04427	39586.55128
			difference	18768 from BGM 1347.52329			4885 from BGM 238.3284149		

Sun Creek Specific Plan
GHG Mitigation Calculations

STATEWIDE MEASURES AFTER 2005

Low Carbon Fuel Standard/Pavley	PP Reductions (MT CO_2e/yr)	ACS Reductions (MT CO_2e/yr)	BIM Reductions (MT CO_2e/yr)	NFA Reductions (MT CO_2e/yr)	ID Reductions (MT CO_2e/yr)
EMFAC2011	104,330	61,707	56,120	60,365	73,838
EMFAC2011 (LCFS/Pavley)	78,958	46,706	42,478	45,692	55,888
Annualization	347	347	347	347	347
LCFS/Pavley Reduction (MT CO_2e/yr)	25,373	15,001	13,642	14,673	17,950

Source: EMFAC2011 Scenario Generator for Sacramento County Year 2020

Renewable Porfolio Standard (33%)	PP Reductions (MT CO_2e/yr)	ACS Reductions (MT CO_2e/yr)	BIM Reductions (MT CO_2e/yr)	NFA Reductions (MT CO_2e/yr)	ID Reductions (MT CO_2e/yr)
SMUD 2006	12%	12%	12%	12%	12%
SMUD 2020	37%	37%	37%	37%	37%
RPS Reductions (MT CO_2e/yr)	5,198	3,907	3,363	3,736	4,721

Source: SMUD Renewable Energy Resources Eligibility Guideline (October 2008), SMUD website

Utility Emission Factors	lbs/MWh	GWP
CO_2 (CA-average)	804.54	1
CH_4 (CA-average)	0.0067	21
N_2O (CA-average)	0.0037	310
CO_2e (CA-average)	805.83	
CO_2e (2005 SMUD)	617.36	
SMUD/CA-Average Ratio	77%	

Source: Climate Registry Emission Factor Database (asking CL for full source)

AB 32 Scoping Plan Measure	AB 32 Reduction ($MMTCO_2e$)	Total Sector ($MMTCO_2e$)	% Reduction	PP Reductions (MT CO_2e/yr)	ACS Reductions (MT CO_2e/yr)
Water Use Efficiency	1.4	110.4	1%	19	18
Energy Efficiency (NG)	4.3	50.9	8%	853	825
Energy Efficiency (Electricity)	15.2	110.4	14%	1,804	1,356

Source: ARB 2020 Inventory; Scoping Plan Measures Implementation (October 28, 2010)

Statewide Reduction Summary	PP Reductions (MT CO_2e/yr)	ACS Reductions (MT CO_2e/yr)	BIM Reductions (MT CO_2e/yr)	NFA Reductions (MT CO_2e/yr)	ID Reductions (MT CO_2e/yr)
LCFS/Pavley	25,373	15,001	13,642	14,673	17,950
RPS	5,198	3,907	3,363	3,736	4,721
Water Efficiency	19	18	17	14	21
NG Efficiency	853	825	754	823	992
Elec Efficiency	1,804	1,356	1,167	1,296	1,638
Total SW	33,246	21,107	18,943	20,542	25,322

BIM Reductions (MT CO_2e/yr)	NFA Reductions (MT CO_2e/yr)	ID Reductions (MT CO_2e/yr)
17	14	21
754	823	992
1,167	1,296	1,638

