

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

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

Project Name: CSU Hayward Mobile Source 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:

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)	36.88	41.95	374.98	0.82	170.91	32.32	82,421.36
TOTALS (lbs/day, mitigated)	18.44	20.97	187.49	0.41	85.45	16.16	41,210.68
Percent Reduction	50.00	50.01	50.00	50.00	50.00	50.00	50.00

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)	36.88	41.95	374.98	0.82	170.91	32.32	82,421.36

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
University/college (4 yrs)	36.88	41.95	374.98	0.82	170.91	32.32	82,421.36
TOTALS (lbs/day, unmitigated)	36.88	41.95	374.98	0.82	170.91	32.32	82,421.36

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
University/college (4 yrs)	18.44	20.97	187.49	0.41	85.45	16.16	41,210.68
TOTALS (lbs/day, mitigated)	18.44	20.97	187.49	0.41	85.45	16.16	41,210.68

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 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
University/college (4 yrs)		1.71	students	8,453.00	14,454.63	99,710.75
					14,454.63	99,710.75

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.1	0.0	100.0	0.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck < 3750 lbs	12.5	0.0	99.2	0.8
Light Truck 3751-5750 lbs	19.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	34.4	65.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		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)

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
University/college (4 yrs)				5.0	2.5	92.5

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Combined Summer Emissions Reports (Pounds/Day)

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

Project Name: CSU Hayward Mobile Source 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:

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)	67.39	28.24	356.47	0.95	170.91	32.32	95,992.21
TOTALS (lbs/day, mitigated)	52.15	14.12	178.23	0.47	85.45	16.16	47,996.10
Percent Reduction	22.61	50.00	50.00	50.53	50.00	50.00	50.00

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)	67.39	28.24	356.47	0.95	170.91	32.32	95,992.21

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
University/college (4 yrs)	67.39	28.24	356.47	0.95	170.91	32.32	95,992.21
TOTALS (lbs/day, unmitigated)	67.39	28.24	356.47	0.95	170.91	32.32	95,992.21

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
University/college (4 yrs)	52.15	14.12	178.23	0.47	85.45	16.16	47,996.10
TOTALS (lbs/day, mitigated)	52.15	14.12	178.23	0.47	85.45	16.16	47,996.10

Operational Settings:

Includes correction for passby trips
 Does not include double counting adjustment for internal trips
 Analysis Year: 2030 Temperature (F): 85 Season: Summer
 Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Vehicle Fleet Mix

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Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	34.4	65.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commuter	Commercial	
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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)

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
University/college (4 yrs)				5.0	2.5	92.5

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Combined Annual Emissions Reports (Tons/Year)

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

Project Name: CSU Hayward Mobile Source 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:

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)	10.44	5.99	66.18	0.17	31.19	5.90	16,693.02
TOTALS (tons/year, mitigated)	7.47	2.99	33.09	0.08	15.60	2.95	8,346.51
Percent Reduction	28.45	50.08	50.00	52.94	49.98	50.00	50.00

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)	10.44	5.99	66.18	0.17	31.19	5.90	16,693.02

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.