

# EIR APPENDICES

## Appendix C – URBEMIS Air Pollutant Emission Data and Energy Use Calculations

CD Only

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Kurt Legleiter\Application Data\Urbemis\Version9a\Projects\SanBenito Santana Ranch.urb924

Project Name: San Benito County - Santana Ranch SP

Project Location: San Benito County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (lbs/day unmitigated)	39.90	165.96	78.88	0.06	500.23	8.52	508.75	104.50	7.84	112.33	15,323.14
2008 TOTALS (lbs/day mitigated)	39.90	152.82	78.88	0.06	35.06	6.29	41.35	7.35	5.78	13.13	15,323.14
2009 TOTALS (lbs/day unmitigated)	48.22	156.92	263.08	0.18	500.23	7.98	508.21	104.50	7.34	111.83	22,342.81
2009 TOTALS (lbs/day mitigated)	48.22	144.49	263.08	0.18	35.06	5.87	40.94	7.35	5.40	12.75	22,342.81
2010 TOTALS (lbs/day unmitigated)	46.87	56.25	242.24	0.18	1.00	2.88	3.88	0.36	2.59	2.95	22,332.99
2010 TOTALS (lbs/day mitigated)	46.87	56.25	242.24	0.18	1.00	2.88	3.88	0.36	2.59	2.95	22,332.99
2011 TOTALS (lbs/day unmitigated)	45.57	51.69	222.27	0.18	1.00	2.73	3.73	0.36	2.45	2.81	22,325.15
2011 TOTALS (lbs/day mitigated)	45.57	51.69	222.27	0.18	1.00	2.73	3.73	0.36	2.45	2.81	22,325.15
2012 TOTALS (lbs/day unmitigated)	44.35	47.27	203.29	0.18	1.00	2.52	3.52	0.36	2.26	2.61	22,318.52

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2012 TOTALS (lbs/day mitigated)	44.35	47.27	203.29	0.18	1.00	2.52	3.52	0.36	2.26	2.61	22,318.52
2013 TOTALS (lbs/day unmitigated)	43.19	43.15	186.08	0.18	1.00	2.29	3.28	0.36	2.04	2.40	22,312.60
2013 TOTALS (lbs/day mitigated)	43.19	43.15	186.08	0.18	1.00	2.29	3.28	0.36	2.04	2.40	22,312.60

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	73.07	15.45	58.65	0.00	0.17	0.17	18,968.35

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	105.00	200.09	1,013.33	1.05	182.65	37.81	111,991.10

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	178.07	215.54	1,071.98	1.05	182.82	37.98	130,959.45

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 11/24/2008-11/28/2008	6.58	58.61	32.77	0.01	5.28	2.79	8.07	1.10	2.56	3.67	5,000.26
Active Days: 5											
Demolition 11/24/2008-11/28/2008	6.58	58.61	32.77	0.01	5.28	2.79	8.07	1.10	2.56	3.67	5,000.26
Fugitive Dust	0.00	0.00	0.00	0.00	5.25	0.00	5.25	1.09	0.00	1.09	0.00
Demo Off Road Diesel	6.07	51.84	28.58	0.00	0.00	2.52	2.52	0.00	2.32	2.32	4,132.45
Demo On Road Diesel	0.44	6.61	2.27	0.01	0.02	0.26	0.28	0.01	0.24	0.25	735.83
Demo Worker Trips	0.08	0.16	1.92	0.00	0.01	0.00	0.01	0.00	0.00	0.01	131.97
Time Slice 12/1/2008-12/26/2008	10.48	87.90	46.73	0.00	500.01	4.47	504.48	104.42	4.11	108.54	7,454.09
Active Days: 20											
Fine Grading 11/30/2008-01/11/2009	10.48	87.90	46.73	0.00	500.01	4.47	504.48	104.42	4.11	108.54	7,454.09
Fine Grading Dust	0.00	0.00	0.00	0.00	500.00	0.00	500.00	104.42	0.00	104.42	0.00
Fine Grading Off Road Diesel	10.33	87.62	43.26	0.00	0.00	4.46	4.46	0.00	4.10	4.10	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.15	0.28	3.46	0.00	0.01	0.01	0.02	0.00	0.01	0.01	237.55

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Time Slice 12/29/2008-12/31/2008 Active Days: 3	<u>39.90</u>	<u>165.96</u>	<u>78.88</u>	<u>0.06</u>	<u>500.23</u>	<u>8.52</u>	<u>508.75</u>	<u>104.50</u>	<u>7.84</u>	<u>112.33</u>	<u>15,323.14</u>
Asphalt 12/28/2008-01/11/2009	29.42	78.06	32.15	0.06	0.22	4.05	4.27	0.07	3.72	3.80	7,869.05
Paving Off-Gas	22.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.59	21.14	10.74	0.00	0.00	1.82	1.82	0.00	1.68	1.68	1,418.81
Paving On Road Diesel	3.74	56.77	19.49	0.06	0.21	2.22	2.43	0.07	2.04	2.11	6,318.27
Paving Worker Trips	0.08	0.16	1.92	0.00	0.01	0.00	0.01	0.00	0.00	0.01	131.97
Fine Grading 11/30/2008-01/11/2009	10.48	87.90	46.73	0.00	500.01	4.47	504.48	104.42	4.11	108.54	7,454.09
Fine Grading Dust	0.00	0.00	0.00	0.00	500.00	0.00	500.00	104.42	0.00	104.42	0.00
Fine Grading Off Road Diesel	10.33	87.62	43.26	0.00	0.00	4.46	4.46	0.00	4.10	4.10	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.15	0.28	3.46	0.00	0.01	0.01	0.02	0.00	0.01	0.01	237.55
Time Slice 1/1/2009-1/9/2009 Active Days: 7	39.01	<u>156.92</u>	74.66	0.06	<u>500.23</u>	<u>7.98</u>	<u>508.21</u>	<u>104.50</u>	<u>7.34</u>	<u>111.83</u>	15,322.89
Asphalt 12/28/2008-01/11/2009	29.01	73.82	30.47	0.06	0.22	3.76	3.97	0.07	3.46	3.53	7,868.96
Paving Off-Gas	22.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	3.54	53.54	18.10	0.06	0.21	2.02	2.23	0.07	1.85	1.92	6,318.27
Paving Worker Trips	0.08	0.14	1.77	0.00	0.01	0.00	0.01	0.00	0.00	0.01	131.88
Fine Grading 11/30/2008-01/11/2009	9.99	83.10	44.20	0.00	500.01	4.22	504.23	104.42	3.88	108.31	7,453.92
Fine Grading Dust	0.00	0.00	0.00	0.00	500.00	0.00	500.00	104.42	0.00	104.42	0.00
Fine Grading Off Road Diesel	9.86	82.84	41.01	0.00	0.00	4.21	4.21	0.00	3.88	3.88	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.14	0.26	3.19	0.00	0.01	0.01	0.02	0.00	0.01	0.01	237.38

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Time Slice 1/12/2009-8/7/2009	15.72	60.69	262.16	0.18	0.99	3.08	4.07	0.36	2.77	3.13	22,274.07
Active Days: 150											
Building 01/11/2009-08/22/2013	15.72	60.69	262.16	0.18	0.99	3.08	4.07	0.36	2.77	3.13	22,274.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	1.45	17.01	13.62	0.02	0.09	0.64	0.73	0.03	0.59	0.62	2,599.85
Building Worker Trips	9.91	18.97	233.91	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,414.93
Time Slice 8/10/2009-12/31/2009	<b><u>48.22</u></b>	60.76	<b><u>263.08</u></b>	<b><u>0.18</u></b>	1.00	3.08	4.08	0.36	2.77	3.13	<b><u>22,342.81</u></b>
Active Days: 104											
Building 01/11/2009-08/22/2013	15.72	60.69	262.16	0.18	0.99	3.08	4.07	0.36	2.77	3.13	22,274.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	1.45	17.01	13.62	0.02	0.09	0.64	0.73	0.03	0.59	0.62	2,599.85
Building Worker Trips	9.91	18.97	233.91	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,414.93
Coating 08/08/2009-09/05/2013	32.50	0.07	0.92	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.74
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	0.92	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.74
Time Slice 1/1/2010-12/31/2010	<b><u>46.87</u></b>	<b><u>56.25</u></b>	<b><u>242.24</u></b>	<b><u>0.18</u></b>	<b><u>1.00</u></b>	<b><u>2.88</u></b>	<b><u>3.88</u></b>	<b><u>0.36</u></b>	<b><u>2.59</u></b>	<b><u>2.95</u></b>	<b><u>22,332.99</u></b>
Active Days: 261											
Building 01/11/2009-08/22/2013	14.38	56.19	241.39	0.18	0.99	2.88	3.87	0.36	2.59	2.94	22,264.28
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.36	15.66	12.78	0.02	0.09	0.58	0.68	0.03	0.53	0.56	2,599.82
Building Worker Trips	8.94	17.21	214.30	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,405.19
Coating 08/08/2009-09/05/2013	32.50	0.07	0.85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.70
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	0.85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.70

