



Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\rmamaghani\Application Data\Urbemis\Version9a\Projects\CSU Grading Emissions.urb924

Project Name: 991-02 CSU Hayward Construction Emissions

Project Location: Bay Area Air District

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)	7.76	46.72	29.24	0.00	40.68	3.10	43.78	8.50	2.85	11.35	4,166.37
2010 TOTALS (lbs/day unmitigated)	10.21	61.54	39.01	0.00	40.69	4.38	45.07	8.50	4.03	12.53	5,569.12
2011 TOTALS (lbs/day unmitigated)	9.54	58.17	37.67	0.00	40.69	4.17	44.85	8.50	3.83	12.33	5,569.26
2012 TOTALS (lbs/day unmitigated)	8.92	54.86	36.48	0.00	40.69	3.85	44.53	8.50	3.54	12.04	5,569.40
2013 TOTALS (lbs/day unmitigated)	8.33	51.65	35.33	0.00	40.69	3.51	44.20	8.50	3.23	11.73	5,569.53
2014 TOTALS (lbs/day unmitigated)	7.74	48.40	34.31	0.00	40.69	3.19	43.87	8.50	2.93	11.43	5,569.64
2015 TOTALS (lbs/day unmitigated)	7.18	44.96	33.31	0.00	40.69	2.94	43.62	8.50	2.70	11.20	5,569.74

2016 TOTALS (lbs/day unmitigated)	6.64	41.79	32.47	0.00	40.69	2.65	43.34	8.50	2.44	10.94	5,569.80
2017 TOTALS (lbs/day unmitigated)	6.17	38.84	31.71	0.00	40.69	2.40	43.08	8.50	2.20	10.70	5,569.85
2018 TOTALS (lbs/day unmitigated)	5.69	36.04	31.01	0.00	40.69	2.13	42.82	8.50	1.96	10.46	5,569.89
2019 TOTALS (lbs/day unmitigated)	5.26	33.43	30.37	0.00	40.69	1.88	42.57	8.50	1.73	10.23	5,569.92
2020 TOTALS (lbs/day unmitigated)	4.87	31.10	29.86	0.00	40.69	1.74	42.42	8.50	1.60	10.10	5,569.96
2021 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2022 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2023 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2024 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2025 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2026 TOTALS (lbs/day unmitigated)	4.84	30.97	29.26	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.27
2027 TOTALS (lbs/day unmitigated)	4.84	30.97	29.26	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.27







10/1/2008 2:12:36 PM

Time Slice 7/1/2010-9/30/2010 Active Days: 66	7.30	44.31	28.18	0.00	40.68	2.88	43.56	8.50	2.65	11.14	4,166.43
Building 01/01/2009-06/30/2030	3.79	17.78	11.74	0.00	0.00	1.25	1.25	0.00	1.15	1.15	1,747.08
Building Off Road Diesel	3.79	17.78	11.73	0.00	0.00	1.25	1.25	0.00	1.15	1.15	1,746.33
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
Building Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Coating 07/01/2010-12/31/2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition 07/01/2009-01/01/2028	3.51	26.53	16.44	0.00	0.68	1.63	2.31	0.14	1.50	1.64	2,419.35
Fugitive Dust	0.00	0.00	0.00	0.00	0.67	0.00	0.67	0.14	0.00	0.14	0.00
Demo Off Road Diesel	3.43	25.84	15.08	0.00	0.00	1.60	1.60	0.00	1.48	1.48	2,227.97
Demo On Road Diesel	0.04	0.63	0.20	0.00	0.00	0.02	0.03	0.00	0.02	0.02	89.47
Demo Worker Trips	0.04	0.07	1.16	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.91
Mass Grading 07/01/2009-06/30/2030	0.00	0.00	0.00	0.00	40.00	0.00	40.00	8.35	0.00	8.35	0.00
Mass Grading Dust	0.00	0.00	0.00	0.00	40.00	0.00	40.00	8.35	0.00	8.35	0.00
Mass Grading Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 10/1/2010-12/31/2010 Active Days: 66	<b>10.21</b>	<b>61.54</b>	<b>39.01</b>	<b>0.00</b>	<b>40.69</b>	<b>4.38</b>	<b>45.07</b>	<b>8.50</b>	<b>4.03</b>	<b>12.53</b>	<b>5,569.12</b>

















































10/1/2008 2:12:40 PM

Phase Assumptions

Phase: Demolition 7/1/2009 - 1/1/2028 - Type Your Description Here

Building Volume Total (cubic feet): 1650000

Building Volume Daily (cubic feet): 1600

On Road Truck Travel (VMT): 22.22

Off-Road Equipment:

1 Rubber Tired Dozers (357 hp) operating at a 0.59 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

Phase: Mass Grading 7/1/2009 - 6/30/2030 - Default Fine Site Grading Description

Total Acres Disturbed: 50

Maximum Daily Acreage Disturbed: 2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

Phase: Paving 10/1/2010 - 6/30/2030 - Default Paving Description

Acres to be Paved: 12.5

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 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 1/1/2009 - 6/30/2030 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

Page: 29

**10/1/2008 2:12:40 PM**

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 7/1/2010 - 12/31/2030 - Default Architectural Coating Description

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

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\rmamaghani\Application Data\Urbemis\Version9a\Projects\CSU Grading Emissions.urb924

