

Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\Alan Sako\112.24 Vista Canyon\AQ\Emissions\Operational Overlay\Urbemis Operational Overlay Vista Canyon.urb924

Project Name: Vista Canyon Operational Overlay Emissions

Project Location: South Coast AQMD

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>
TOTALS (lbs/day, unmitigated)	80.77	23.44	25.75	0.00	0.08	0.08
TOTALS (lbs/day, mitigated)	80.64	21.68	24.78	0.00	0.08	0.08
Percent Reduction	0.16	7.51	3.77	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	105.56	126.44	1,156.34	1.72	279.15	54.43
TOTALS (lbs/day, mitigated)	94.46	111.44	1,019.08	1.52	246.03	47.97
Percent Reduction	10.52	11.86	11.87	11.63	11.86	11.87

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>
TOTALS (lbs/day, unmitigated)	186.33	149.88	1,182.09	1.72	279.23	54.51
TOTALS (lbs/day, mitigated)	175.10	133.12	1,043.86	1.52	246.11	48.05
Percent Reduction	6.03	11.18	11.69	11.63	11.86	11.85

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>
Natural Gas	1.77	23.27	12.19	0.00	0.04	0.04
Hearth - No Summer Emissions						
Landscape	1.51	0.17	13.56	0.00	0.04	0.04
Consumer Products	71.33					
Architectural Coatings	6.16					
TOTALS (lbs/day, unmitigated)	80.77	23.44	25.75	0.00	0.08	0.08

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
Natural Gas	1.64	21.51	11.22	0.00	0.04	0.04
Hearth - No Summer Emissions						
Landscape	1.51	0.17	13.56	0.00	0.04	0.04
Consumer Products	71.33					
Architectural Coatings	6.16					
TOTALS (lbs/day, mitigated)	80.64	21.68	24.78	0.00	0.08	0.08

Area Source Changes to Defaults

Percent residential using natural gas changed from 78% to 100%

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

The number of persons per household for consumer product use changed from 3 persons to 3.09 persons

Operational Unmitigated Detail Report:

OPERATIONAL 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>PM25</u>
Single family housing	4.39	5.34	50.10	0.07	11.99	2.34
Apartments mid rise	19.43	22.39	209.96	0.31	50.25	9.80
Condo/townhouse general	20.28	22.80	213.85	0.32	51.18	9.98
Hotel	6.90	7.49	66.80	0.10	16.20	3.16
Regnl shop. center	27.78	34.28	304.56	0.45	73.21	14.28
General office building	20.76	25.36	233.09	0.35	56.57	11.03
Multiplex Movie Theater	6.02	8.78	77.98	0.12	19.75	3.84
TOTALS (lbs/day, unmitigated)	105.56	126.44	1,156.34	1.72	279.15	54.43

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>
Single family housing	3.93	4.71	44.15	0.07	10.57	2.06
Apartments mid rise	17.52	19.73	185.04	0.27	44.29	8.64
Condo/townhouse general	18.34	20.10	188.47	0.28	45.11	8.80
Hotel	6.22	6.60	58.87	0.09	14.28	2.78
Regnl shop. center	24.57	30.21	268.41	0.39	64.52	12.58
General office building	18.57	22.35	205.42	0.31	49.86	9.72
Multiplex Movie Theater	5.31	7.74	68.72	0.11	17.40	3.39
TOTALS (lbs/day, mitigated)	94.46	111.44	1,019.08	1.52	246.03	47.97

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 14.64 Nonresidential Trip % Reduction: 8.17

Analysis Year: 2015 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

<u>Summary of Land Uses</u>						
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	8.50	8.17	dwelling units	96.00	784.25	6,936.74
Apartments mid rise	13.10	5.68	dwelling units	579.00	3,286.81	29,071.82
Condo/townhouse general	14.96	4.96	dwelling units	675.00	3,347.76	29,610.92
Hotel		7.50	rooms	200.00	1,500.43	9,375.84
Regnl shop. center		56.44	1000 sq ft	131.00	7,393.13	42,357.16
General office building		10.15	1000 sq ft	396.00	4,018.11	32,735.91
Multiplex Movie Theater		137.74	unknown	10.00	1,377.39	11,432.34
					21,707.88	161,520.73