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Time Slice 1/3/2011-12/30/2011	<u>45.57</u>	<u>51.69</u>	<u>222.27</u>	<b>0.18</b>	<u>1.00</u>	<u>2.73</u>	<u>3.73</u>	<u>0.36</u>	<u>2.45</u>	<u>2.81</u>	<u>22,325.15</u>
Active Days: 260											
Building 01/11/2009-08/22/2013	13.08	51.63	221.50	0.18	0.99	2.73	3.72	0.36	2.45	2.80	22,256.47
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.26	14.24	11.93	0.02	0.09	0.53	0.62	0.03	0.48	0.51	2,599.78
Building Worker Trips	8.05	15.54	195.62	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,397.41
Coating 08/08/2009-09/05/2013	32.49	0.06	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.67
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.67
Time Slice 1/2/2012-12/31/2012	<u>44.35</u>	<u>47.27</u>	<u>203.29</u>	<b>0.18</b>	<u>1.00</u>	<u>2.52</u>	<u>3.52</u>	<u>0.36</u>	<u>2.26</u>	<u>2.61</u>	<u>22,318.52</u>
Active Days: 261											
Building 01/11/2009-08/22/2013	11.86	47.21	202.59	0.18	0.99	2.51	3.51	0.36	2.25	2.61	22,249.88
Building Off Road Diesel	3.48	20.42	13.62	0.00	0.00	1.42	1.42	0.00	1.31	1.31	2,259.28
Building Vendor Trips	1.16	12.80	11.09	0.02	0.09	0.47	0.56	0.03	0.43	0.46	2,599.75
Building Worker Trips	7.22	13.99	177.88	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,390.84
Coating 08/08/2009-09/05/2013	32.49	0.06	0.70	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.65
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	0.70	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.65

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Time Slice 1/1/2013-8/22/2013	<u>43.19</u>	<u>43.15</u>	<u>186.08</u>	<u>0.18</u>	<u>1.00</u>	<u>2.29</u>	<u>3.28</u>	<u>0.36</u>	<u>2.04</u>	<u>2.40</u>	<u>22,312.60</u>
Active Days: 168											
Building 01/11/2009-08/22/2013	10.70	43.10	185.44	0.18	0.99	2.28	3.28	0.36	2.04	2.40	22,243.98
Building Off Road Diesel	3.19	19.04	13.34	0.00	0.00	1.26	1.26	0.00	1.16	1.16	2,259.28
Building Vendor Trips	1.07	11.42	10.26	0.02	0.09	0.42	0.51	0.03	0.38	0.41	2,599.73
Building Worker Trips	6.45	12.64	161.85	0.16	0.90	0.60	1.50	0.33	0.50	0.82	17,384.97
Coating 08/08/2009-09/05/2013	32.49	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Time Slice 8/23/2013-9/5/2013	32.49	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Active Days: 10											
Coating 08/08/2009-09/05/2013	32.49	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62

Phase Assumptions

Phase: Demolition 11/24/2008 - 11/28/2008 - Type Your Description Here

Building Volume Total (cubic feet): 350000

Building Volume Daily (cubic feet): 12500

On Road Truck Travel (VMT): 173.61

Off-Road Equipment:

3 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Fine Grading 11/30/2008 - 1/11/2009 - Default Fine Site Grading Description

Total Acres Disturbed: 291.8

Maximum Daily Acreage Disturbed: 25

Fugitive Dust Level of Detail: Default



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20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2008 - 1/11/2009 - Default Paving Description

Acres to be Paved: 92.4

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 1/11/2009 - 8/22/2013 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2009 - 9/5/2013 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 100

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 11/24/2008-11/28/2008 Active Days: 5	6.58	58.61	32.77	0.01	5.28	2.79	8.07	1.10	2.56	3.67	5,000.26
Demolition 11/24/2008-11/28/2008	6.58	58.61	32.77	0.01	5.28	2.79	8.07	1.10	2.56	3.67	5,000.26
Fugitive Dust	0.00	0.00	0.00	0.00	5.25	0.00	5.25	1.09	0.00	1.09	0.00
Demo Off Road Diesel	6.07	51.84	28.58	0.00	0.00	2.52	2.52	0.00	2.32	2.32	4,132.45
Demo On Road Diesel	0.44	6.61	2.27	0.01	0.02	0.26	0.28	0.01	0.24	0.25	735.83
Demo Worker Trips	0.08	0.16	1.92	0.00	0.01	0.00	0.01	0.00	0.00	0.01	131.97
Time Slice 12/1/2008-12/26/2008 Active Days: 20	10.48	74.76	46.73	0.00	34.85	2.24	37.09	7.28	2.06	9.34	7,454.09
Fine Grading 11/30/2008-01/11/2009	10.48	74.76	46.73	0.00	34.85	2.24	37.09	7.28	2.06	9.34	7,454.09
Fine Grading Dust	0.00	0.00	0.00	0.00	34.84	0.00	34.84	7.28	0.00	7.28	0.00
Fine Grading Off Road Diesel	10.33	74.48	43.26	0.00	0.00	2.23	2.23	0.00	2.05	2.05	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.15	0.28	3.46	0.00	0.01	0.01	0.02	0.00	0.01	0.01	237.55

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Time Slice 12/29/2008-12/31/2008	<u>39.90</u>	<u>152.82</u>	<u>78.88</u>	<u>0.06</u>	<u>35.06</u>	<u>6.29</u>	<u>41.35</u>	<u>7.35</u>	<u>5.78</u>	<u>13.13</u>	<u>15,323.14</u>
Active Days: 3											
Asphalt 12/28/2008-01/11/2009	29.42	78.06	32.15	0.06	0.22	4.05	4.27	0.07	3.72	3.80	7,869.05
Paving Off-Gas	22.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.59	21.14	10.74	0.00	0.00	1.82	1.82	0.00	1.68	1.68	1,418.81
Paving On Road Diesel	3.74	56.77	19.49	0.06	0.21	2.22	2.43	0.07	2.04	2.11	6,318.27
Paving Worker Trips	0.08	0.16	1.92	0.00	0.01	0.00	0.01	0.00	0.00	0.01	131.97
Fine Grading 11/30/2008-01/11/2009	10.48	74.76	46.73	0.00	34.85	2.24	37.09	7.28	2.06	9.34	7,454.09
Fine Grading Dust	0.00	0.00	0.00	0.00	34.84	0.00	34.84	7.28	0.00	7.28	0.00
Fine Grading Off Road Diesel	10.33	74.48	43.26	0.00	0.00	2.23	2.23	0.00	2.05	2.05	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.15	0.28	3.46	0.00	0.01	0.01	0.02	0.00	0.01	0.01	237.55
Time Slice 1/1/2009-1/9/2009	39.01	<u>144.49</u>	74.66	0.06	<u>35.06</u>	<u>5.87</u>	<u>40.94</u>	<u>7.35</u>	<u>5.40</u>	<u>12.75</u>	15,322.89
Active Days: 7											
Asphalt 12/28/2008-01/11/2009	29.01	73.82	30.47	0.06	0.22	3.76	3.97	0.07	3.46	3.53	7,868.96
Paving Off-Gas	22.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	3.54	53.54	18.10	0.06	0.21	2.02	2.23	0.07	1.85	1.92	6,318.27
Paving Worker Trips	0.08	0.14	1.77	0.00	0.01	0.00	0.01	0.00	0.00	0.01	131.88
Fine Grading 11/30/2008-01/11/2009	9.99	70.67	44.20	0.00	34.85	2.11	36.96	7.28	1.94	9.22	7,453.92
Fine Grading Dust	0.00	0.00	0.00	0.00	34.84	0.00	34.84	7.28	0.00	7.28	0.00
Fine Grading Off Road Diesel	9.86	70.41	41.01	0.00	0.00	2.11	2.11	0.00	1.94	1.94	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.14	0.26	3.19	0.00	0.01	0.01	0.02	0.00	0.01	0.01	237.38

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Time Slice 1/12/2009-8/7/2009	15.72	60.69	262.16	0.18	0.99	3.08	4.07	0.36	2.77	3.13	22,274.07
Active Days: 150											
Building 01/11/2009-08/22/2013	15.72	60.69	262.16	0.18	0.99	3.08	4.07	0.36	2.77	3.13	22,274.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	1.45	17.01	13.62	0.02	0.09	0.64	0.73	0.03	0.59	0.62	2,599.85
Building Worker Trips	9.91	18.97	233.91	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,414.93
Time Slice 8/10/2009-12/31/2009	<b><u>48.22</u></b>	60.76	<b><u>263.08</u></b>	<b><u>0.18</u></b>	1.00	3.08	4.08	0.36	2.77	3.13	<b><u>22,342.81</u></b>
Active Days: 104											
Building 01/11/2009-08/22/2013	15.72	60.69	262.16	0.18	0.99	3.08	4.07	0.36	2.77	3.13	22,274.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	1.45	17.01	13.62	0.02	0.09	0.64	0.73	0.03	0.59	0.62	2,599.85
Building Worker Trips	9.91	18.97	233.91	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,414.93
Coating 08/08/2009-09/05/2013	32.50	0.07	0.92	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.74
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	0.92	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.74
Time Slice 1/1/2010-12/31/2010	<b><u>46.87</u></b>	<b><u>56.25</u></b>	<b><u>242.24</u></b>	<b><u>0.18</u></b>	<b><u>1.00</u></b>	<b><u>2.88</u></b>	<b><u>3.88</u></b>	<b><u>0.36</u></b>	<b><u>2.59</u></b>	<b><u>2.95</u></b>	<b><u>22,332.99</u></b>
Active Days: 261											
Building 01/11/2009-08/22/2013	14.38	56.19	241.39	0.18	0.99	2.88	3.87	0.36	2.59	2.94	22,264.28
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.36	15.66	12.78	0.02	0.09	0.58	0.68	0.03	0.53	0.56	2,599.82
Building Worker Trips	8.94	17.21	214.30	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,405.19
Coating 08/08/2009-09/05/2013	32.50	0.07	0.85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.70
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	0.85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.70

