

APPENDIX C

Draft EIR Revised Appendix C: Air Quality Model Outputs

The following are the assumptions used to estimate construction and operational criteria air pollutant emissions of the proposed project.

CONSTRUCTION EMISSIONS

Community Construction Phase I

Land Use

505 Low density Residential => Single Family

650 Medium Density => Single Family

13 acres Park => City Park

9.1 acres Public/Quasi Public = created "blank"

Construction

Construction Phasing used = 01/01/2009 through 01/01/2012 (3 years)

Demolition turned off

Fine Site Grading

Max Acreage disturbed assumes 50 acres per day

Mitigation is turned on for all options:

- Apply soil stabilizers to inactive areas
- Equipment loading/unloading
- Replace ground cover in disturbed areas quickly
- Water exposed surfaces

Building Phase default

Architectural Coating is turned on

Software

URBEMIS 2007

Community Construction Phase II

Land Use

213 Low density Residential => Single Family

858 Medium Density => Single Family

931 High Density => Apartments Low Rise

12.2 acres Commercial CPD => created "blank" used sf from project description

10 acres Commercial CMU => created "blank" for commercial used sf from project description, 75 residential added to Apartments Low Rise

24.8 acres Park => City Park

4.7 acres Public/Quasi Public = created "blank"

21 acres school => added under Elementary, Junior High, and High School based on project description.

Open Space => not included

Landscape => not included

Street => not included

Construction

Construction Phasing used = 01/01/2012 through 12/31/2014 (3 years)

Demolition turned off

Fine Site Grading

Max Acreage disturbed assumes 50 acres per day

Mitigation is turned on for all options:

- Apply soil stabilizers to inactive areas
- Equipment loading/unloading
- Replace ground cover in disturbed areas quickly
- Water exposed surfaces

Building Phase default

Architectural Coating is turned on

Software

URBEMIS 2007

University Construction

Land Use

1/3 of students = 1/3 750 units = 250

500,000 s.f. other buildings

Construction

Construction phasing start during 2nd phase of Community Construction

Construction Phasing used = 01/01/2012 through 12/31/2014 (3 years)

Demolition turned off

Fine Site Grading

Max Acreage disturbed assumes 50 acres per day

Mitigation is turned on for all options:

- Apply soil stabilizers to inactive areas
- Equipment loading/unloading
- Replace ground cover in disturbed areas quickly
- Water exposed surfaces

Building Phase default

Architectural Coating is turned on

Software

URBEMIS 2007

Watt Avenue Extension

Construction

Start year= 2009

6 months construction

Roadway length = 1.75 miles (from project description)

Area of disturbance = 35 acres (from project description)

Max acreage disturbed per day = 9 acres (used 25% of total)

Assumes water trucks would be used.

Software

SMAQMD Road Construction Emissions Model Version 5.2

OPERATIONAL EMISSIONS

There are two output files: 2010 and 2020. Year 2020 emissions would represent project buildout, assuming construction and operation of all project components (community and university). Year 2010 emissions are provided for comparative purposes but assumes the same buildout land use data as 2020.

Traffic report is included in Appendix I of the Draft EIR.

Land Use

Residential

Single Family Housing (2,226 units) = low (718 units) and medium density (1508 units) residential, trip rate has been changed to 9.57 to match traffic report

Apartments Low Rise (1006 units) = high density residential, trip rate changed to 6.72 to match traffic report

Condo/Townhouse General (330 units) = on campus faculty/staff, trip rate changed to 9.79 to match traffic report

Retirement Community (75 units) = senior adult housing detached, trip rate changed to 3.71 to match traffic report

Educational

Elementary School (600 students) = trip rate changed to 1.29 to match traffic report

Junior High School (750 students) = K-8 school, trip rate changed to 1.62 to match traffic report

High School (1200 students) = Private high school, trip rate changed to 1.67 to match traffic report

Junior College (4970 students) = No junior college is assumed, but this category has been modified to account for the off-campus students (4500 students) and faculty staff (470 employees). Using trip rates of 0.51 trips per student and 4.49 trips per faculty/staff, combined these two groups resulted in 6,801 trips. This would be about 0.89 trips/student or employee assuming 4970 students and employees. The trip rate has been modified to reflect this. The percent of primary and diverted trips was also modified to reflect the same numbers as are used for the University/College.

University/College (1500 students) = On campus students, default trip rate matches traffic report.

Retail

Retail CMU (109,000 sf) and Retail CPD (133,000 sf) there is not a retail use category that matches the described uses, so they have been created under the “Blank” tab. The trip rates are based on the traffic report for these uses, and the primary and diverted trips are based on other retail uses such as a strip mall or supermarket.

Note: The traffic report includes 4.4 acres of fire and public uses with 100 daily trips. These trips would be minimal in comparison to the overall trips, and this has not been included in the model.

Area Sources

Everything is default except “Landscape Fuel Combustion” years have been changed to 2010 and 2020.

For winter, a separate file (“Winter Mitigated”) has been created with 100 percent of homes with Natural Gas Fireplaces.

Operational (Motor Vehicles)

Everything is default except years have been changed to 2010 and 2020, and the double counting correction has been turned on. Double counting trips were provided in the traffic report trip generation table, and is equal to 25,981 trips.

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Community Phase I.urb924

Project Name: RUSP Community Construction Phase I

Project Location: Placer County APCD

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>
2009 TOTALS (lbs/day unmitigated)	25.93	177.94	304.37	0.27	1,001.30	8.82	1,010.12	209.30	8.06	217.37	39,486.19
2009 TOTALS (lbs/day mitigated)	25.93	177.94	304.37	0.27	228.05	8.82	236.88	47.82	8.06	55.88	39,486.19
2010 TOTALS (lbs/day unmitigated)	12.87	70.39	232.59	0.27	1.29	3.56	4.85	0.46	3.22	3.68	30,398.97
2010 TOTALS (lbs/day mitigated)	12.87	70.39	232.59	0.27	1.29	3.56	4.85	0.46	3.22	3.68	30,398.97
2011 TOTALS (lbs/day unmitigated)	983.04	100.28	241.04	0.31	1.45	5.61	7.05	0.51	5.10	5.61	35,863.42
2011 TOTALS (lbs/day mitigated)	983.04	100.28	241.04	0.31	1.45	5.61	7.05	0.51	5.10	5.61	35,863.42

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

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	<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 1/1/2009-3/31/2009 Active Days: 64	11.88	101.24	51.91	0.00	1,000.01	4.97	1,004.99	208.84	4.57	213.42	9,098.41
Fine Grading 01/01/2009-04/01/2009	11.88	101.24	51.91	0.00	1,000.01	4.97	1,004.99	208.84	4.57	213.42	9,098.41
Fine Grading Dust	0.00	0.00	0.00	0.00	1,000.00	0.00	1,000.00	208.84	0.00	208.84	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
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	0.08	0.14	2.56	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.54
Time Slice 4/1/2009-4/1/2009 Active Days: 1	<u>25.93</u>	<u>177.94</u>	<u>304.37</u>	<u>0.27</u>	<u>1,001.30</u>	<u>8.82</u>	<u>1,010.12</u>	<u>209.30</u>	<u>8.06</u>	<u>217.37</u>	<u>39,486.19</u>
Building 04/01/2009-01/01/2012	14.05	76.69	252.47	0.27	1.29	3.85	5.14	0.46	3.49	3.95	30,387.78
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	2.84	40.43	26.11	0.06	0.26	1.54	1.79	0.09	1.41	1.50	6,995.10
Building Worker Trips	6.84	11.55	211.73	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,133.40
Fine Grading 01/01/2009-04/01/2009	11.88	101.24	51.91	0.00	1,000.01	4.97	1,004.99	208.84	4.57	213.42	9,098.41
Fine Grading Dust	0.00	0.00	0.00	0.00	1,000.00	0.00	1,000.00	208.84	0.00	208.84	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
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	0.08	0.14	2.56	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.54
Time Slice 4/2/2009-12/31/2009 Active Days: 196	14.05	76.69	252.47	0.27	1.29	3.85	5.14	0.46	3.49	3.95	30,387.78
Building 04/01/2009-01/01/2012	14.05	76.69	252.47	0.27	1.29	3.85	5.14	0.46	3.49	3.95	30,387.78
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	2.84	40.43	26.11	0.06	0.26	1.54	1.79	0.09	1.41	1.50	6,995.10
Building Worker Trips	6.84	11.55	211.73	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,133.40