Project Name: 991-02 CSU Hayward Construction Emissions

Project Location: Bay Area Air District

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)	7.76	46.72	29.24	0.00	40.68	3.10	43.78	8.50	2.85	11.35	4,166.37
2010 TOTALS (lbs/day unmitigated)	10.21	61.54	39.01	0.00	40.69	4.38	45.07	8.50	4.03	12.53	5,569.12
2011 TOTALS (lbs/day unmitigated)	9.54	58.17	37.67	0.00	40.69	4.17	44.85	8.50	3.83	12.33	5,569.26
2012 TOTALS (lbs/day unmitigated)	8.92	54.86	36.48	0.00	40.69	3.85	44.53	8.50	3.54	12.04	5,569.40
2013 TOTALS (lbs/day unmitigated)	8.33	51.65	35.33	0.00	40.69	3.51	44.20	8.50	3.23	11.73	5,569.53
2014 TOTALS (lbs/day unmitigated)	7.74	48.40	34.31	0.00	40.69	3.19	43.87	8.50	2.93	11.43	5,569.64
2015 TOTALS (lbs/day unmitigated)	7.18	44.96	33.31	0.00	40.69	2.94	43.62	8.50	2.70	11.20	5,569.74

2016 TOTALS (lbs/day unmitigated)	6.64	41.79	32.47	0.00	40.69	2.65	43.34	8.50	2.44	10.94	5,569.80
2017 TOTALS (lbs/day unmitigated)	6.17	38.84	31.71	0.00	40.69	2.40	43.08	8.50	2.20	10.70	5,569.85
2018 TOTALS (lbs/day unmitigated)	5.69	36.04	31.01	0.00	40.69	2.13	42.82	8.50	1.96	10.46	5,569.89
2019 TOTALS (lbs/day unmitigated)	5.26	33.43	30.37	0.00	40.69	1.88	42.57	8.50	1.73	10.23	5,569.92
2020 TOTALS (lbs/day unmitigated)	4.87	31.10	29.86	0.00	40.69	1.74	42.42	8.50	1.60	10.10	5,569.96
2021 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2022 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2023 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2024 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2025 TOTALS (lbs/day unmitigated)	4.85	31.01	29.47	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.11
2026 TOTALS (lbs/day unmitigated)	4.84	30.97	29.26	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.27
2027 TOTALS (lbs/day unmitigated)	4.84	30.97	29.26	0.00	40.69	1.73	42.42	8.50	1.59	10.09	5,570.27









10/1/2008 2:11:57 PM

Time Slice 7/1/2010-9/30/2010 Active Days: 66	7.30	44.31	28.18	0.00	40.68	2.88	43.56	8.50	2.65	11.14	4,166.43
Building 01/01/2009-06/30/2030	3.79	17.78	11.74	0.00	0.00	1.25	1.25	0.00	1.15	1.15	1,747.08
Building Off Road Diesel	3.79	17.78	11.73	0.00	0.00	1.25	1.25	0.00	1.15	1.15	1,746.33
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
Building Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Coating 07/01/2010-12/31/2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition 07/01/2009-01/01/2028	3.51	26.53	16.44	0.00	0.68	1.63	2.31	0.14	1.50	1.64	2,419.35
Fugitive Dust	0.00	0.00	0.00	0.00	0.67	0.00	0.67	0.14	0.00	0.14	0.00
Demo Off Road Diesel	3.43	25.84	15.08	0.00	0.00	1.60	1.60	0.00	1.48	1.48	2,227.97
Demo On Road Diesel	0.04	0.63	0.20	0.00	0.00	0.02	0.03	0.00	0.02	0.02	89.47
Demo Worker Trips	0.04	0.07	1.16	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.91
Mass Grading 07/01/2009-06/30/2030	0.00	0.00	0.00	0.00	40.00	0.00	40.00	8.35	0.00	8.35	0.00
Mass Grading Dust	0.00	0.00	0.00	0.00	40.00	0.00	40.00	8.35	0.00	8.35	0.00
Mass Grading Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time Slice 10/1/2010-12/31/2010 Active Days: 66	<b>10.21</b>	<b>61.54</b>	<b>39.01</b>	<b>0.00</b>	<b>40.69</b>	<b>4.38</b>	<b>45.07</b>	<b>8.50</b>	<b>4.03</b>	<b>12.53</b>	<b>5,569.12</b>

















































10/1/2008 2:12:02 PM

Phase Assumptions

Phase: Demolition 7/1/2009 - 1/1/2028 - Type Your Description Here

Building Volume Total (cubic feet): 1650000

Building Volume Daily (cubic feet): 1600

On Road Truck Travel (VMT): 22.22

Off-Road Equipment:

1 Rubber Tired Dozers (357 hp) operating at a 0.59 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

Phase: Mass Grading 7/1/2009 - 6/30/2030 - Default Fine Site Grading Description

Total Acres Disturbed: 50

Maximum Daily Acreage Disturbed: 2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

Phase: Paving 10/1/2010 - 6/30/2030 - Default Paving Description

Acres to be Paved: 12.5

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 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 1/1/2009 - 6/30/2030 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

Page: 29

**10/1/2008 2:12:02 PM**

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 7/1/2010 - 12/31/2030 - Default Architectural Coating Description

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