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Time Slice 1/3/2011-12/30/2011	<u>45.57</u>	<u>51.69</u>	<u>222.27</u>	<b>0.18</b>	<u>1.00</u>	<u>2.73</u>	<u>3.73</u>	<u>0.36</u>	<u>2.45</u>	<u>2.81</u>	<u>22,325.15</u>
Active Days: 260											
Building 01/11/2009-08/22/2013	13.08	51.63	221.50	0.18	0.99	2.73	3.72	0.36	2.45	2.80	22,256.47
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.26	14.24	11.93	0.02	0.09	0.53	0.62	0.03	0.48	0.51	2,599.78
Building Worker Trips	8.05	15.54	195.62	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,397.41
Coating 08/08/2009-09/05/2013	32.49	0.06	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.67
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	0.77	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.67
Time Slice 1/2/2012-12/31/2012	<u>44.35</u>	<u>47.27</u>	<u>203.29</u>	<b>0.18</b>	<u>1.00</u>	<u>2.52</u>	<u>3.52</u>	<u>0.36</u>	<u>2.26</u>	<u>2.61</u>	<u>22,318.52</u>
Active Days: 261											
Building 01/11/2009-08/22/2013	11.86	47.21	202.59	0.18	0.99	2.51	3.51	0.36	2.25	2.61	22,249.88
Building Off Road Diesel	3.48	20.42	13.62	0.00	0.00	1.42	1.42	0.00	1.31	1.31	2,259.28
Building Vendor Trips	1.16	12.80	11.09	0.02	0.09	0.47	0.56	0.03	0.43	0.46	2,599.75
Building Worker Trips	7.22	13.99	177.88	0.16	0.90	0.62	1.52	0.33	0.52	0.84	17,390.84
Coating 08/08/2009-09/05/2013	32.49	0.06	0.70	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.65
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	0.70	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.65

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Time Slice 1/1/2013-8/22/2013 Active Days: 168	<u>43.19</u>	<u>43.15</u>	<u>186.08</u>	<u>0.18</u>	<u>1.00</u>	<u>2.29</u>	<u>3.28</u>	<u>0.36</u>	<u>2.04</u>	<u>2.40</u>	<u>22,312.60</u>
Building 01/11/2009-08/22/2013	10.70	43.10	185.44	0.18	0.99	2.28	3.28	0.36	2.04	2.40	22,243.98
Building Off Road Diesel	3.19	19.04	13.34	0.00	0.00	1.26	1.26	0.00	1.16	1.16	2,259.28
Building Vendor Trips	1.07	11.42	10.26	0.02	0.09	0.42	0.51	0.03	0.38	0.41	2,599.73
Building Worker Trips	6.45	12.64	161.85	0.16	0.90	0.60	1.50	0.33	0.50	0.82	17,384.97
Coating 08/08/2009-09/05/2013	32.49	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Time Slice 8/23/2013-9/5/2013 Active Days: 10	32.49	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Coating 08/08/2009-09/05/2013	32.49	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62
Architectural Coating	32.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.62

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 11/30/2008 - 1/11/2009 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

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PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Scrapers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Excavators, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	1.14	14.86	6.81	0.00	0.03	0.03	18,884.46
Hearth - No Summer Emissions							
Landscape	9.06	0.59	51.84	0.00	0.14	0.14	83.89
Consumer Products	53.42						
Architectural Coatings	9.45						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>73.07</b>	<b>15.45</b>	<b>58.65</b>	<b>0.00</b>	<b>0.17</b>	<b>0.17</b>	<b>18,968.35</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	84.95	167.90	850.03	0.89	154.32	31.94	94,599.93
Elementary school	8.58	10.21	51.75	0.05	9.13	1.89	5,601.11
Regnl shop. center	11.47	21.98	111.55	0.11	19.20	3.98	11,790.06
TOTALS (lbs/day, unmitigated)	105.00	200.09	1,013.33	1.05	182.65	37.81	111,991.10

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 5.35 Nonresidential Trip % Reduction: 14.57

Analysis Year: 2015 Temperature (F): 70 Season: Summer

Erfac: Version : Erfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	364.00	9.06	dwelling units	1,092.00	9,891.44	87,660.91
Elementary school		1.10	students	800.00	881.68	5,184.27
Regnl shop. center		36.69	1000 sq ft	65.34	2,397.02	10,901.65
					13,170.14	103,746.83

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	35.9	0.3	99.4	0.3



Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck < 3750 lbs	18.1	0.6	94.4	5.0
Light Truck 3751-5750 lbs	19.2	0.5	99.0	0.5
Med Truck 5751-8500 lbs	8.8	0.0	98.9	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	1.2	0.0	41.7	58.3
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	4.6	0.0	2.2	97.8
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	7.6	50.0	50.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	84.6	15.4

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Rural Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Elementary school				20.0	10.0	70.0
Regnl shop. center				2.0	1.0	97.0

Operational Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Kurt Legleiter\Application Data\Urbemis\Version9a\Projects\SanBenito Santana WWTP Mobile.urb924

Project Name: Santana WWTP Mobile Emissions

Project Location: San Benito County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.05	0.21	0.59	0.00	0.04	0.01	43.55

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.05	0.21	0.59	0.00	0.04	0.01	43.55

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
WWTP	0.05	0.21	0.59	0.00	0.04	0.01	43.55
TOTALS (lbs/day, unmitigated)	0.05	0.21	0.59	0.00	0.04	0.01	43.55

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 70 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
WWTP		3.00	unknown	1.00	3.00	20.75
					3.00	20.75

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	34.0	1.7	97.7	0.6
Light Truck < 3750 lbs	0.0	2.2	90.1	7.7
Light Truck 3751-5750 lbs	0.0	1.1	98.4	0.5
Med Truck 5751-8500 lbs	0.0	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	65.0	35.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	41.7	58.3

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	66.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	2.0	98.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	67.1	32.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Rural Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
WWTP				34.0	17.0	49.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Kurt Legleiter\Application Data\Urbemis\Version9a\Projects\SanBenito Santana Ranch.urb924

Project Name: San Benito County - Santana Ranch SP

Project Location: San Benito County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (lbs/day unmitigated)	39.90	165.96	78.88	0.06	500.23	8.52	508.75	104.50	7.84	112.33	15,323.14
2008 TOTALS (lbs/day mitigated)	39.90	152.82	78.88	0.06	35.06	6.29	41.35	7.35	5.78	13.13	15,323.14
2009 TOTALS (lbs/day unmitigated)	48.22	156.92	263.08	0.18	500.23	7.98	508.21	104.50	7.34	111.83	22,342.81
2009 TOTALS (lbs/day mitigated)	48.22	144.49	263.08	0.18	35.06	5.87	40.94	7.35	5.40	12.75	22,342.81
2010 TOTALS (lbs/day unmitigated)	46.87	56.25	242.24	0.18	1.00	2.88	3.88	0.36	2.59	2.95	22,332.99
2010 TOTALS (lbs/day mitigated)	46.87	56.25	242.24	0.18	1.00	2.88	3.88	0.36	2.59	2.95	22,332.99
2011 TOTALS (lbs/day unmitigated)	45.57	51.69	222.27	0.18	1.00	2.73	3.73	0.36	2.45	2.81	22,325.15
2011 TOTALS (lbs/day mitigated)	45.57	51.69	222.27	0.18	1.00	2.73	3.73	0.36	2.45	2.81	22,325.15
2012 TOTALS (lbs/day unmitigated)	44.35	47.27	203.29	0.18	1.00	2.52	3.52	0.36	2.26	2.61	22,318.52

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2012 TOTALS (lbs/day mitigated)	44.35	47.27	203.29	0.18	1.00	2.52	3.52	0.36	2.26	2.61	22,318.52
2013 TOTALS (lbs/day unmitigated)	43.19	43.15	186.08	0.18	1.00	2.29	3.28	0.36	2.04	2.40	22,312.60
2013 TOTALS (lbs/day mitigated)	43.19	43.15	186.08	0.18	1.00	2.29	3.28	0.36	2.04	2.40	22,312.60

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	248.90	35.19	848.05	2.58	134.29	129.27	46,862.50

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	116.56	231.65	1,150.39	1.05	182.65	37.81	110,749.67

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	365.46	266.84	1,998.44	3.63	316.94	167.08	157,612.17