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Time Slice 1/1/2010-12/31/2010	<u>12.87</u>	<u>70.39</u>	<u>232.59</u>	<u>0.27</u>	<u>1.29</u>	<u>3.56</u>	<u>4.85</u>	<u>0.46</u>	<u>3.22</u>	<u>3.68</u>	<u>30,398.97</u>
Active Days: 261											
Building 04/01/2009-01/01/2012	12.87	70.39	232.59	0.27	1.29	3.56	4.85	0.46	3.22	3.68	30,398.97
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	2.64	36.65	24.27	0.06	0.26	1.39	1.64	0.09	1.27	1.36	6,994.84
Building Worker Trips	6.16	10.43	194.01	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,144.85
Time Slice 1/3/2011-7/29/2011	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
Active Days: 150											
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97
Time Slice 8/1/2011-10/31/2011	972.78	64.55	223.84	0.28	1.34	3.34	4.68	0.48	3.01	3.49	31,555.89
Active Days: 66											
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97
Coating 08/01/2011-11/01/2011	961.02	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23
Architectural Coating	960.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.30	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23

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Time Slice 11/1/2011-11/1/2011	<u>983.04</u>	<u>100.28</u>	<u>241.04</u>	<u>0.31</u>	<u>1.45</u>	<u>5.61</u>	<u>7.05</u>	<u>0.51</u>	<u>5.10</u>	<u>5.61</u>	<u>35,863.42</u>
Active Days: 1											
Asphalt 11/01/2011-01/01/2012	10.26	35.73	17.21	0.03	0.10	2.27	2.37	0.03	2.08	2.12	4,307.52
Paving Off-Gas	6.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	1.14	17.42	5.79	0.03	0.10	0.64	0.74	0.03	0.59	0.62	2,760.81
Paving Worker Trips	0.03	0.06	1.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.90
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97
Coating 08/01/2011-11/01/2011	961.02	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23
Architectural Coating	960.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.30	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23
Time Slice 11/2/2011-12/30/2011	22.02	99.77	231.41	0.30	1.39	5.58	6.97	0.49	5.08	5.57	34,716.19
Active Days: 43											
Asphalt 11/01/2011-01/01/2012	10.26	35.73	17.21	0.03	0.10	2.27	2.37	0.03	2.08	2.12	4,307.52
Paving Off-Gas	6.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	1.14	17.42	5.79	0.03	0.10	0.64	0.74	0.03	0.59	0.62	2,760.81
Paving Worker Trips	0.03	0.06	1.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.90
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97

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Phase Assumptions

Phase: Fine Grading 1/1/2009 - 4/1/2009 - Default Fine Site Grading Description

Total Acres Disturbed: 431.37

Maximum Daily Acreage Disturbed: 50

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
- 3 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 11/1/2011 - 1/1/2012 - Default Paving Description

Acres to be Paved: 101.78

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 4/1/2009 - 1/1/2012 - 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

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Phase: Architectural Coating 8/1/2011 - 11/1/2011 - Type Your Description Here

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

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 1/1/2009-3/31/2009 Active Days: 64	11.88	101.24	51.91	0.00	226.76	4.97	231.74	47.36	4.57	51.93	9,098.41
Fine Grading 01/01/2009- 04/01/2009	11.88	101.24	51.91	0.00	226.76	4.97	231.74	47.36	4.57	51.93	9,098.41
Fine Grading Dust	0.00	0.00	0.00	0.00	226.75	0.00	226.75	47.35	0.00	47.35	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
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	0.08	0.14	2.56	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.54

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Time Slice 4/1/2009-4/1/2009 Active Days: 1	<u>25.93</u>	<u>177.94</u>	<u>304.37</u>	<u>0.27</u>	<u>228.05</u>	<u>8.82</u>	<u>236.88</u>	<u>47.82</u>	<u>8.06</u>	<u>55.88</u>	<u>39,486.19</u>
Building 04/01/2009-01/01/2012	14.05	76.69	252.47	0.27	1.29	3.85	5.14	0.46	3.49	3.95	30,387.78
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	2.84	40.43	26.11	0.06	0.26	1.54	1.79	0.09	1.41	1.50	6,995.10
Building Worker Trips	6.84	11.55	211.73	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,133.40
Fine Grading 01/01/2009-04/01/2009	11.88	101.24	51.91	0.00	226.76	4.97	231.74	47.36	4.57	51.93	9,098.41
Fine Grading Dust	0.00	0.00	0.00	0.00	226.75	0.00	226.75	47.35	0.00	47.35	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
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	0.08	0.14	2.56	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.54
Time Slice 4/2/2009-12/31/2009 Active Days: 196	14.05	76.69	252.47	0.27	1.29	3.85	5.14	0.46	3.49	3.95	30,387.78
Building 04/01/2009-01/01/2012	14.05	76.69	252.47	0.27	1.29	3.85	5.14	0.46	3.49	3.95	30,387.78
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	2.84	40.43	26.11	0.06	0.26	1.54	1.79	0.09	1.41	1.50	6,995.10
Building Worker Trips	6.84	11.55	211.73	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,133.40
Time Slice 1/1/2010-12/31/2010 Active Days: 261	<u>12.87</u>	<u>70.39</u>	<u>232.59</u>	<u>0.27</u>	<u>1.29</u>	<u>3.56</u>	<u>4.85</u>	<u>0.46</u>	<u>3.22</u>	<u>3.68</u>	<u>30,398.97</u>
Building 04/01/2009-01/01/2012	12.87	70.39	232.59	0.27	1.29	3.56	4.85	0.46	3.22	3.68	30,398.97
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	2.64	36.65	24.27	0.06	0.26	1.39	1.64	0.09	1.27	1.36	6,994.84
Building Worker Trips	6.16	10.43	194.01	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,144.85

4/1/2008 2:24:30 PM

Time Slice 1/3/2011-7/29/2011 Active Days: 150	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97
Time Slice 8/1/2011-10/31/2011 Active Days: 66	972.78	64.55	223.84	0.28	1.34	3.34	4.68	0.48	3.01	3.49	31,555.89
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97
Coating 08/01/2011-11/01/2011	961.02	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23
Architectural Coating	960.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.30	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23