APPLICABLE MITIGATION MEASURE FROM AQMP

Mitigation Name	AQMP Measure Number	Equivalent CAPCOA	Emission Reduction Calculations				
Bicycle Parking	1, 6	SDT-6, TST-5 - Grouped with AQMP Measure 6 (LUT-9) and Measure 9					
			PP Reductions ($MT CO_2e/yr$)	**ACS Reductions ($MT CO_2e/yr$)**	**BIM Reductions ($MT CO_2e/yr$)**	**NFA Reductions ($MT CO_2e/yr$)**	**ID Reductions ($MT CO_2e/yr$)**
CAPCOA: SDT-6 (pg. 202, 213 of pdf)		VMT Reduction	0.625%	0.625%	0.625%	0.625%	0.625%
		GHG Reduction	493	292	265	286	349
End of Trip Facilities	2	TRT-5 Grouped with AQMP Measure 6 (LUT-9) and Measure 9					
			PP Reductions ($MT CO_2e/yr$)	**ACS Reductions ($MT CO_2e/yr$)**	**BIM Reductions ($MT CO_2e/yr$)**	**NFA Reductions ($MT CO_2e/yr$)**	**ID Reductions ($MT CO_2e/yr$)**
CAPCOA: TRT-5 (pg. 234, 245 of pdf)		VMT Reduction	0.625%	0.625%	0.625%	0.625%	0.625%
		GHG Reduction	493	292	265	286	349
Bicycle Parking at MFR	3	SDT-7	No quantification				
Pedestrian Network	5	SDT-1					
			PP Reductions ($MT CO_2e/yr$)	**ACS Reductions ($MT CO_2e/yr$)**	**BIM Reductions ($MT CO_2e/yr$)**	**NFA Reductions ($MT CO_2e/yr$)**	**ID Reductions ($MT CO_2e/yr$)**
CAPCOA: SDT-1 (pg. 186, 197 of pdf)		VMT Reduction	1%	1%	1%	1%	1%
		GHG Reduction	790	467	425	457	559
Pedestrian Barriers Minimized	6		No quantification, but used for grouping with Bicycle Parking and End of Trip Facilities				
Bus Shelter for Planned Transit Service	8		No quantification				
Traffic Calming	9	SDT-2, RPT-2					
			PP Reductions ($MT CO_2e/yr$)	**ACS Reductions ($MT CO_2e/yr$)**	**BIM Reductions ($MT CO_2e/yr$)**	**NFA Reductions ($MT CO_2e/yr$)**	**ID Reductions ($MT CO_2e/yr$)**
CAPCOA: SDT-2 (pg. 190, 201 of pdf)		VMT Reduction	0.25%	0.25%	0.25%	0.25%	0.25%
		GHG Reduction	197	117	106	114	140
Pedestrian Pathway Through Parking	13		No quantification				
Office/Mixed-Use Density	15	LUT-5	% VMT Reduction (<30%) = Increase in Transit Mode Share * B				
			PP Reductions ($MT CO_2e/yr$)	**ACS Reductions ($MT CO_2e/yr$)**	**BIM Reductions ($MT CO_2e/yr$)**	**NFA Reductions ($MT CO_2e/yr$)**	**ID Reductions ($MT CO_2e/yr$)**
CAPCOA: LUT-5 (pg. 171, 182 of pdf)		Percent of Land Uses	33.7%	33.7%	33.7%	33.7%	33.7%
		Distance to Transit (miles)	0.25	0.25	0.25	0.25	0.25
		Project Transit Mode Share	8.6	8.6	8.6	8.6	8.6
		Typical Transit Mode Share	1.3	1.3	1.3	1.3	1.3
		Increase in Transit Mode Share	7.3	7.3	7.3	7.3	7.3
		B (Adj to Transit Ridership Increase to VMT)	0.67	0.67	0.67	0.67	0.67
		% VMT Reduction	4.9%	4.9%	4.9%	4.9%	4.9%
		GHG Reduction	3,858	2,282	2,076	2,233	2,731
Orientation Toward Planned Transit, Bikeway, or Pedestrian Corridor	17	LUT-7	Included in LUT-3				
Residential Density	18		% VMT Reduction (<30%) = % Increase in HH/Acre or Jobs/Job-Acre * Elasticity of VMT to Density				
			PP	**ACS**	**BIM**	**NFA**	**ID**
CAPCOA: LUT-1 (pg. 155, 166 of pdf)		Elasticity	0.07	0.07	0.07	0.07	0.07
		Proposed Density	8.12	7.97	7.71	9.90	6.88
		ITE Density	8.70	8.50	8.14	10.66	6.07
		% Increase	-7%	-6%	-5%	-7%	13%
		% VMT Reduction	-0.5%	-0.4%	-0.4%	-0.5%	0.9%
		GHG Reduction ($MT CO_2e/yr$)	-	-	-	-	734.20
Neighborhood Electric Vehicle Access	20	SDT-3, SDT-8,	No quantification				
Suburban Mixed-Use	23	LUT-3 and LUT-7	% VMT Reduction (<30%) = Land Use Increase from Single Use * Elasticity of VMT to LU				
			PP	**ACS**	**BIM**	**NFA**	**ID**
CAPCOA: LUT-3 (pg. 162, 173 of pdf)		Elasticity	9.00%	9.00%	9.00%	9.00%	9.00%
		LU 1 Percent (SF)	16.00%	20.45%	22.36%	25.86%	21.10%
		LU 2 Percent (MF)	4.46%	1.53%	0.48%	2.74%	2.41%
		LU 3 Percent (TC and CMU)	2.31%	0.01%	0.01%	0.01%	0.01%
		LU 4 Percent (PQP and Schools)	9.66%	10.21%	6.23%	4.81%	6.81%
		LU 5 Percent (Parks)	10.26%	9.46%	11.03%	5.92%	9.39%
		LU 6 Percent (Ind)	0.01%	0.01%	0.01%	0.01%	0.01%
		Land Use Index	0.547	0.472	0.434	0.426	0.460
		Land Use Increase	2.64	2.15	1.90	1.84	2.07
		% VMT Reduction	24%	19%	17%	17%	19%
		GHG Reduction ($MT CO_2e/yr$)	18,787.70	9,035.71	7,249.79	7,571.73	10,406.58
No Fireplace	25	URBEMIS					
Transportation Management Associated Membership	33		No quantification				
Enhanced Pedestrian and Trail Network	99a	SDT-9	No quantification				
Transit Corridor Fees	99b	RPT-1	No quantification				