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	1.14	14.86	6.81	0.00	0.03	0.03	18,884.46
Hearth	184.89	20.33	841.24	2.58	134.26	129.24	27,978.04
Landscaping - No Winter Emissions							
Consumer Products	53.42						
Architectural Coatings	9.45						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>248.90</b>	<b>35.19</b>	<b>848.05</b>	<b>2.58</b>	<b>134.29</b>	<b>129.27</b>	<b>46,862.50</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Single family housing	96.46	194.39	959.31	0.89	154.32	31.94	93,550.99
Elementary school	6.69	11.82	59.67	0.05	9.13	1.89	5,539.07
Regnl shop. center	13.41	25.44	131.41	0.11	19.20	3.98	11,659.61
<b>TOTALS (lbs/day, unmitigated)</b>	<b>116.56</b>	<b>231.65</b>	<b>1,150.39</b>	<b>1.05</b>	<b>182.65</b>	<b>37.81</b>	<b>110,749.67</b>

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:



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Residential Trip % Reduction: 5.35 Nonresidential Trip % Reduction: 14.57

Analysis Year: 2015 Temperature (F): 50 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	364.00	9.06	dwelling units	1,092.00	9,891.44	87,660.91
Elementary school		1.10	students	800.00	881.68	5,184.27
Regnl shop. center		36.69	1000 sq ft	65.34	2,397.02	10,901.65
					13,170.14	103,746.83

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	35.9	0.3	99.4	0.3
Light Truck < 3750 lbs	18.1	0.6	94.4	5.0
Light Truck 3751-5750 lbs	19.2	0.5	99.0	0.5
Med Truck 5751-8500 lbs	8.8	0.0	98.9	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	1.2	0.0	41.7	58.3
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	4.6	0.0	2.2	97.8
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	7.6	50.0	50.0	0.0
School Bus	0.1	0.0	0.0	100.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Motor Home	1.3	0.0	84.6	15.4

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Rural Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Regnl shop. center				2.0	1.0	97.0

Operational Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Kurt Legleiter\Application Data\Urbemis\Version9a\Projects\SanBenito Santana WWTP Mobile.urb924

Project Name: Santana WWTP Mobile Emissions

Project Location: San Benito County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.05	0.23	0.72	0.00	0.04	0.01	43.46

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.05	0.23	0.72	0.00	0.04	0.01	43.46

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
WWTP	0.05	0.23	0.72	0.00	0.04	0.01	43.46
TOTALS (lbs/day, unmitigated)	0.05	0.23	0.72	0.00	0.04	0.01	43.46

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 50 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
WWTP		3.00	unknown	1.00	3.00	20.75
					3.00	20.75

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	34.0	1.7	97.7	0.6
Light Truck < 3750 lbs	0.0	2.2	90.1	7.7
Light Truck 3751-5750 lbs	0.0	1.1	98.4	0.5
Med Truck 5751-8500 lbs	0.0	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	65.0	35.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	41.7	58.3

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	66.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	2.0	98.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	67.1	32.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Rural Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
WWTP				34.0	17.0	49.0

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\Kurt Legleiter\Application Data\Urbemis\Version9a\Projects\SanBenito Santana Ranch.urb924

Project Name: San Benito County - Santana Ranch SP

Project Location: San Benito County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (tons/year unmitigated)	0.18	1.27	0.67	0.00	5.76	0.06	5.83	1.20	0.06	1.26	110.03
2008 TOTALS (tons/year mitigated)	0.18	1.12	0.67	0.00	0.41	0.04	0.45	0.09	0.04	0.12	110.03
Percent Reduction	0.00	11.86	0.00	0.00	92.81	39.80	92.23	92.81	39.81	90.32	0.00
2009 TOTALS (tons/year unmitigated)	3.82	8.26	33.60	0.02	1.88	0.42	2.30	0.41	0.38	0.79	2,886.01
2009 TOTALS (tons/year mitigated)	3.82	8.22	33.60	0.02	0.25	0.41	0.66	0.07	0.37	0.44	2,886.01
Percent Reduction	0.00	0.53	0.00	0.00	86.73	1.76	71.23	82.71	1.80	43.98	0.00
2010 TOTALS (tons/year unmitigated)	6.12	7.34	31.61	0.02	0.13	0.38	0.51	0.05	0.34	0.38	2,914.46
2010 TOTALS (tons/year mitigated)	6.12	7.34	31.61	0.02	0.13	0.38	0.51	0.05	0.34	0.38	2,914.46
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011 TOTALS (tons/year unmitigated)	5.92	6.72	28.90	0.02	0.13	0.35	0.48	0.05	0.32	0.36	2,902.27

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2011 TOTALS (tons/year mitigated)	5.92	6.72	28.90	0.02	0.13	0.35	0.48	0.05	0.32	0.36	2,902.27
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012 TOTALS (tons/year unmitigated)	5.79	6.17	26.53	0.02	0.13	0.33	0.46	0.05	0.29	0.34	2,912.57
2012 TOTALS (tons/year mitigated)	5.79	6.17	26.53	0.02	0.13	0.33	0.46	0.05	0.29	0.34	2,912.57
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013 TOTALS (tons/year unmitigated)	3.79	3.62	15.63	0.02	0.08	0.19	0.28	0.03	0.17	0.20	1,874.60
2013 TOTALS (tons/year mitigated)	3.79	3.62	15.63	0.02	0.08	0.19	0.28	0.03	0.17	0.20	1,874.60
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	20.07	3.39	40.32	0.10	5.51	5.30	4,343.51

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	19.86	38.43	193.28	0.19	33.33	6.91	20,362.86

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	39.93	41.82	233.60	0.29	38.84	12.21	24,706.37

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated









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2013	3.79	3.62	15.63	0.02	0.08	0.19	0.28	0.03	0.17	0.20	1,874.60
Building 01/11/2009-08/22/2013	0.90	3.62	15.58	0.02	0.08	0.19	0.28	0.03	0.17	0.20	1,868.49
Building Off Road Diesel	0.27	1.60	1.12	0.00	0.00	0.11	0.11	0.00	0.10	0.10	189.78
Building Vendor Trips	0.09	0.96	0.86	0.00	0.01	0.04	0.04	0.00	0.03	0.03	218.38
Building Worker Trips	0.54	1.06	13.60	0.01	0.08	0.05	0.13	0.03	0.04	0.07	1,460.34
Coating 08/08/2009-09/05/2013	2.89	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.11
Architectural Coating	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.11

Phase Assumptions

Phase: Demolition 11/24/2008 - 11/28/2008 - Type Your Description Here

Building Volume Total (cubic feet): 350000

Building Volume Daily (cubic feet): 12500

On Road Truck Travel (VMT): 173.61

Off-Road Equipment:

3 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Fine Grading 11/30/2008 - 1/11/2009 - Default Fine Site Grading Description

Total Acres Disturbed: 291.8

Maximum Daily Acreage Disturbed: 25

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

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- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2008 - 1/11/2009 - Default Paving Description

Acres to be Paved: 92.4

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 1/11/2009 - 8/22/2013 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2009 - 9/5/2013 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 100

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

ROG

NOx

CO

SO2

PM10 Dust

PM10 Exhaust

PM10

PM2.5 Dust

PM2.5 Exhaust

PM2.5

CO2







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2013	3.79	3.62	15.63	0.02	0.08	0.19	0.28	0.03	0.17	0.20	1,874.60
Building 01/11/2009-08/22/2013	0.90	3.62	15.58	0.02	0.08	0.19	0.28	0.03	0.17	0.20	1,868.49
Building Off Road Diesel	0.27	1.60	1.12	0.00	0.00	0.11	0.11	0.00	0.10	0.10	189.78
Building Vendor Trips	0.09	0.96	0.86	0.00	0.01	0.04	0.04	0.00	0.03	0.03	218.38
Building Worker Trips	0.54	1.06	13.60	0.01	0.08	0.05	0.13	0.03	0.04	0.07	1,460.34
Coating 08/08/2009-09/05/2013	2.89	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.11
Architectural Coating	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.11

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 11/30/2008 - 1/11/2009 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Scrapers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:



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NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Excavators, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.21	2.71	1.24	0.00	0.01	0.01	3,446.41
Hearth	7.57	0.63	34.41	0.10	5.49	5.28	889.55
Landscape	0.82	0.05	4.67	0.00	0.01	0.01	7.55
Consumer Products	9.75						
Architectural Coatings	1.72						
<b>TOTALS (tons/year, unmitigated)</b>	<b>20.07</b>	<b>3.39</b>	<b>40.32</b>	<b>0.10</b>	<b>5.51</b>	<b>5.30</b>	<b>4,343.51</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	16.20	32.25	161.78	0.16	28.16	5.83	17,200.68
Elementary school	1.45	1.96	9.93	0.01	1.67	0.35	1,018.43
Regnl shop. center	2.21	4.22	21.57	0.02	3.50	0.73	2,143.75
TOTALS (tons/year, unmitigated)	19.86	38.43	193.28	0.19	33.33	6.91	20,362.86

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 5.35 Nonresidential Trip % Reduction: 14.57

Analysis Year: 2015 Season: Annual

Erfac: Version : Erfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	364.00	9.06	dwelling units	1,092.00	9,891.44	87,660.91
Elementary school		1.10	students	800.00	881.68	5,184.27
Regnl shop. center		36.69	1000 sq ft	65.34	2,397.02	10,901.65
					13,170.14	103,746.83