4/1/2008 2:24:30 PM

Time Slice 11/1/2011-11/1/2011	<u>983.04</u>	<u>100.28</u>	<u>241.04</u>	<u>0.31</u>	<u>1.45</u>	<u>5.61</u>	<u>7.05</u>	<u>0.51</u>	<u>5.10</u>	<u>5.61</u>	<u>35,863.42</u>
Active Days: 1											
Asphalt 11/01/2011-01/01/2012	10.26	35.73	17.21	0.03	0.10	2.27	2.37	0.03	2.08	2.12	4,307.52
Paving Off-Gas	6.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	1.14	17.42	5.79	0.03	0.10	0.64	0.74	0.03	0.59	0.62	2,760.81
Paving Worker Trips	0.03	0.06	1.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.90
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97
Coating 08/01/2011-11/01/2011	961.02	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23
Architectural Coating	960.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.30	0.51	9.64	0.01	0.06	0.03	0.08	0.02	0.02	0.04	1,147.23
Time Slice 11/2/2011-12/30/2011	22.02	99.77	231.41	0.30	1.39	5.58	6.97	0.49	5.08	5.57	34,716.19
Active Days: 43											
Asphalt 11/01/2011-01/01/2012	10.26	35.73	17.21	0.03	0.10	2.27	2.37	0.03	2.08	2.12	4,307.52
Paving Off-Gas	6.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	1.14	17.42	5.79	0.03	0.10	0.64	0.74	0.03	0.59	0.62	2,760.81
Paving Worker Trips	0.03	0.06	1.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.90
Building 04/01/2009-01/01/2012	11.76	64.04	214.20	0.27	1.29	3.31	4.60	0.46	2.99	3.45	30,408.67
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	2.43	32.78	22.54	0.06	0.26	1.24	1.49	0.09	1.13	1.22	6,994.42
Building Worker Trips	5.57	9.41	177.71	0.21	1.03	0.50	1.53	0.37	0.41	0.78	21,154.97

4/1/2008 2:24:30 PM

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/1/2009 - 4/1/2009 - 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%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Community Phase II.urb924

Project Name: RUSP Community Construction Phase II

Project Location: Placer County APCD

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>
2012 TOTALS (lbs/day unmitigated)	14.09	84.04	287.49	0.40	1,000.01	3.94	1,003.95	208.84	3.63	212.47	43,831.05
2012 TOTALS (lbs/day mitigated)	14.09	84.04	287.49	0.40	226.76	3.94	230.71	47.36	3.63	50.98	43,831.05
2013 TOTALS (lbs/day unmitigated)	12.74	65.86	264.49	0.40	1.91	3.37	5.28	0.68	3.01	3.69	43,841.20
2013 TOTALS (lbs/day mitigated)	12.74	65.86	264.49	0.40	1.91	3.37	5.28	0.68	3.01	3.69	43,841.20
2014 TOTALS (lbs/day unmitigated)	1,413.39	88.00	258.82	0.43	2.03	4.85	6.87	0.72	4.37	5.09	48,587.92
2014 TOTALS (lbs/day mitigated)	1,413.39	88.00	258.82	0.43	2.03	4.85	6.87	0.72	4.37	5.09	48,587.92

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

4/1/2008 2:34:16 PM

	<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 1/2/2012-3/30/2012 Active Days: 65	10.00	<u>84.04</u>	44.05	0.00	<u>1,000.01</u>	<u>3.94</u>	<u>1,003.95</u>	<u>208.84</u>	<u>3.63</u>	<u>212.47</u>	9,098.76
Fine Grading 01/01/2012-04/01/2012	10.00	84.04	44.05	0.00	1,000.01	3.94	1,003.95	208.84	3.63	212.47	9,098.76
Fine Grading Dust	0.00	0.00	0.00	0.00	1,000.00	0.00	1,000.00	208.84	0.00	208.84	0.00
Fine Grading Off Road Diesel	9.94	83.94	42.08	0.00	0.00	3.94	3.94	0.00	3.62	3.62	8,842.87
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	0.06	0.10	1.97	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.90
Time Slice 4/2/2012-12/31/2012 Active Days: 196	<u>14.09</u>	<u>73.43</u>	<u>287.49</u>	<u>0.40</u>	<u>1.91</u>	<u>3.70</u>	<u>5.61</u>	<u>0.68</u>	<u>3.32</u>	<u>4.00</u>	<u>43,831.05</u>
Building 04/01/2012-12/31/2014	14.09	73.43	287.49	0.40	1.91	3.70	5.61	0.68	3.32	4.00	43,831.05
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	3.11	40.26	29.85	0.09	0.36	1.52	1.88	0.12	1.39	1.52	9,841.71
Building Worker Trips	7.50	12.74	244.02	0.31	1.55	0.76	2.30	0.56	0.62	1.17	31,730.06
Time Slice 1/1/2013-12/31/2013 Active Days: 261	<u>12.74</u>	<u>65.86</u>	<u>264.49</u>	<u>0.40</u>	<u>1.91</u>	<u>3.37</u>	<u>5.28</u>	<u>0.68</u>	<u>3.01</u>	<u>3.69</u>	<u>43,841.20</u>
Building 04/01/2012-12/31/2014	12.74	65.86	264.49	0.40	1.91	3.37	5.28	0.68	3.01	3.69	43,841.20
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	2.84	35.33	27.59	0.09	0.36	1.34	1.70	0.12	1.23	1.35	9,841.39
Building Worker Trips	6.72	11.49	223.56	0.31	1.55	0.76	2.31	0.56	0.62	1.17	31,740.53
Time Slice 1/1/2014-7/31/2014 Active Days: 152	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building 04/01/2012-12/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	2.57	30.79	25.44	0.09	0.36	1.18	1.54	0.12	1.08	1.20	9,841.34
Building Worker Trips	6.08	10.37	204.65	0.31	1.55	0.72	2.27	0.56	0.58	1.14	31,750.25

4/1/2008 2:34:16 PM

Time Slice 8/1/2014-10/31/2014 Active Days: 66	<u>1,413.39</u>	59.36	253.95	0.42	1.99	3.05	5.04	0.71	2.71	3.42	45,526.15
Building 04/01/2012-12/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	2.57	30.79	25.44	0.09	0.36	1.18	1.54	0.12	1.08	1.20	9,841.34
Building Worker Trips	6.08	10.37	204.65	0.31	1.55	0.72	2.27	0.56	0.58	1.14	31,750.25
Coating 08/01/2014-11/01/2014	1,401.81	0.55	10.80	0.02	0.08	0.04	0.12	0.03	0.03	0.06	1,675.27
Architectural Coating	1,401.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.32	0.55	10.80	0.02	0.08	0.04	0.12	0.03	0.03	0.06	1,675.27
Time Slice 11/3/2014-12/31/2014 Active Days: 43	22.14	<u>88.00</u>	<u>258.82</u>	<u>0.43</u>	<u>2.03</u>	<u>4.85</u>	<u>6.87</u>	<u>0.72</u>	<u>4.37</u>	<u>5.09</u>	<u>48,587.92</u>
Asphalt 11/01/2014-12/31/2014	10.56	29.19	15.67	0.03	0.12	1.84	1.95	0.04	1.69	1.73	4,737.04
Paving Off-Gas	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.54	15.61	10.07	0.00	0.00	1.34	1.34	0.00	1.24	1.24	1,418.81
Paving On Road Diesel	0.99	13.53	4.77	0.03	0.11	0.49	0.60	0.04	0.45	0.49	3,190.20
Paving Worker Trips	0.02	0.04	0.83	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.03
Building 04/01/2012-12/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	2.57	30.79	25.44	0.09	0.36	1.18	1.54	0.12	1.08	1.20	9,841.34
Building Worker Trips	6.08	10.37	204.65	0.31	1.55	0.72	2.27	0.56	0.58	1.14	31,750.25