Project Mitigation Summary	PP Reductions ($MT CO_2e/yr$)	ACS Reductions ($MT CO_2e/yr$)	BIM Reductions ($MT CO_2e/yr$)	NFA Reductions ($MT CO_2e/yr$)	ID Reductions ($MT CO_2e/yr$)
1	493	292	265	286	349
2	493	292	265	286	349
5	790	467	425	457	559
9	197	117	106	114	140
15	3,858	2,282	2,076	2,233	2,731
18	-	-	-	-	734
23	18,787.70	9,035.71	7,249.79	7,571.73	10,406.58
Total Emissions with All Measures ($MT CO_2e/yr$)	55,811	34,941	32,676	35,359	42,187
Cumulative Emission Reductions ($MT CO_2e/yr$)	23,146	11,764	9,802	10,333	13,701
CAPCOA Cumulative Emission Reductions ($MT CO_2e/yr$)	7,896	4,671	4,248	4,569	5,589

Sun Creek Specific Plan
Total Construction and Year 2020 Operational Emissions

Reduction Goal	28.5%

	Proposed Project (PP)		Agency Conceptual Strategy (ACS)		Biological Impact Minimization (BIM)		No Federal Action (NFA)		Increased Developed (ID)	
Construction	**Emissions (tons CO_2)**	**Emissions (MT CO_2e/yr)**	**Emissions (tons CO_2)**	**Emissions (MT CO_2e/yr)**	**Emissions (tons CO_2)**	**Emissions (MT CO_2e/yr)**	**Emissions (tons CO_2)**	**Emissions (MT CO_2e/yr)**	**Emissions (tons CO_2)**	**Emissions (MT CO_2e/yr)**
Annual (2012)	1,575	1,429	1,284	1,165	1,207	1,095	1,075	975	1,722	1,562
Cumulative (2012-2032) = 2012 * (6.667/0.56)	18,750	17,010	15,286	13,867	14,369	13,036	12,798	11,610	20,500	18,597
Amortized Emissions (40 years)	425		347		326		290		465	
Annual Area/Operational	**Emissions (MT CO_2e/yr)**	**Percent**	**Emissions (MT CO_2e/yr)**	**Percent**	**Emissions (MT CO_2e/yr)**	**Percent**	**Emissions (MT CO_2e/yr)**	**Percent**	**Emissions (MT CO_2e/yr)**	**Percent**
Transportation:	104,330	74%	61,707	68%	56,120	69%	60,365	68%	73,838	68%
Area Source:	33	0%	33	0%	32	0%	29	0%	60	0%
Electricity:	18,297	13%	13,754	15%	11,837	14%	13,152	15%	16,617	15%
Natural Gas:	10,102	7%	9,770	11%	8,931	11%	9,741	11%	11,738	11%
Water & Wastewater:	1,467	1%	1,409	2%	1,328	2%	1,079	1%	1,681	2%
Solid Waste:	6,878	5%	3,910	4%	3,273	4%	3,671	4%	4,697	4%
Agriculture:	-	0%	-	0%	-	0%	-	0%	-	0%
Off-Road Equipment:	-	0%	-	0%	-	0%	-	0%	-	0%
Refrigerants:	-	0%	-	0%	-	0%	-	0%	-	0%
Sequestration:										
Purchase of Offsets:										
Total:	**141,533**	**100%**	**90,928**	100%	**81,846**	100%	**88,327**	100%	**109,096**	100%
Project Population	12,589		12,260		11,349		11,685		14,469	
Project Employment	2,854		480		196		299		609	
Project Service Population	15,443		12,740		11,545		11,984		15,078	
Annual Operational Emissions per Capita	**11.2**		**7.42**		**7.21**		**7.56**		**7.54**	
Annual Operational Emissions per SP	**9.2**		**7.14**		**7.09**		**7.37**		**7.24**	
Statewide Reductions	33,246		21,107		18,943		20,542		25,322	
Project Mitigation	7,896		4,671		4,248		4,569		5,589	
Total Reduction	41,142		25,778		23,191		25,111		30,910	
Achieved Percent Reduction	29.1%		28.3%		28.3%		28.4%		28.3%	
Reduction Goal	40,337		25,915		23,326		25,173		31,092	