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	35.9	0.3	99.4	0.3

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck < 3750 lbs	18.1	0.6	94.4	5.0
Light Truck 3751-5750 lbs	19.2	0.5	99.0	0.5
Med Truck 5751-8500 lbs	8.8	0.0	98.9	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	1.2	0.0	41.7	58.3
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	4.6	0.0	2.2	97.8
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	7.6	50.0	50.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	84.6	15.4

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Rural Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Elementary school				20.0	10.0	70.0
Regnl shop. center				2.0	1.0	97.0

Operational Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\Kurt Legleiter\Application Data\Urbemis\Version9a\Projects\SanBenito Santana WWTP Mobile.urb924

Project Name: Santana WWTP Mobile Emissions

Project Location: San Benito County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.01	0.04	0.12	0.00	0.01	0.00	7.94

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.01	0.04	0.12	0.00	0.01	0.00	7.94

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
WWTP	0.01	0.04	0.12	0.00	0.01	0.00	7.94
TOTALS (tons/year, unmitigated)	0.01	0.04	0.12	0.00	0.01	0.00	7.94

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
WWTP		3.00	unknown	1.00	3.00	20.75
					3.00	20.75

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	34.0	1.7	97.7	0.6
Light Truck < 3750 lbs	0.0	2.2	90.1	7.7
Light Truck 3751-5750 lbs	0.0	1.1	98.4	0.5
Med Truck 5751-8500 lbs	0.0	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	65.0	35.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	41.7	58.3

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	66.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	2.0	98.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	67.1	32.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Rural Trip Length (miles)	11.8	8.3	7.1	11.8	4.4	4.4
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
WWTP				34.0	17.0	49.0

**WASTEWATER PLANT EMISSIONS**

**EVAPORATIVE EMISSIONS**

FLOW RATE: MGD  
0.6

PROCESS	TRI-TAC FLOW BASED ROG EMISSION FACTOR (LB/YR/MGD)	NUMBER OF PROCESSES	FLOW	UNCONTROLLED ROG EMISSIONS (LB/YR)	EMISSIONS CONTROL	CONTROL EFFICIENCY	CONTROLLED ROG EMISSIONS (LBS/YR)
HEADWORKS	0.1	1	0.6	0.064	ENCLOSED, DUCTED	0.9	0.006
PRIMARY SEDIMENTATION	40	1	0.6	0.000	ENCLOSED, DUCTED	0.9	0.000
FLOW EQUALIZATION	30	0	2.0	0.000	ENCLOSED, DUCTED	0.9	0.000
DIFFUSED AIR ACTIVATED SLUDGE	190	1	0.6	121.600	ENCLOSED, DUCTED	0.9	12.160
SECONDARY CLARIFIERS	12	1	0.6	7.680	ENCLOSED, DUCTED	0.9	0.768
PERCOLATION PONDS	0.6	1	0.6	0.384	NONE		0.384
ENCLOSED SOLIDS HANDLING	7	0	3.0	0.000	ENCLOSED, DUCTED	0	0.000

Source: TriTac 1994

TOTAL EMISSIONS (LBS/YR)	13.3
(TONS/YR)	0.007

**MOBILE SOURCE EMISSIONS**

EMPLOYEE TRIPS/DAY 1 LIGHT AUTO  
 DELIVERY/WASTE HAUL TRIPS/DAY 2 MED-HVY TRUCK  
 YEAR 2010

	ROG	NOX	CO	SO2	PM10	CO2
SUMMER (DAILY)	0.05	0.21	0.59	0	0.04	43.55
WINTER (DAILY)	0.05	0.23	0.72	0	0.04	43.46
ANNUAL (TONS)	0.01	0.04	0.12	0	0.01	7.94
*Mobile source emissions were calculated using the URBEMIS2007 computer program based on default model parameters for San Benito County.						

**TOTAL EMISSIONS**

	ROG	NOX	CO	SO2	PM10	CO2
SUMMER (DAILY)	0.09	0.21	0.59	0	0.04	43.55
WINTER (DAILY)	0.09	0.23	0.72	0	0.04	43.46
ANNUAL (TONS)	0.02	0.04	0.12	0	0.01	7.94





```

-----*-----*-----*-----
1. Recpt 1 * 262 * 2.2 * .0 1.9 .0 .0 .0 .0 .2 .0
2. Recpt 2 * 265 * 3.5 * .0 3.3 .0 .0 .0 .0 .2 .0
3. Recpt 3 * 263 * 2.2 * .0 1.9 .0 .0 .0 .0 .2 .0
4. Recpt 4 * 265 * 3.3 * .0 3.0 .0 .0 .0 .0 .2 .0
5. Recpt 5 * 275 * 3.5 * .0 3.4 .0 .0 .0 .0 .1 .0
6. Recpt 6 * 272 * 3.9 * .0 3.5 .0 .0 .0 .0 .2 .0
7. Recpt 7 * 275 * 3.1 * .0 2.8 .0 .0 .0 .0 .1 .0
8. Recpt 8 * 271 * 3.8 * .0 3.4 .0 .0 .0 .0 .2 .0

```

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

```

*          CONC/LINK
*          (PPM)
RECEPTOR * I J K L M N O P
-----*-----
1. Recpt 1 * .0 .0 .0 .0 .0 .0 .0 .0
2. Recpt 2 * .0 .0 .0 .0 .0 .0 .0 .0
3. Recpt 3 * .0 .0 .0 .0 .0 .0 .0 .0
4. Recpt 4 * .0 .0 .0 .0 .0 .0 .0 .0
5. Recpt 5 * .0 .0 .0 .0 .0 .0 .0 .0
6. Recpt 6 * .0 .0 .0 .0 .0 .0 .0 .0
7. Recpt 7 * .0 .0 .1 .0 .0 .0 .0 .0
8. Recpt 8 * .0 .0 .1 .0 .0 .0 .0 .0

```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: ValleyView Rd & Sunnyslope Rd  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S      Z0= 100. CM      ALT= 0. (M)  
BRG= WORST CASE      VD= .0 CM/S  
CLAS= 7 (G)      VS= .0 CM/S  
MIXH= 1000. M      AMB= .0 PPM  
SIGTH= 10. DEGREES      TEMP= 40.0 DEGREE (C)

II. LINK VARIABLES

```

LINK * LINK COORDINATES (M) * EF H W
DESCRIPTION * X1 Y1 X2 Y2 * TYPE VPH (G/MI) (M) (M)
-----*-----
A. Link A * -900 -2 -300 -2 * AG 905 2.7 .0 12.4
B. Link B * -300 -2 0 -2 * AG 905 15.6 .0 12.4
C. Link C * 0 -2 300 -2 * AG 891 5.5 .0 12.4
D. Link D * 300 -2 900 -2 * AG 891 2.7 .0 12.4
E. Link E * 900 2 300 2 * AG 731 2.7 .0 12.4
F. Link F * 300 2 0 2 * AG 731 15.6 .0 12.4
G. Link G * 0 2 -300 2 * AG 768 4.4 .0 12.4
H. Link H * -300 2 -900 2 * AG 768 2.7 .0 12.4
I. Link I * -2 900 -2 300 * AG 152 2.7 .0 10.2
J. Link J * -2 300 -2 0 * AG 152 5.5 .0 10.2
K. Link K * -2 0 -2 -300 * AG 0 .0 .0 10.2
L. Link L * -2 -300 -2 -900 * AG 0 .0 .0 10.2
M. Link M * 2 -900 2 -300 * AG 0 .0 .0 10.2
N. Link N * 2 -300 2 0 * AG 0 .0 .0 10.2
O. Link O * 2 0 2 300 * AG 129 15.6 .0 10.2
P. Link P * 2 300 2 900 * AG 129 3.0 .0 10.2

```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: ValleyView Rd & Sunnyslope Rd  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

\* COORDINATES (M)  
 RECEPTOR \* X Y Z  
 -----\*  
 1. Recpt 1 \* -7 7 1.8  
 2. Recpt 2 \* -3 3 1.8  
 3. Recpt 3 \* 7 7 1.8  
 4. Recpt 4 \* 3 3 1.8  
 5. Recpt 5 \* -7 -7 1.8  
 6. Recpt 6 \* -3 -3 1.8  
 7. Recpt 7 \* 7 -7 1.8  
 8. Recpt 8 \* 3 -3 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

\* \* PRED \* CONC/LINK  
 \* BRG \* CONC \* (PPM)  
 RECEPTOR \* (DEG) \* (PPM) \* A B C D E F G H  
 -----\*  
 1. Recpt 1 \* 95. \* 3.2 \* .0 .0 .6 .0 .0 2.2 .1 .0  
 2. Recpt 2 \* 91. \* 4.2 \* .0 .2 .9 .0 .0 2.6 .0 .0  
 3. Recpt 3 \* 264. \* 3.2 \* .0 1.8 .0 .0 .0 .4 .6 .0  
 4. Recpt 4 \* 267. \* 4.1 \* .0 2.9 .0 .0 .0 .2 .7 .0  
 5. Recpt 5 \* 275. \* 3.7 \* .0 3.2 .0 .0 .0 .0 .4 .0  
 6. Recpt 6 \* 87. \* 3.8 \* .0 .2 1.1 .0 .0 2.3 .0 .0  
 7. Recpt 7 \* 275. \* 3.3 \* .0 2.6 .2 .0 .0 .0 .4 .0  
 8. Recpt 8 \* 271. \* 4.2 \* .0 3.2 .0 .0 .0 .2 .7 .0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