Phase Assumptions

Phase: Fine Grading 1/1/2012 - 4/1/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 431.37

Maximum Daily Acreage Disturbed: 50

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

Page: 4

4/1/2008 2:34:16 PM

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
- 3 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 11/1/2014 - 12/31/2014 - Default Paving Description

Acres to be Paved: 117.61

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 4/1/2012 - 12/31/2014 - 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 8/1/2014 - 11/1/2014 - Type Your Description Here

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

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 1/2/2012-3/30/2012 Active Days: 65	10.00	84.04	44.05	0.00	<u>226.76</u>	<u>3.94</u>	<u>230.71</u>	<u>47.36</u>	<u>3.63</u>	<u>50.98</u>	9,098.76
Fine Grading 01/01/2012-04/01/2012	10.00	84.04	44.05	0.00	226.76	3.94	230.71	47.36	3.63	50.98	9,098.76
Fine Grading Dust	0.00	0.00	0.00	0.00	226.75	0.00	226.75	47.35	0.00	47.35	0.00
Fine Grading Off Road Diesel	9.94	83.94	42.08	0.00	0.00	3.94	3.94	0.00	3.62	3.62	8,842.87
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	0.06	0.10	1.97	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.90
Time Slice 4/2/2012-12/31/2012 Active Days: 196	<u>14.09</u>	73.43	287.49	<u>0.40</u>	1.91	3.70	5.61	0.68	3.32	4.00	<u>43,831.05</u>
Building 04/01/2012-12/31/2014	14.09	73.43	287.49	0.40	1.91	3.70	5.61	0.68	3.32	4.00	43,831.05
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	3.11	40.26	29.85	0.09	0.36	1.52	1.88	0.12	1.39	1.52	9,841.71
Building Worker Trips	7.50	12.74	244.02	0.31	1.55	0.76	2.30	0.56	0.62	1.17	31,730.06
Time Slice 1/1/2013-12/31/2013 Active Days: 261	<u>12.74</u>	<u>65.86</u>	<u>264.49</u>	<u>0.40</u>	<u>1.91</u>	<u>3.37</u>	<u>5.28</u>	<u>0.68</u>	<u>3.01</u>	<u>3.69</u>	<u>43,841.20</u>
Building 04/01/2012-12/31/2014	12.74	65.86	264.49	0.40	1.91	3.37	5.28	0.68	3.01	3.69	43,841.20
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	2.84	35.33	27.59	0.09	0.36	1.34	1.70	0.12	1.23	1.35	9,841.39
Building Worker Trips	6.72	11.49	223.56	0.31	1.55	0.76	2.31	0.56	0.62	1.17	31,740.53

4/1/2008 2:34:17 PM

Time Slice 1/1/2014-7/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Active Days: 152											
Building 04/01/2012-12/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	2.57	30.79	25.44	0.09	0.36	1.18	1.54	0.12	1.08	1.20	9,841.34
Building Worker Trips	6.08	10.37	204.65	0.31	1.55	0.72	2.27	0.56	0.58	1.14	31,750.25
Time Slice 8/1/2014-10/31/2014	1,413.39	59.36	253.95	0.42	1.99	3.05	5.04	0.71	2.71	3.42	45,526.15
Active Days: 66											
Building 04/01/2012-12/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	2.57	30.79	25.44	0.09	0.36	1.18	1.54	0.12	1.08	1.20	9,841.34
Building Worker Trips	6.08	10.37	204.65	0.31	1.55	0.72	2.27	0.56	0.58	1.14	31,750.25
Coating 08/01/2014-11/01/2014	1,401.81	0.55	10.80	0.02	0.08	0.04	0.12	0.03	0.03	0.06	1,675.27
Architectural Coating	1,401.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.32	0.55	10.80	0.02	0.08	0.04	0.12	0.03	0.03	0.06	1,675.27
Time Slice 11/3/2014-12/31/2014	22.14	88.00	258.82	0.43	2.03	4.85	6.87	0.72	4.37	5.09	48,587.92
Active Days: 43											
Asphalt 11/01/2014-12/31/2014	10.56	29.19	15.67	0.03	0.12	1.84	1.95	0.04	1.69	1.73	4,737.04
Paving Off-Gas	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.54	15.61	10.07	0.00	0.00	1.34	1.34	0.00	1.24	1.24	1,418.81
Paving On Road Diesel	0.99	13.53	4.77	0.03	0.11	0.49	0.60	0.04	0.45	0.49	3,190.20
Paving Worker Trips	0.02	0.04	0.83	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.03
Building 04/01/2012-12/31/2014	11.58	58.81	243.15	0.40	1.91	3.01	4.92	0.68	2.68	3.36	43,850.88
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	2.57	30.79	25.44	0.09	0.36	1.18	1.54	0.12	1.08	1.20	9,841.34
Building Worker Trips	6.08	10.37	204.65	0.31	1.55	0.72	2.27	0.56	0.58	1.14	31,750.25

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/1/2012 - 4/1/2012 - 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%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP university Construction Phase I.urb924

Project Name: RUSP University Construction Phase I

Project Location: Placer County APCD

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>
2012 TOTALS (lbs/day unmitigated)	10.00	84.04	55.26	0.07	1,000.01	3.94	1,003.95	208.84	3.63	212.47	9,098.76
2012 TOTALS (lbs/day mitigated)	10.00	84.04	55.26	0.07	226.76	3.94	230.71	47.36	3.63	50.98	9,098.76
2013 TOTALS (lbs/day unmitigated)	4.45	21.87	51.24	0.07	0.31	1.29	1.60	0.11	1.17	1.28	8,475.57
2013 TOTALS (lbs/day mitigated)	4.45	21.87	51.24	0.07	0.31	1.29	1.60	0.11	1.17	1.28	8,475.57
2014 TOTALS (lbs/day unmitigated)	255.45	19.98	47.49	0.07	0.31	1.15	1.46	0.11	1.04	1.15	8,477.14
2014 TOTALS (lbs/day mitigated)	255.45	19.98	47.49	0.07	0.31	1.15	1.46	0.11	1.04	1.15	8,477.14