Vehicle Fleet Mix					
Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.9		0.2	99.6	0.2
Light Truck < 3750 lbs	7.3		1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.2		0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.8		0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7		0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5		0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9		0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.6		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	2.9		48.3	51.7	0.0
School Bus	0.1		0.0	0.0	100.0
Motor Home	0.9		0.0	88.9	11.1

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Multiplex Movie Theater				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

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Project Location: South Coast AQMD

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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>
TOTALS (lbs/day, unmitigated)	79.71	31.00	15.48	0.05	0.66	0.66
TOTALS (lbs/day, mitigated)	79.58	29.24	14.51	0.05	0.66	0.66
Percent Reduction	0.16	5.68	6.27	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	113.86	151.83	1,108.19	1.42	279.15	54.43
TOTALS (lbs/day, mitigated)	101.04	133.81	976.65	1.25	246.03	47.97
Percent Reduction	11.26	11.87	11.87	11.97	11.86	11.87

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>
TOTALS (lbs/day, unmitigated)	193.57	182.83	1,123.67	1.47	279.81	55.09
TOTALS (lbs/day, mitigated)	180.62	163.05	991.16	1.30	246.69	48.63
Percent Reduction	6.69	10.82	11.79	11.56	11.84	11.73

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>
Natural Gas	1.77	23.27	12.19	0.00	0.04	0.04
Hearth	0.45	7.73	3.29	0.05	0.62	0.62
Landscaping - No Winter Emissions						
Consumer Products	71.33					
Architectural Coatings	6.16					
TOTALS (lbs/day, unmitigated)	79.71	31.00	15.48	0.05	0.66	0.66

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
Natural Gas	1.64	21.51	11.22	0.00	0.04	0.04
Hearth	0.45	7.73	3.29	0.05	0.62	0.62
Landscaping - No Winter Emissions						
Consumer Products	71.33					
Architectural Coatings	6.16					
TOTALS (lbs/day, mitigated)	79.58	29.24	14.51	0.05	0.66	0.66

Area Source Changes to Defaults

Percent residential using natural gas changed from 78% to 100%

Percentage of residences with wood stoves changed from 10% to 0%

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Percentage of residences with natural gas fireplaces changed from 85% to 100%

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OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>
Single family housing	4.66	6.42	47.54	0.06	11.99	2.34
Apartments mid rise	20.00	26.92	199.25	0.26	50.25	9.80
Condo/townhouse general	20.61	27.41	202.95	0.26	51.18	9.98
Hotel	7.24	8.98	64.82	0.08	16.20	3.16
Regnl shop. center	32.04	41.07	297.46	0.37	73.21	14.28
General office building	22.45	30.48	221.72	0.29	56.57	11.03
Multiplex Movie Theater	6.86	10.55	74.45	0.10	19.75	3.84
TOTALS (lbs/day, unmitigated)	113.86	151.83	1,108.19	1.42	279.15	54.43

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Single family housing	4.13	5.66	41.90	0.05	10.57	2.06
Apartments mid rise	17.82	23.72	175.60	0.23	44.29	8.64
Condo/townhouse general	18.39	24.16	178.86	0.23	45.11	8.80
Hotel	6.45	7.91	57.13	0.07	14.28	2.78
Regnl shop. center	28.28	36.20	262.15	0.33	64.52	12.58
General office building	19.92	26.86	195.40	0.25	49.86	9.72
Multiplex Movie Theater	6.05	9.30	65.61	0.09	17.40	3.39
TOTALS (lbs/day, mitigated)	101.04	133.81	976.65	1.25	246.03	47.97

Operational Settings:

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Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	48.3	51.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

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