\* CONC/LINK  
 \* (PPM)  
 RECEPTOR \* I J K L M N O P  
 -----\*  
 1. Recpt 1 \* .0 .0 .0 .0 .0 .0 .1 .0  
 2. Recpt 2 \* .0 .0 .0 .0 .0 .0 .2 .0  
 3. Recpt 3 \* .0 .0 .0 .0 .0 .0 .2 .0  
 4. Recpt 4 \* .0 .0 .0 .0 .0 .0 .0 .0  
 5. Recpt 5 \* .0 .0 .0 .0 .0 .0 .0 .0  
 6. Recpt 6 \* .0 .0 .0 .0 .0 .0 .0 .0  
 7. Recpt 7 \* .0 .0 .0 .0 .0 .0 .0 .0  
 8. Recpt 8 \* .0 .0 .0 .0 .0 .0 .0 .0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Memorial&Hillcrest YR2020  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 40.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	EF VPH	H (G/M)	W (M)
A. Link A	* -900	-4	-300	-4	* AG	775 1.5	.0	12.4
B. Link B	* -300	-4	0	-4	* AG	775 13.6	.0	12.4
C. Link C	* 0	-4	300	-4	* AG	642 1.9	.0	12.4
D. Link D	* 300	-4	900	-4	* AG	642 1.5	.0	12.4
E. Link E	* 900	2	300	2	* AG	543 3.5	.0	12.4
F. Link F	* 300	2	0	2	* AG	543 3.5	.0	12.4
G. Link G	* 0	2	-300	2	* AG	682 1.9	.0	12.4
H. Link H	* -300	2	-900	2	* AG	682 1.5	.0	12.4
I. Link I	* -4	900	-4	300	* AG	98 1.5	.0	10.2
J. Link J	* -4	300	-4	0	* AG	98 2.7	.0	10.2
K. Link K	* -4	0	-4	-300	* AG	236 1.6	.0	10.2
L. Link L	* -4	-300	-4	-900	* AG	236 1.5	.0	10.2
M. Link M	* 2	-900	2	-300	* AG	212 1.5	.0	10.2
N. Link N	* 2	-300	2	0	* AG	212 2.7	.0	10.2
O. Link O	* 2	0	2	300	* AG	68 1.6	.0	10.2
P. Link P	* 2	300	2	900	* AG	68 1.5	.0	10.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Memorial&Hillcrest YR2020  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. Recpt 1	* -9	7	1.8
2. Recpt 2	* -5	3	1.8
3. Recpt 3	* 7	7	1.8
4. Recpt 4	* 3	3	1.8
5. Recpt 5	* -9	-9	1.8
6. Recpt 6	* -5	-5	1.8
7. Recpt 7	* 7	-9	1.8
8. Recpt 8	* 3	-5	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* (DEG)	* CONC	* (PPM)	* A	* B	* C	* D	* E	* F	* G	* H
1. Recpt 1	* 262.	* 1.5	* .0	1.2	.0	.0	.0	.0	.3	.0	.0
2. Recpt 2	* 264.	* 2.2	* .0	1.9	.0	.0	.0	.0	.3	.0	.0
3. Recpt 3	* 263.	* 1.6	* .0	1.2	.0	.0	.0	.0	.2	.0	.0
4. Recpt 4	* 264.	* 2.2	* .0	1.8	.0	.0	.0	.0	.3	.0	.0
5. Recpt 5	* 275.	* 2.6	* .0	2.4	.0	.0	.0	.0	.1	.0	.0
6. Recpt 6	* 272.	* 2.8	* .0	2.5	.0	.0	.0	.0	.2	.0	.0
7. Recpt 7	* 275.	* 2.3	* .0	2.0	.0	.0	.0	.0	.1	.0	.0
8. Recpt 8	* 271.	* 2.7	* .0	2.4	.0	.0	.0	.0	.2	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	* I	* J	* K	* L	* M	* N	* O	* P
1. Recpt 1	* .0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	* .0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	* .0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	* .0	.0	.0	.0	.0	.0	.0	.0
5. Recpt 5	* .0	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	* .0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	* .0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	* .0	.0	.0	.0	.0	.0	.0	.0

1. Recpt 1 \* .0 .0 .0 .0 .0 .0 .0  
 2. Recpt 2 \* .0 .0 .0 .0 .0 .0 .0  
 3. Recpt 3 \* .0 .0 .0 .0 .0 .0 .0  
 4. Recpt 4 \* .0 .0 .0 .0 .0 .0 .0  
 5. Recpt 5 \* .0 .0 .0 .0 .0 .0 .0  
 6. Recpt 6 \* .0 .0 .0 .0 .0 .0 .0  
 7. Recpt 7 \* .0 .0 .0 .0 .0 .0 .0  
 8. Recpt 8 \* .0 .0 .0 .0 .0 .0 .0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Memorial&Hillcrest  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 40.0 DEGREE (C)

II. LINK VARIABLES

LINK	* LINK COORDINATES (M) *	EF	H	W
DESCRIPTION	* X1 Y1 X2 Y2 *TYPE	VPH (G/MI)	(M)	(M)
A. Link A	* -900 -4 -300 -4 * AG	775	2.7	.0 12.4
B. Link B	* -300 -4 0 -4 * AG	775	15.6	.0 12.4
C. Link C	* 0 -4 300 -4 * AG	642	3.7	.0 12.4
D. Link D	* 300 -4 900 -4 * AG	642	2.7	.0 12.4
E. Link E	* 900 2 300 2 * AG	543	2.7	.0 12.4
F. Link F	* 300 2 0 2 * AG	543	7.0	.0 12.4
G. Link G	* 0 2 -300 2 * AG	682	3.7	.0 12.4
H. Link H	* -300 2 -900 2 * AG	682	2.7	.0 12.4
I. Link I	* -4 900 -4 300 * AG	98	2.7	.0 10.2
J. Link J	* -4 300 -4 0 * AG	98	5.5	.0 10.2
K. Link K	* -4 0 -4 -300 * AG	236	3.0	.0 10.2
L. Link L	* -4 -300 -4 -900 * AG	236	2.7	.0 10.2
M. Link M	* 2 -900 2 -300 * AG	212	2.7	.0 10.2
N. Link N	* 2 -300 2 0 * AG	212	5.5	.0 10.2
O. Link O	* 2 0 2 300 * AG	68	3.0	.0 10.2
P. Link P	* 2 300 2 900 * AG	68	2.7	.0 10.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Memorial&Hillcrest  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M)
* X	Y Z
1. Recpt 1	* -9 7 1.8
2. Recpt 2	* -5 3 1.8
3. Recpt 3	* 7 7 1.8
4. Recpt 4	* 3 3 1.8

5. Recept 5 \* -9 -9 1.8  
 6. Recept 6 \* -5 -5 1.8  
 7. Recept 7 \* 7 -9 1.8  
 8. Recept 8 \* 3 -5 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* PRED *	CONC/LINK	A	B	C	D	E	F	G	H
	(DEG)	(PPM)								
1. Recept 1	* 263.	* 2.0*	.0	1.3	.0	.0	.0	.6	.0	
2. Recept 2	* 265.	* 2.8*	.0	2.1	.0	.0	.0	.6	.0	
3. Recept 3	* 263.	* 2.1*	.0	1.4	.0	.0	.0	.1	.5	.0
4. Recept 4	* 265.	* 2.8*	.0	2.1	.0	.0	.0	.5	.0	
5. Recept 5	* 275.	* 3.1*	.0	2.8	.0	.0	.0	.3	.0	
6. Recept 6	* 272.	* 3.4*	.0	2.9	.0	.0	.0	.4	.0	
7. Recept 7	* 275.	* 2.9*	.0	2.3	.0	.0	.0	.3	.0	
8. Recept 8	* 271.	* 3.4*	.0	2.8	.0	.0	.0	.4	.0	

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P
1. Recept 1	* .0	.0	.0	.0	.0	.0	.0	.0
2. Recept 2	* .0	.0	.0	.0	.0	.0	.0	.0
3. Recept 3	* .0	.0	.0	.0	.0	.0	.0	.0
4. Recept 4	* .0	.0	.0	.0	.0	.0	.0	.0
5. Recept 5	* .0	.0	.0	.0	.0	.0	.0	.0
6. Recept 6	* .0	.0	.0	.0	.0	.0	.0	.0
7. Recept 7	* .0	.0	.0	.0	.0	.0	.0	.0
8. Recept 8	* .0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: ValleyView Rd & Sunnyslope Rd YR2020  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0=100. CM ALT= 0. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 40.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* TYPE	EF	H	W
						VPH (G/M)	(M)	(M)
A. Link A	* -900	-2	-300	-2	* AG	905	1.5	.0 12.4
B. Link B	* -300	-2	0	-2	* AG	905	13.6	.0 12.4
C. Link C	* 0	-2	300	-2	* AG	891	2.7	.0 12.4
D. Link D	* 300	-2	900	-2	* AG	891	1.5	.0 12.4
E. Link E	* 900	2	300	2	* AG	731	1.5	.0 12.4
F. Link F	* 300	2	0	2	* AG	731	13.6	.0 12.4
G. Link G	* 0	2	-300	2	* AG	768	2.2	.0 12.4
H. Link H	* -300	2	-900	2	* AG	768	1.5	.0 12.4
I. Link I	* -2	900	-2	300	* AG	152	1.5	.0 10.2