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

4/1/2008 2:35:36 PM

	<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 1/2/2012-3/30/2012 Active Days: 65	<u>10.00</u>	<u>84.04</u>	44.05	0.00	<u>1,000.01</u>	<u>3.94</u>	<u>1,003.95</u>	<u>208.84</u>	<u>3.63</u>	<u>212.47</u>	<u>9,098.76</u>
Fine Grading 01/01/2012-04/01/2012	10.00	84.04	44.05	0.00	1,000.01	3.94	1,003.95	208.84	3.63	212.47	9,098.76
Fine Grading Dust	0.00	0.00	0.00	0.00	1,000.00	0.00	1,000.00	208.84	0.00	208.84	0.00
Fine Grading Off Road Diesel	9.94	83.94	42.08	0.00	0.00	3.94	3.94	0.00	3.62	3.62	8,842.87
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	0.06	0.10	1.97	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.90
Time Slice 4/2/2012-12/31/2012 Active Days: 196	<u>4.89</u>	<u>23.83</u>	<u>55.26</u>	<u>0.07</u>	<u>0.31</u>	<u>1.42</u>	<u>1.74</u>	<u>0.11</u>	<u>1.30</u>	<u>1.41</u>	<u>8,473.93</u>
Building 04/01/2012-01/01/2014	4.89	23.83	55.26	0.07	0.31	1.42	1.74	0.11	1.30	1.41	8,473.93
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.54	6.97	5.38	0.02	0.06	0.26	0.33	0.02	0.24	0.26	1,734.77
Building Worker Trips	1.21	2.06	39.36	0.05	0.25	0.12	0.37	0.09	0.10	0.19	5,117.97
Time Slice 1/1/2013-12/31/2013 Active Days: 261	<u>4.45</u>	<u>21.87</u>	<u>51.24</u>	<u>0.07</u>	<u>0.31</u>	<u>1.29</u>	<u>1.60</u>	<u>0.11</u>	<u>1.17</u>	<u>1.28</u>	<u>8,475.57</u>
Building 04/01/2012-01/01/2014	4.45	21.87	51.24	0.07	0.31	1.29	1.60	0.11	1.17	1.28	8,475.57
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.50	6.11	4.98	0.02	0.06	0.23	0.30	0.02	0.21	0.23	1,734.71
Building Worker Trips	1.08	1.85	36.06	0.05	0.25	0.12	0.37	0.09	0.10	0.19	5,119.66
Time Slice 1/1/2014-1/1/2014 Active Days: 1	<u>4.06</u>	<u>19.98</u>	<u>47.49</u>	<u>0.07</u>	<u>0.31</u>	<u>1.15</u>	<u>1.46</u>	<u>0.11</u>	<u>1.04</u>	<u>1.15</u>	<u>8,477.14</u>
Building 04/01/2012-01/01/2014	4.06	19.98	47.49	0.07	0.31	1.15	1.46	0.11	1.04	1.15	8,477.14
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.45	5.33	4.59	0.02	0.06	0.21	0.27	0.02	0.19	0.21	1,734.71
Building Worker Trips	0.98	1.67	33.01	0.05	0.25	0.12	0.37	0.09	0.09	0.18	5,121.23

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Time Slice 8/1/2014-10/31/2014 Active Days: 66	255.45	0.10	1.97	0.00	0.01	0.01	0.02	0.01	0.01	0.01	305.29
Coating 08/01/2014-11/01/2014	255.45	0.10	1.97	0.00	0.01	0.01	0.02	0.01	0.01	0.01	305.29
Architectural Coating	255.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.06	0.10	1.97	0.00	0.01	0.01	0.02	0.01	0.01	0.01	305.29
Time Slice 11/3/2014-12/31/2014 Active Days: 43	2.68	13.39	9.67	0.00	0.02	1.07	1.09	0.01	0.98	0.99	1,598.25
Asphalt 11/01/2014-12/31/2014	2.68	13.39	9.67	0.00	0.02	1.07	1.09	0.01	0.98	0.99	1,598.25
Paving Off-Gas	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.08	1.11	0.39	0.00	0.01	0.04	0.05	0.00	0.04	0.04	261.49
Paving Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.85

Phase Assumptions

Phase: Fine Grading 1/1/2012 - 4/1/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 431.37

Maximum Daily Acreage Disturbed: 50

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

3 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 11/1/2014 - 12/31/2014 - Default Paving Description

4/1/2008 2:35:36 PM

Acres to be Paved: 9.64

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 4/1/2012 - 1/1/2014 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/1/2014 - 11/1/2014 - Type Your Description Here

- Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- 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>
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4/1/2008 2:35:36 PM

Time Slice 1/2/2012-3/30/2012 Active Days: 65	<u>10.00</u>	<u>84.04</u>	44.05	0.00	<u>226.76</u>	<u>3.94</u>	<u>230.71</u>	<u>47.36</u>	<u>3.63</u>	<u>50.98</u>	<u>9,098.76</u>
Fine Grading 01/01/2012-04/01/2012	10.00	84.04	44.05	0.00	226.76	3.94	230.71	47.36	3.63	50.98	9,098.76
Fine Grading Dust	0.00	0.00	0.00	0.00	226.75	0.00	226.75	47.35	0.00	47.35	0.00
Fine Grading Off Road Diesel	9.94	83.94	42.08	0.00	0.00	3.94	3.94	0.00	3.62	3.62	8,842.87
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	0.06	0.10	1.97	0.00	0.01	0.01	0.02	0.00	0.00	0.01	255.90
Time Slice 4/2/2012-12/31/2012 Active Days: 196	4.89	23.83	<u>55.26</u>	<u>0.07</u>	0.31	1.42	1.74	0.11	1.30	1.41	8,473.93
Building 04/01/2012-01/01/2014	4.89	23.83	55.26	0.07	0.31	1.42	1.74	0.11	1.30	1.41	8,473.93
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.54	6.97	5.38	0.02	0.06	0.26	0.33	0.02	0.24	0.26	1,734.77
Building Worker Trips	1.21	2.06	39.36	0.05	0.25	0.12	0.37	0.09	0.10	0.19	5,117.97
Time Slice 1/1/2013-12/31/2013 Active Days: 261	<u>4.45</u>	<u>21.87</u>	<u>51.24</u>	<u>0.07</u>	<u>0.31</u>	<u>1.29</u>	<u>1.60</u>	<u>0.11</u>	<u>1.17</u>	<u>1.28</u>	<u>8,475.57</u>
Building 04/01/2012-01/01/2014	4.45	21.87	51.24	0.07	0.31	1.29	1.60	0.11	1.17	1.28	8,475.57
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.50	6.11	4.98	0.02	0.06	0.23	0.30	0.02	0.21	0.23	1,734.71
Building Worker Trips	1.08	1.85	36.06	0.05	0.25	0.12	0.37	0.09	0.10	0.19	5,119.66
Time Slice 1/1/2014-1/1/2014 Active Days: 1	4.06	<u>19.98</u>	<u>47.49</u>	<u>0.07</u>	<u>0.31</u>	<u>1.15</u>	<u>1.46</u>	<u>0.11</u>	<u>1.04</u>	<u>1.15</u>	<u>8,477.14</u>
Building 04/01/2012-01/01/2014	4.06	19.98	47.49	0.07	0.31	1.15	1.46	0.11	1.04	1.15	8,477.14
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.45	5.33	4.59	0.02	0.06	0.21	0.27	0.02	0.19	0.21	1,734.71
Building Worker Trips	0.98	1.67	33.01	0.05	0.25	0.12	0.37	0.09	0.09	0.18	5,121.23

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Time Slice 8/1/2014-10/31/2014 Active Days: 66	255.45	0.10	1.97	0.00	0.01	0.01	0.02	0.01	0.01	0.01	305.29
Coating 08/01/2014-11/01/2014	255.45	0.10	1.97	0.00	0.01	0.01	0.02	0.01	0.01	0.01	305.29
Architectural Coating	255.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.06	0.10	1.97	0.00	0.01	0.01	0.02	0.01	0.01	0.01	305.29
Time Slice 11/3/2014-12/31/2014 Active Days: 43	2.68	13.39	9.67	0.00	0.02	1.07	1.09	0.01	0.98	0.99	1,598.25
Asphalt 11/01/2014-12/31/2014	2.68	13.39	9.67	0.00	0.02	1.07	1.09	0.01	0.98	0.99	1,598.25
Paving Off-Gas	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.08	1.11	0.39	0.00	0.01	0.04	0.05	0.00	0.04	0.04	261.49
Paving Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.85

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/1/2012 - 4/1/2012 - 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%

Road Construction Emissions Model, Version 5.2

Emission Estimates for -> RUSP Watt					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)
Grubbing/Land Clearing	17	77	79	49	4	45
Grading/Excavation	15	62	67	49	4	45
Drainage/Utilities/Sub-Grade	14	60	62	49	4	45
Paving	9	43	51	3	3	0
Maximum (pounds/day)	17	77	79	49	4	45
Total (tons/construction project)	0.90	3.38	4.60	2.77	0.25	2.52 <-tons

Notes: Project Start Year -> 2009
 Project Length (months) -> 6
 Total Project Area (acres) -> 35
 Maximum Area Disturbed/Day (acres) -> 9
 Total Soil Imported/Exported (yd³/day)-> 0

PM10 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.

