
**Impact Sciences, Inc., "Operational Emissions: URBEMIS2007 Area and
Operational Emissions, Newhall Ranch Alternative 7" (March 10, 2008)**

3/10/2008 08:55:46 AM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\Glu\aqNewhall\August 2007 Revision to Newhall\Operational Emissions\URBEMIS2007 Files and Printouts\Newhall Ranch

Project Name: Newhall Ranch Alternative 7

Project Location: Los Angeles County

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)	998.37	247.16	456.77	0.02	1.37	1.36

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)	576.88	484.52	5,510.47	16.49	2,689.66	521.47

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)	1,575.25	731.68	5,967.24	16.51	2,691.03	522.83

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	18.63	243.31	117.88	0.00	0.46	0.46
Hearth - No Summer Emissions						
Landscape	59.84	3.85	338.89	0.02	0.91	0.90
Consumer Products	844.96					
Architectural Coatings	74.94					
TOTALS (lbs/day, unmitigated)	998.37	247.16	456.77	0.02	1.37	1.36

Area Source Changes to Defaults

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%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25
Single family housing	177.17	157.46	1,813.60	5.42	882.57	171.15
Condo/townhouse general	187.10	160.64	1,850.24	5.53	900.40	174.60
Elementary school	30.94	11.37	126.91	0.38	61.54	11.93
High school	14.63	6.77	74.67	0.23	37.41	7.24
City park	2.48	1.94	21.30	0.06	10.65	2.06
Free-standing discount superstore	93.92	84.56	923.35	2.76	453.24	87.84
Strip mall	9.46	7.73	84.25	0.25	40.35	7.83
Office park	27.33	23.97	273.34	0.82	134.63	26.09
Developed Park	0.46	0.25	2.69	0.01	1.35	0.26
Commercial Office	33.39	29.83	340.12	1.03	167.52	32.47
TOTALS (lbs/day, unmitigated)	576.88	484.52	5,510.47	16.49	2,689.66	521.47

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 19.77 Nonresidential Trip % Reduction: 26.74

Analysis Year: 2030 Temperature (F): 80 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	2,426.67	7.94	dwelling units	7,280.00	57,823.42	511,448.25
Condo/townhouse general	574.44	6.42	dwelling units	9,191.00	58,991.58	521,780.56
Elementary school		1.06	students	5,250.00	5,576.71	35,659.28
High school		1.31	students	2,230.00	2,924.21	21,687.80
City park		5.83	acres	152.80	891.02	6,174.72
Free-standing discount superstore		39.60	1000 sq ft	1,136.39	45,004.34	262,687.47
Strip mall		27.15	1000 sq ft	174.00	4,723.95	23,377.00
Office park		7.47	1000 sq ft	1,169.88	8,741.63	78,031.08
Developed Park		1.90	acres	59.11	112.59	780.22
Commercial Office		8.47	1000 sq ft	1,284.45	10,877.42	97,095.96
					195,666.87	1,558,722.34

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	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	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	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	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commute	Commercial	
	Home-Work	Home-Shop	Home-Other		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)						
Elementary school				20.0	10.0	70.0
High school				10.0	5.0	85.0
City park				5.0	2.5	92.5
Free-standing discount superstore				2.0	1.0	97.0
Strip mall				2.0	1.0	97.0
Office park				48.0	24.0	28.0
Developed Park				5.0	2.5	92.5
Commercial Office				48.0	24.0	28.0

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Project Location: Los Angeles County

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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)	945.04	354.51	165.20	0.71	9.45	9.36

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)	604.83	582.07	5,181.32	13.67	2,689.66	521.47

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)	1,549.87	936.58	5,346.52	14.38	2,699.11	530.83

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	18.63	243.31	117.88	0.00	0.46	0.46
Hearth	6.51	111.20	47.32	0.71	8.99	8.90
Landscaping - No Winter Emissions						
Consumer Products	844.96					
Architectural Coatings	74.94					
TOTALS (lbs/day, unmitigated)	945.04	354.51	165.20	0.71	9.45	9.36

Area Source Changes to Defaults

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%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25
Single family housing	187.72	189.30	1,698.01	4.50	882.57	171.15
Condo/townhouse general	194.76	193.12	1,732.31	4.59	900.40	174.60
Elementary school	23.85	13.63	120.53	0.31	61.54	11.93
High school	11.79	8.13	70.46	0.19	37.41	7.24
City park	2.54	2.33	20.18	0.05	10.65	2.06
Free-standing discount superstore	108.18	101.34	883.39	2.29	453.24	87.84
Strip mall	10.86	9.25	81.43	0.20	40.35	7.83
Office park	28.99	28.82	255.07	0.68	134.63	26.09
Developed Park	0.39	0.29	2.55	0.01	1.35	0.26
Commercial Office	35.75	35.86	317.39	0.85	167.52	32.47
TOTALS (lbs/day, unmitigated)	604.83	582.07	5,181.32	13.67	2,689.66	521.47

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

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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	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	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	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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