J. Link J \* -2 300 -2 0\* AG 152 2.7 .0 10.2  
 K. Link K \* -2 0 -2 -300\* AG 0 .0 .0 10.2  
 L. Link L \* -2 -300 -2 -900\* AG 0 .0 .0 10.2  
 M. Link M \* 2 -900 2 -300\* AG 0 .0 .0 10.2  
 N. Link N \* 2 -300 2 0\* AG 0 .0 .0 10.2  
 O. Link O \* 2 0 2 300\* AG 129 13.6 .0 10.2  
 P. Link P \* 2 300 2 900\* AG 129 1.6 .0 10.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: ValleyView Rd & Sunnyslope Rd YR2020  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

\* COORDINATES (M)  
 RECEPTOR \* X Y Z  
 -----  
 1. Recpt 1 \* -7 7 1.8  
 2. Recpt 2 \* -3 3 1.8  
 3. Recpt 3 \* 7 7 1.8  
 4. Recpt 4 \* 3 3 1.8  
 5. Recpt 5 \* -7 -7 1.8  
 6. Recpt 6 \* -3 -3 1.8  
 7. Recpt 7 \* 7 -7 1.8  
 8. Recpt 8 \* 3 -3 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

\* \* PRED \* CONC/LINK  
 \* BRG \* CONC \* (PPM)  
 RECEPTOR \* (DEG) \* (PPM) \* A B C D E F G H  
 -----  
 1. Recpt 1 \* 95. \* 2.4 \* .0 .0 .3 .0 .0 1.9 .0 .0  
 2. Recpt 2 \* 91. \* 3.2 \* .0 .2 .5 .0 .0 2.3 .0 .0  
 3. Recpt 3 \* 264. \* 2.5 \* .0 1.6 .0 .0 .0 .4 .3 .0  
 4. Recpt 4 \* 267. \* 3.2 \* .0 2.5 .0 .0 .0 .2 .4 .0  
 5. Recpt 5 \* 275. \* 3.0 \* .0 2.8 .0 .0 .0 .0 .2 .0  
 6. Recpt 6 \* 87. \* 2.9 \* .0 .2 .5 .0 .0 2.0 .0 .0  
 7. Recpt 7 \* 275. \* 2.6 \* .0 2.3 .0 .0 .0 .0 .2 .0  
 8. Recpt 8 \* 271. \* 3.4 \* .0 2.8 .0 .0 .0 .2 .3 .0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

\* CONC/LINK  
 \* (PPM)  
 RECEPTOR \* I J K L M N O P  
 -----  
 1. Recpt 1 \* .0 .0 .0 .0 .0 .0 .1 .0  
 2. Recpt 2 \* .0 .0 .0 .0 .0 .0 .1 .0  
 3. Recpt 3 \* .0 .0 .0 .0 .0 .0 .1 .0  
 4. Recpt 4 \* .0 .0 .0 .0 .0 .0 .0 .0  
 5. Recpt 5 \* .0 .0 .0 .0 .0 .0 .0 .0  
 6. Recpt 6 \* .0 .0 .0 .0 .0 .0 .0 .0  
 7. Recpt 7 \* .0 .0 .0 .0 .0 .0 .0 .0  
 8. Recpt 8 \* .0 .0 .0 .0 .0 .0 .0 .0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: ValleyView Rd & Sunnyslope Rd

RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 40.0 DEGREE (C)

II. LINK VARIABLES

LINK	* LINK COORDINATES (M) *	EF	H	W
DESCRIPTION	* X1 Y1 X2 Y2 *TYPE	VPH	(G/MI)	(M) (M)
A. Link A	* -900 -2 -300 -2 * AG	905	2.7	.0 12.4
B. Link B	* -300 -2 0 -2 * AG	905	15.6	.0 12.4
C. Link C	* 0 -2 300 -2 * AG	891	5.5	.0 12.4
D. Link D	* 300 -2 900 -2 * AG	891	2.7	.0 12.4
E. Link E	* 900 2 300 2 * AG	731	2.7	.0 12.4
F. Link F	* 300 2 0 2 * AG	731	15.6	.0 12.4
G. Link G	* 0 2 -300 2 * AG	768	4.4	.0 12.4
H. Link H	* -300 2 -900 2 * AG	768	2.7	.0 12.4
I. Link I	* -2 900 -2 300 * AG	152	2.7	.0 10.2
J. Link J	* -2 300 -2 0 * AG	152	5.5	.0 10.2
K. Link K	* -2 0 -2 -300 * AG	0	.0	.0 10.2
L. Link L	* -2 -300 -2 -900 * AG	0	.0	.0 10.2
M. Link M	* 2 -900 2 -300 * AG	0	.0	.0 10.2
N. Link N	* 2 -300 2 0 * AG	0	.0	.0 10.2
O. Link O	* 2 0 2 300 * AG	129	15.6	.0 10.2
P. Link P	* 2 300 2 900 * AG	129	2.7	.0 10.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: ValleyView Rd & Sunnyslope Rd  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M) *
	* X Y Z *
1. Recpt 1	* -7 7 1.8
2. Recpt 2	* -3 3 1.8
3. Recpt 3	* 7 7 1.8
4. Recpt 4	* 3 3 1.8
5. Recpt 5	* -7 -7 1.8
6. Recpt 6	* -3 -3 1.8
7. Recpt 7	* 7 -7 1.8
8. Recpt 8	* 3 -3 1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* PRED * CONC/LINK								
	* BRG * CONC * (PPM)								
	* (DEG) * (PPM) *	A	B	C	D	E	F	G	H
1. Recpt 1	* 95. * 3.2 * .0 .0 .6 .0 .0 2.2 .1 .0								
2. Recpt 2	* 91. * 4.2 * .0 .2 .9 .0 .0 2.6 .0 .0								
3. Recpt 3	* 264. * 3.2 * .0 1.8 .0 .0 .0 .4 .6 .0								
4. Recpt 4	* 267. * 4.1 * .0 2.9 .0 .0 .0 .2 .7 .0								





## **GREENHOUSE GAS EMISSIONS SUMMARY**

<b>OPERATIONAL EMISSIONS SUMMARY AT BUILDOUT</b>				
<b><u>SOURCE</u></b>	<b>CO<sub>2</sub>e MT/YR</b>			
	<b><u>CO<sub>2</sub></u></b>	<b><u>N<sub>2</sub>O</u></b>	<b><u>CH<sub>4</sub></u></b>	<b><u>TOTAL</u></b>
Motor Vehicles	18,480.4	754.3	43.4	19,278.1
Hearth	807.0	0.0	0.0	807.0
Landscape Maintenance	7.0	0.0	0.0	7.0
Electricity Use	4,129.2	9.8	0.4	4,139.3
Natural Gas Use	2,176.2	5.0	8.5	2,189.7
TOTAL CO <sub>2</sub> EQUIV (TONS/YR):				26,421.1

<b><u>LAND USE</u></b>	<b>CO<sub>2</sub>e MT/YR</b>			
	<b><u>CO<sub>2</sub></u></b>	<b><u>N<sub>2</sub>O</u></b>	<b><u>CH<sub>4</sub></u></b>	<b><u>TOTAL</u></b>
Residential	20567.8	647.4	45.5	20446.7
Elementary School	2017.9	41.4	2.2	2061.5
Retail	3005.0	80.0	4.6	3089.6
WWTP	9.1	0.2	0.0	9.3
TOTAL CO <sub>2</sub> EQUIV (TONS/YR):				26421.1

<b><u>ANNUAL CONSTRUCTION EMISSIONS SUMMARY</u></b>	<b>MT/YR</b>	
	<b><u>CO<sub>2</sub></u></b>	<b><u>CO<sub>2</sub>e</u></b>
2009	110.0	99.8
2010	2886.0	2618.2
2011	2914.5	2644.0
2012	2902.3	2632.9
2013	2912.6	2642.3
2014	1874.6	1700.6

<b><u>MAX ANNUAL EMISSIONS/CONST PHASE</u></b>	<b>MT/YR</b>	
	<b><u>CO<sub>2</sub></u></b>	<b><u>CO<sub>2</sub>e</u></b>
Demolition	12.5	11.3
Grading	85.7	77.8
Asphalt	27.5	25.0
Building	2905.5	2635.9
Arch Coatings	8.96	8.1

**ELECTRICITY**

ELECTRICITY USAGE RATES - PG&E FCZ4								
END USE	PROPOSED PROJECT (KSF)	UNIT	CEC's EUFS END-USE FLOOR STOCK - SEGMENT TOTAL (KSF)	CEC's ANNUAL ENERGY USAGE - SEGMENT TOTAL (GWh)	CALCULATED ANNUAL AVG USAGE RATE/UNIT		ENERGY USE	
Single-Family Residential	1092	DU			7,869	KWh/DU	8,592,948	kWh
School	67.83	KSF	4,920,114	67,077	13,633	KWh/KSF	924,741	kWh
Retail	65.34	KSF	76,309	978	12,816	KWh/KSF	837,418	kWh
WWTP	0.32	MG	16,147	243	15,049	KWh/MG	4,816	kWh
				Sum	49367.76847	kWh		

Commercial usage rates derived from California Energy Commission. 2008. California Commercial End-Use Survey: <http://capabilities.itron.com/CeusWeb/Chart.aspx>, based on annual summary statistics.