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Operational 2010 summer and winter unmitigated.urb924

Project Name: RUSP Operational 2010 Summer and Winter Unmitigated

Project Location: Placer County APCD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

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)	257.43	61.75	152.77	0.01	0.44	0.43	75,643.72

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)	356.48	353.35	3,066.91	2.65	459.43	89.41	270,796.01

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)	613.91	415.10	3,219.68	2.66	459.87	89.84	346,439.73

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	4.56	60.39	34.60	0.00	0.11	0.11	75,450.70
Hearth - No Summer Emissions							
Landscape	19.79	1.36	118.17	0.01	0.33	0.32	193.02
Consumer Products	177.93						
Architectural Coatings	55.15						
TOTALS (lbs/day, unmitigated)	257.43	61.75	152.77	0.01	0.44	0.43	75,643.72

Area Source Changes to Defaults

4/9/2008 5:09:05 PM

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	118.04	142.19	1,256.07	1.08	185.29	36.08	109,610.84
Apartments low rise	40.12	45.12	398.61	0.34	58.80	11.45	34,784.33
Condo/townhouse general	17.83	21.56	190.49	0.16	28.10	5.47	16,623.14
Retirement community	1.95	1.86	16.41	0.01	2.42	0.47	1,431.70
Elementary school	8.19	4.21	36.05	0.03	5.46	1.06	3,210.67
Junior high school	11.15	6.60	56.59	0.05	8.57	1.67	5,040.00
High school	17.84	10.60	90.06	0.08	13.75	2.67	8,068.63
Junior college (2 yrs)	59.74	23.09	195.15	0.17	29.92	5.82	17,539.80
University/college (4 yrs)	25.90	18.63	157.51	0.14	24.15	4.70	14,156.20
Retail CMU	26.02	37.18	313.34	0.28	48.16	9.36	28,216.35
Retail CPD	29.70	42.31	356.63	0.31	54.81	10.66	32,114.35
TOTALS (lbs/day, unmitigated)	356.48	353.35	3,066.91	2.65	459.43	89.41	270,796.01

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 41.15 Nonresidential Trip % Reduction: 47.51

Analysis Year: 2010 Temperature (F): 85 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
Single family housing	742.00	5.63	dwelling units	2,226.00	12,537.66	107,193.27
Apartments low rise	62.88	3.96	dwelling units	1,006.00	3,978.75	34,017.13
Condo/townhouse general	20.62	5.76	dwelling units	330.00	1,901.41	16,256.50
Retirement community	15.00	2.18	dwelling units	75.00	163.76	1,400.12
Elementary school		0.68	1000 sq ft	600.00	406.27	3,160.78
Junior high school		0.85	1000 sq ft	750.00	637.75	4,961.69
High school		0.88	students	1,200.00	1,051.89	7,957.57
Junior college (2 yrs)		0.47	students	4,970.00	2,321.78	17,314.65
University/college (4 yrs)		1.25	students	1,500.00	1,873.88	13,974.48
Retail CMU		34.59	1000 sq ft	109.00	3,769.82	27,870.24
Retail CPD		32.26	1000 sq ft	133.00	4,290.60	31,720.42
					32,933.57	265,826.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.8	1.3	98.4	0.3
Light Truck < 3750 lbs	14.2	2.8	88.7	8.5
Light Truck 3751-5750 lbs	22.4	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	73.1	26.9
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Heavy-Heavy Truck 33,001-60,000 lbs	1.2	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	67.3	32.7	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			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Junior high school	20.0	10.0	70.0
High school	10.0	5.0	85.0
Junior college (2 yrs)	5.0	2.5	92.5
University/college (4 yrs)	5.0	2.5	92.5
Retail CMU	2.0	1.0	97.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Retail CPD				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Operational 2010 summer and winter unmitigated.urb924

Project Name: RUSP Operational 2010 Summer and Winter Unmitigated

Project Location: Placer County APCD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

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)	969.21	146.69	3,888.14	12.00	618.83	595.65	195,231.03

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)	311.07	506.35	3,479.84	2.36	459.43	89.41	236,504.46

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)	1,280.28	653.04	7,367.98	14.36	1,078.26	685.06	431,735.49

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	4.56	60.39	34.60	0.00	0.11	0.11	75,450.70
Hearth	731.57	86.30	3,853.54	12.00	618.72	595.54	119,780.33
Landscaping - No Winter Emissions							
Consumer Products	177.93						
Architectural Coatings	55.15						
TOTALS (lbs/day, unmitigated)	969.21	146.69	3,888.14	12.00	618.83	595.65	195,231.03

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	125.28	203.92	1,411.38	0.96	185.29	36.08	95,782.95
Apartments low rise	39.76	64.71	447.89	0.30	58.80	11.45	30,396.14
Condo/townhouse general	19.00	30.93	214.04	0.15	28.10	5.47	14,526.06
Retirement community	1.64	2.66	18.43	0.01	2.42	0.47	1,251.08
Elementary school	3.68	6.03	41.08	0.03	5.46	1.06	2,802.93
Junior high school	5.78	9.46	64.49	0.04	8.57	1.67	4,399.95
High school	9.31	15.18	103.33	0.07	13.75	2.67	7,042.11
Junior college (2 yrs)	20.30	33.04	224.71	0.15	29.92	5.82	15,306.22
University/college (4 yrs)	16.38	26.67	181.36	0.12	24.15	4.70	12,353.49
Retail CMU	32.71	53.20	361.59	0.25	48.16	9.36	24,621.10
Retail CPD	37.23	60.55	411.54	0.28	54.81	10.66	28,022.43
TOTALS (lbs/day, unmitigated)	311.07	506.35	3,479.84	2.36	459.43	89.41	236,504.46

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 41.15 Nonresidential Trip % Reduction: 47.51

Analysis Year: 2010 Temperature (F): 40 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	742.00	5.63	dwelling units	2,226.00	12,537.66	107,193.27
Apartments low rise	62.88	3.96	dwelling units	1,006.00	3,978.75	34,017.13
Condo/townhouse general	20.62	5.76	dwelling units	330.00	1,901.41	16,256.50
Retirement community	15.00	2.18	dwelling units	75.00	163.76	1,400.12
Elementary school		0.68	1000 sq ft	600.00	406.27	3,160.78
Junior high school		0.85	1000 sq ft	750.00	637.75	4,961.69
High school		0.88	students	1,200.00	1,051.89	7,957.57
Junior college (2 yrs)		0.47	students	4,970.00	2,321.78	17,314.65
University/college (4 yrs)		1.25	students	1,500.00	1,873.88	13,974.48
Retail CMU		34.59	1000 sq ft	109.00	3,769.82	27,870.24
Retail CPD		32.26	1000 sq ft	133.00	4,290.60	31,720.42
					32,933.57	265,826.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.8	1.3	98.4	0.3
Light Truck < 3750 lbs	14.2	2.8	88.7	8.5
Light Truck 3751-5750 lbs	22.4	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	73.1	26.9
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Heavy-Heavy Truck 33,001-60,000 lbs	1.2	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	67.3	32.7	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			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Junior high school	20.0	10.0	70.0
High school	10.0	5.0	85.0
Junior college (2 yrs)	5.0	2.5	92.5
University/college (4 yrs)	5.0	2.5	92.5
Retail CMU	2.0	1.0	97.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Retail CPD				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Operational 2010_winter mitigated.urb924

Project Name: RUSP Operational 2010 Winter mitigated

Project Location: Placer County APCD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

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)	239.19	86.86	45.86	0.17	2.25	2.23	109,244.82

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)	311.07	506.35	3,479.84	2.36	459.43	89.41	236,504.46

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)	550.26	593.21	3,525.70	2.53	461.68	91.64	345,749.28

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	4.56	60.39	34.60	0.00	0.11	0.11	75,450.70
Hearth	1.55	26.47	11.26	0.17	2.14	2.12	33,794.12
Landscaping - No Winter Emissions							
Consumer Products	177.93						
Architectural Coatings	55.15						
TOTALS (lbs/day, unmitigated)	239.19	86.86	45.86	0.17	2.25	2.23	109,244.82

Area Source Changes to Defaults

- Percentage of residences with wood stoves changed from 35% to 0%
- Percentage of residences with wood fireplaces changed from 10% to 0%
- Percentage of residences with natural gas fireplaces changed from 55% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	125.28	203.92	1,411.38	0.96	185.29	36.08	95,782.95
Apartments low rise	39.76	64.71	447.89	0.30	58.80	11.45	30,396.14
Condo/townhouse general	19.00	30.93	214.04	0.15	28.10	5.47	14,526.06
Retirement community	1.64	2.66	18.43	0.01	2.42	0.47	1,251.08
Elementary school	3.68	6.03	41.08	0.03	5.46	1.06	2,802.93
Junior high school	5.78	9.46	64.49	0.04	8.57	1.67	4,399.95
High school	9.31	15.18	103.33	0.07	13.75	2.67	7,042.11
Junior college (2 yrs)	20.30	33.04	224.71	0.15	29.92	5.82	15,306.22
University/college (4 yrs)	16.38	26.67	181.36	0.12	24.15	4.70	12,353.49
Retail CMU	32.71	53.20	361.59	0.25	48.16	9.36	24,621.10
Retail CPD	37.23	60.55	411.54	0.28	54.81	10.66	28,022.43
TOTALS (lbs/day, unmitigated)	311.07	506.35	3,479.84	2.36	459.43	89.41	236,504.46

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 41.15 Nonresidential Trip % Reduction: 47.51

Analysis Year: 2010 Temperature (F): 40 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	742.00	5.63	dwelling units	2,226.00	12,537.66	107,193.27
Apartments low rise	62.88	3.96	dwelling units	1,006.00	3,978.75	34,017.13
Condo/townhouse general	20.62	5.76	dwelling units	330.00	1,901.41	16,256.50
Retirement community	15.00	2.18	dwelling units	75.00	163.76	1,400.12
Elementary school		0.68	1000 sq ft	600.00	406.27	3,160.78
Junior high school		0.85	1000 sq ft	750.00	637.75	4,961.69
High school		0.88	students	1,200.00	1,051.89	7,957.57
Junior college (2 yrs)		0.47	students	4,970.00	2,321.78	17,314.65
University/college (4 yrs)		1.25	students	1,500.00	1,873.88	13,974.48
Retail CMU		34.59	1000 sq ft	109.00	3,769.82	27,870.24
Retail CPD		32.26	1000 sq ft	133.00	4,290.60	31,720.42
					32,933.57	265,826.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.8	1.3	98.4	0.3
Light Truck < 3750 lbs	14.2	2.8	88.7	8.5
Light Truck 3751-5750 lbs	22.4	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	73.1	26.9
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Heavy-Heavy Truck 33,001-60,000 lbs	1.2	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	67.3	32.7	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			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Junior high school	20.0	10.0	70.0
High school	10.0	5.0	85.0
Junior college (2 yrs)	5.0	2.5	92.5
University/college (4 yrs)	5.0	2.5	92.5
Retail CMU	2.0	1.0	97.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Retail CPD				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Operational 2020 summer and winter unmitigated.urb924

Project Name: RUSP Operational 2020 Summer and Winter Unmitigated

Project Location: Placer County APCD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

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)	257.43	61.75	152.77	0.01	0.44	0.43	75,643.72

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)	206.81	145.51	1,510.26	2.63	456.62	86.92	270,524.38

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)	464.24	207.26	1,663.03	2.64	457.06	87.35	346,168.10

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	4.56	60.39	34.60	0.00	0.11	0.11	75,450.70
Hearth - No Summer Emissions							
Landscape	19.79	1.36	118.17	0.01	0.33	0.32	193.02
Consumer Products	177.93						
Architectural Coatings	55.15						
TOTALS (lbs/day, unmitigated)	257.43	61.75	152.77	0.01	0.44	0.43	75,643.72

Area Source Changes to Defaults

4/9/2008 4:54:39 PM

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	66.10	58.51	619.18	1.07	184.16	35.09	109,507.98
Apartments low rise	22.74	18.57	196.49	0.34	58.44	11.13	34,751.69
Condo/townhouse general	9.98	8.87	93.90	0.16	27.93	5.32	16,607.54
Retirement community	1.13	0.76	8.09	0.01	2.41	0.46	1,430.36
Elementary school	5.09	1.73	17.74	0.03	5.43	1.03	3,207.31
Junior high school	6.86	2.72	27.84	0.05	8.52	1.62	5,034.72
High school	10.97	4.37	44.29	0.08	13.67	2.60	8,059.91
Junior college (2 yrs)	37.77	9.52	95.95	0.17	29.73	5.65	17,520.52
University/college (4 yrs)	15.67	7.68	77.44	0.14	24.00	4.56	14,140.63
Retail CMU	14.24	15.33	154.03	0.27	47.86	9.10	28,185.03
Retail CPD	16.26	17.45	175.31	0.31	54.47	10.36	32,078.69
TOTALS (lbs/day, unmitigated)	206.81	145.51	1,510.26	2.63	456.62	86.92	270,524.38

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 41.15 Nonresidential Trip % Reduction: 47.51