Residential usage rates derived from California Energy Commission. 2004. California Statewide Residential Appliance Saturation Study. Based on updated UECs for weather-sensitive FCZs (2006). CEC. 2006. CSRASS Update to Air Conditioning Unit Energy Consumption Estimates Using 2004 Billing Data.

EMISSION FACTORS	LB/MWH
CO2	879
CH4	0.0067
N2O	0.0037

Source: California Climate Action Registry, General Reporting Protocol. Reporting Entity-wide Greenhouse Gas Emissions. Version 3.0. April 2008.

SOURCE	ELECTRICITY USE (MWH/YR)	Tons/Year			CO2e (MT/Year)			
		CO2	N2O	CH4	CO2	N2O	CH4	TOTAL
Single-Family Residential	8,593	3,424.9	0.0	0.0	3,424.9	8.1	0.3	3,433.3
Elementary School	925	368.6	0.0	0.0	368.6	0.9	0.0	369.5
Reg. Shopping Cntr.	837	333.8	0.0	0.0	333.8	0.8	0.0	334.6
WWTP	5	1.9	0.0	0.0	1.9	0.0	0.0	1.9
					<b>4,129.2</b>	<b>9.8</b>	<b>0.4</b>	<b>4,139.3</b>

Elementary School square footage was calculated based on trip-generation rates/student (assuming an estimated 800 students) and an equivalent sqft based on the average trip-generation rate/sqft. derived from the Institute of Transportation Engineers' Trip Generation, 6th Edition (1998).

WWTP electricity consumption derived from PG&E's Municipal Wastewater Treatment Plant Energy Baseline Study (June 2003). Based on an average

**NATURAL GAS**

NATURAL GAS USAGE RATES - PG&E FCZ4								
END USE	PROPOSED PROJECT (KSF)	UNIT	CEC's EUFS FLOOR STOCK SEGMENT TOTAL (KSF)	CEC's ANNUAL ENERGY USAGE - SEGMENT TOTAL (10k Therms)	CALCULATED ANNUAL AVG USAGE RATE/UNIT		ENERGY USE	
							therms	MMBTU
Single-Family Residential	1092	DU			630	therms/year/DU	687,960	68796.00
School	67.83	KSF	56,561	1,285	227	therms/year/KSF	15,410	1541.02
Retail	65.34	KSF	76,309	229	30	therms/year/KSF	1,961	196.08

Based on usage rates derived from California Energy Commission California Commercial End-Use Survey. <http://capabilities.itron.com/CeusWeb/Chart.aspx>, based on annual summary statistics.

Residential usage rates derived from California Energy Commission. 2004. California Statewide Residential Appliance Saturation Study.

NATURAL GAS EMISSION FACTORS	
	kg/MMBtu
N20	0.0001
CH4	0.0059

Source: California Climate Action Registry, General Reporting Protocol. Reporting Entity-wide Greenhouse Gas Emissions. Version 3.0. April 2008.

	NATURAL GAS USE(MMBTU/YR)	Tons/Year			CO2e (MT/Year)			
		CO2	N2O	CH4	CO2	N2O	CH4	TOTAL
Single-Family Residential	68,796.0	724.4	0.0	0.4	724.4	2.1	8.5	735.1
Elementary School	1,541.0	725.4	0.0	0.0	725.4	2.8	0.0	728.2
Reg. Shopping Cntr.	196.1	726.4	0.0	0.0	726.4	0.0	0.0	726.4
					<b>2,176.2</b>	<b>5.0</b>	<b>8.5</b>	<b>2,189.7</b>

CO2 emissions were calculated using the URBEMIS2007 computer program. CH4 AND N20 emission factors derived from CA Climate Change Action Registry General Reporting Protocol, Version 2.2, March 2007; Appn C, Table C-1; and the estimated usage rates identified above.

Elementary School square footage was calculated based on trip-generation rates/student (assuming an estimated 800 students) and an equivalent sqft based on the average trip-generation rate/sqft. derived from the Institute of Transportation Engineers' Trip Generation, 6th Edition (1998).

**GHG EMISSIONS: MOBILE-SOURCE**

N2O & CH4	VEH. FLEET MIX	FUEL FRACTION	GASOLINE			
			CH4		N2O	
			EMFAC	WT EMFAC	EMFAC	WT EMFAC
Light Auto	0.359	0.994	0.040	0.014	0.040	0.014
Light Truck < 3750 lbs	0.181	0.944	0.050	0.009	0.060	0.010
Light Truck 3751-5750 lbs	0.192	0.990	0.050	0.010	0.060	0.011
Med Truck 5751-8500 lbs	0.088	0.989	0.120	0.010	0.200	0.017
Lite-Heavy Truck 8501-10,000 lbs	0.02	0.700	0.120	0.002	0.200	0.003
Lite-Heavy Truck 10,001-14,000 lbs	0.012	0.417	0.120	0.001	0.200	0.001
Med-Heavy Truck 14,001-33,000 lbs	0.011	0.182	0.120	0.000	0.200	0.000
Heavy-Heavy Truck 33,001-60,000 lbs	0.046	0.022	0.120	0.000	0.200	0.000
Other Bus	0.001	0.000	0.120	0.000	0.200	0.000
Urban Bus	0.000	0.000				
Motorcycle	0.076	0.500	0.090	0.003	0.010	0.000
School Bus	0.001	0.000	0.120	0.000	0.200	0.000
Motor Home	0.013	0.846	0.120	0.001	0.200	0.002
				0.050		0.060

Vehicle fleet mix derived from URBEMIS2007 (version 9.2.4) computer program. Emission factors derived from California Climate Action Registry General Reporting Protocol, Version 3.0, April 2008.

N2O & CH4	VEH. FLEET MIX	FUEL FRACTION	DIESEL			
			CH4		N2O	
			EMFAC	WT EMFAC	EMFAC	WT EMFAC
Light Auto	0.359	0.003	0.010	0.000	0.020	0.000
Light Truck < 3750 lbs	0.181	0.050	0.010	0.000	0.030	0.000
Light Truck 3751-5750 lbs	0.192	0.005	0.010	0.000	0.030	0.000
Med Truck 5751-8500 lbs	0.088	0.011	0.060	0.000	0.050	0.000
Lite-Heavy Truck 8501-10,000 lbs	0.02	0.300	0.060	0.000	0.050	0.000
Lite-Heavy Truck 10,001-14,000 lbs	0.012	0.583	0.060	0.000	0.050	0.000
Med-Heavy Truck 14,001-33,000 lbs	0.011	0.818	0.060	0.001	0.050	0.000
Heavy-Heavy Truck 33,001-60,000 lbs	0.046	0.978	0.060	0.003	0.050	0.002
Other Bus	0.001	1.000	0.060	0.000	0.050	0.000
Urban Bus	0.000	0.000				
Motorcycle	0.076	0.000	0.090	0.000	0.010	0.000
School Bus	0.001	1.000	0.060	0.000	0.050	0.000
Motor Home	0.013	0.154	0.060	0.000	0.050	0.000
				0.004		0.004

Vehicle fleet mix derived from URBEMIS2007 (version 9.2.4) computer program. Emission factors derived from California Climate Action Registry General Reporting Protocol, Version 3.0, April 2008.

Source	CO2	CO2e
Single-Family Residential	17,200.7	15,604.5
Elementary School	1,018.4	923.9
Reg. Shopping Cntr.	2,143.8	1,944.8
WWTP	7.9	7.2
GWP	1	

SOURCE: URBEMIS2007, VERSION 9.2.4

MOBILE-SOURCE EMISSIONS SUMMARY										
	ANNUAL VMT	Composite EMFACs		Tons/Year			CO2e (Tons/Year)			
		CH4	N2O	CO2	N2O	CH4	CO2	N2O	CH4	TOTAL
Single-Family Residential	3.20E+07	0.055	0.064	17,200.7	2.3	1.9	15,604.5	637.2	36.7	16,278.3
Elementary School	1.89E+06	0.055	0.064	1,018.4	0.1	0.1	923.9	37.7	2.2	963.8
Reg. Shopping Cntr.	3.98E+06	0.055	0.064	2,143.8	0.3	0.2	1,944.8	79.2	4.6	2,028.6
WWTP	7.57E+03	0.055	0.064	7.9	0.0	0.0	7.2	0.2	0.0	7.4
							<b>18480.4</b>	<b>754.3</b>	<b>43.4</b>	<b>19278.1</b>

Annual vehicle miles traveled derived from URBEMIS2007 computer program.