Analysis Year: 2020 Temperature (F): 85 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
Single family housing	742.00	5.63	dwelling units	2,226.00	12,537.66	107,193.27
Apartments low rise	62.88	3.96	dwelling units	1,006.00	3,978.75	34,017.13
Condo/townhouse general	20.62	5.76	dwelling units	330.00	1,901.41	16,256.50
Retirement community	15.00	2.18	dwelling units	75.00	163.76	1,400.12
Elementary school		0.68	1000 sq ft	600.00	406.27	3,160.78
Junior high school		0.85	1000 sq ft	750.00	637.75	4,961.69
High school		0.88	students	1,200.00	1,051.89	7,957.57
Junior college (2 yrs)		0.47	students	4,970.00	2,321.78	17,314.65
University/college (4 yrs)		1.25	students	1,500.00	1,873.88	13,974.48
Retail CMU		34.59	1000 sq ft	109.00	3,769.82	27,870.24
Retail CPD		32.26	1000 sq ft	133.00	4,290.60	31,720.42
					32,933.57	265,826.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	40.1	0.0	100.0	0.0
Light Truck < 3750 lbs	13.9	0.0	96.4	3.6
Light Truck 3751-5750 lbs	22.4	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	76.9	23.1
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Heavy-Heavy Truck 33,001-60,000 lbs	1.1	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	40.0	60.0	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			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Junior high school	20.0	10.0	70.0
High school	10.0	5.0	85.0
Junior college (2 yrs)	5.0	2.5	92.5
University/college (4 yrs)	5.0	2.5	92.5
Retail CMU	2.0	1.0	97.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Retail CPD				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Operational 2020 summer and winter unmitigated.urb924

Project Name: RUSP Operational 2020 Summer and Winter Unmitigated

Project Location: Placer County APCD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

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)	969.21	146.69	3,888.14	12.00	618.83	595.65	195,231.03

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)	159.78	211.79	1,644.45	2.33	456.62	86.92	235,160.23

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)	1,128.99	358.48	5,532.59	14.33	1,075.45	682.57	430,391.26

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	4.56	60.39	34.60	0.00	0.11	0.11	75,450.70
Hearth	731.57	86.30	3,853.54	12.00	618.72	595.54	119,780.33
Landscaping - No Winter Emissions							
Consumer Products	177.93						
Architectural Coatings	55.15						
TOTALS (lbs/day, unmitigated)	969.21	146.69	3,888.14	12.00	618.83	595.65	195,231.03

Area Source Changes to Defaults

4/9/2008 4:56:35 PM

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	64.38	85.23	667.37	0.95	184.16	35.09	95,247.58
Apartments low rise	20.43	27.05	211.79	0.30	58.44	11.13	30,226.24
Condo/townhouse general	9.76	12.93	101.21	0.14	27.93	5.32	14,444.86
Retirement community	0.84	1.11	8.72	0.01	2.41	0.46	1,244.09
Elementary school	1.89	2.52	19.40	0.03	5.43	1.03	2,786.81
Junior high school	2.97	3.96	30.45	0.04	8.52	1.62	4,374.65
High school	4.78	6.35	48.79	0.07	13.67	2.60	7,001.28
Junior college (2 yrs)	10.42	13.84	106.09	0.15	29.73	5.65	15,217.07
University/college (4 yrs)	8.41	11.17	85.63	0.12	24.00	4.56	12,281.55
Retail CMU	16.79	22.28	170.71	0.24	47.86	9.10	24,477.32
Retail CPD	19.11	25.35	194.29	0.28	54.47	10.36	27,858.78
TOTALS (lbs/day, unmitigated)	159.78	211.79	1,644.45	2.33	456.62	86.92	235,160.23

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 41.15 Nonresidential Trip % Reduction: 47.51

Analysis Year: 2020 Temperature (F): 40 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	742.00	5.63	dwelling units	2,226.00	12,537.66	107,193.27
Apartments low rise	62.88	3.96	dwelling units	1,006.00	3,978.75	34,017.13
Condo/townhouse general	20.62	5.76	dwelling units	330.00	1,901.41	16,256.50
Retirement community	15.00	2.18	dwelling units	75.00	163.76	1,400.12
Elementary school		0.68	1000 sq ft	600.00	406.27	3,160.78
Junior high school		0.85	1000 sq ft	750.00	637.75	4,961.69
High school		0.88	students	1,200.00	1,051.89	7,957.57
Junior college (2 yrs)		0.47	students	4,970.00	2,321.78	17,314.65
University/college (4 yrs)		1.25	students	1,500.00	1,873.88	13,974.48
Retail CMU		34.59	1000 sq ft	109.00	3,769.82	27,870.24
Retail CPD		32.26	1000 sq ft	133.00	4,290.60	31,720.42
					32,933.57	265,826.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	40.1	0.0	100.0	0.0
Light Truck < 3750 lbs	13.9	0.0	96.4	3.6
Light Truck 3751-5750 lbs	22.4	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	76.9	23.1
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Heavy-Heavy Truck 33,001-60,000 lbs	1.1	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	40.0	60.0	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			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Junior high school	20.0	10.0	70.0
High school	10.0	5.0	85.0
Junior college (2 yrs)	5.0	2.5	92.5
University/college (4 yrs)	5.0	2.5	92.5
Retail CMU	2.0	1.0	97.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Retail CPD				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\21479\Application Data\Urbemis\Version9a\Projects\RUSP Operational 2020_winter mitigated.urb924

Project Name: RUSP Operational 2020 Winter mitigated

Project Location: Placer County APCD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

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)	239.19	86.86	45.86	0.17	2.25	2.23	109,244.82

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)	159.78	211.79	1,644.45	2.33	456.62	86.92	235,160.23

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)	398.97	298.65	1,690.31	2.50	458.87	89.15	344,405.05

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	4.56	60.39	34.60	0.00	0.11	0.11	75,450.70
Hearth	1.55	26.47	11.26	0.17	2.14	2.12	33,794.12
Landscaping - No Winter Emissions							
Consumer Products	177.93						
Architectural Coatings	55.15						
TOTALS (lbs/day, unmitigated)	239.19	86.86	45.86	0.17	2.25	2.23	109,244.82

Area Source Changes to Defaults

- Percentage of residences with wood stoves changed from 35% to 0%
- Percentage of residences with wood fireplaces changed from 10% to 0%
- Percentage of residences with natural gas fireplaces changed from 55% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	64.38	85.23	667.37	0.95	184.16	35.09	95,247.58
Apartments low rise	20.43	27.05	211.79	0.30	58.44	11.13	30,226.24
Condo/townhouse general	9.76	12.93	101.21	0.14	27.93	5.32	14,444.86
Retirement community	0.84	1.11	8.72	0.01	2.41	0.46	1,244.09
Elementary school	1.89	2.52	19.40	0.03	5.43	1.03	2,786.81
Junior high school	2.97	3.96	30.45	0.04	8.52	1.62	4,374.65
High school	4.78	6.35	48.79	0.07	13.67	2.60	7,001.28
Junior college (2 yrs)	10.42	13.84	106.09	0.15	29.73	5.65	15,217.07
University/college (4 yrs)	8.41	11.17	85.63	0.12	24.00	4.56	12,281.55
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Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

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High school		0.88	students	1,200.00	1,051.89	7,957.57
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Retail CPD		32.26	1000 sq ft	133.00	4,290.60	31,720.42
					32,933.57	265,826.85

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	40.1	0.0	100.0	0.0
Light Truck < 3750 lbs	13.9	0.0	96.4	3.6
Light Truck 3751-5750 lbs	22.4	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	76.9	23.1
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Heavy-Heavy Truck 33,001-60,000 lbs	1.1	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	40.0	60.0	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			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
Junior high school	20.0	10.0	70.0
High school	10.0	5.0	85.0
Junior college (2 yrs)	5.0	2.5	92.5
University/college (4 yrs)	5.0	2.5	92.5
Retail CMU	2.0	1.0	97.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Retail CPD				2.0	1.0	97.0