

APPENDIX B – AIR QUALITY URBEMIS MODEL DATA

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\Owner\Desktop\Rocklin\Rocklin General Plan Update - 2008 Conditions.urb924

Project Name: Rocklin General Plan Update - 2008 Conditions

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 (tons/year, unmitigated)	431.07	67.74	1,004.77	2.82	146.73	141.22	87,498.62

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)	706.40	1,026.94	8,181.96	5.43	978.72	191.59	550,862.48

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)	1,137.47	1,094.68	9,186.73	8.25	1,125.45	332.81	638,361.10

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, 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	3.83	50.05	24.27	0.00	0.10	0.09	63,344.74
Hearth	173.49	17.06	912.37	2.82	146.45	140.95	24,052.67
Landscape	12.12	0.63	68.13	0.00	0.18	0.18	101.21
Consumer Products	187.82						
Architectural Coatings	53.81						
TOTALS (tons/year, unmitigated)	431.07	67.74	1,004.77	2.82	146.73	141.22	87,498.62

Area Source Changes to Defaults

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	283.53	402.50	3,256.77	2.15	384.36	75.29	217,299.99
Apartments low rise	66.80	92.56	748.91	0.49	88.39	17.31	49,969.15
Condo/townhouse general	13.95	19.33	156.39	0.10	18.46	3.62	10,434.39
Mobile home park	4.63	6.21	50.26	0.03	5.93	1.16	3,353.79
Free-standing discount store	69.72	105.78	826.94	0.56	100.56	19.67	56,291.40
Regnl shop. center	53.66	81.08	633.86	0.43	77.08	15.08	43,148.03
Home improvement superstore	37.53	56.27	439.89	0.30	53.49	10.47	29,944.37
Supermarket	126.48	193.06	1,509.21	1.01	183.53	35.90	102,735.31
General office building	10.94	15.77	125.66	0.08	15.04	2.94	8,465.89
Office park	11.70	16.90	135.59	0.09	16.14	3.16	9,103.07
Warehouse	5.85	7.81	61.03	0.04	7.42	1.45	4,154.12
Industrial park	16.64	23.20	185.53	0.12	22.14	4.33	12,477.26
Manufacturing	4.97	6.47	51.92	0.03	6.18	1.21	3,485.71
TOTALS (tons/year, unmitigated)	706.40	1,026.94	8,181.96	5.43	978.72	191.59	550,862.48

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Season: Annual

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	4,955.00	9.57	dwelling units	14,865.00	142,258.05	1,216,263.63
Apartments low rise	296.31	6.90	dwelling units	4,741.00	32,712.90	279,685.49
Condo/townhouse general	61.88	6.90	dwelling units	990.00	6,831.00	58,403.00
Mobile home park	73.33	4.99	dwelling units	440.00	2,195.60	18,771.72
Free-standing discount store		56.02	1000 sq ft	768.65	43,059.77	318,340.91
Regnl shop. center		42.94	1000 sq ft	768.65	33,005.83	244,012.11
Home improvement superstore		29.80	1000 sq ft	768.65	22,905.77	169,342.36
Supermarket		102.24	1000 sq ft	768.65	78,586.78	580,992.03
General office building		11.01	1000 sq ft	533.45	5,873.28	47,588.29
Office park		11.42	1000 sq ft	533.45	6,092.00	51,063.14
Warehouse		4.96	1000 sq ft	640.66	3,177.67	23,492.54
Industrial park		6.96	1000 sq ft	1,221.32	8,500.39	70,062.31
Manufacturing		3.82	1000 sq ft	610.66	2,332.72	19,552.87
					387,531.76	3,097,570.40

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	2.0	97.5	0.5
Light Truck < 3750 lbs	14.2	4.2	85.9	9.9
Light Truck 3751-5750 lbs	22.3	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	69.2	30.8

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
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
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	76.4	23.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	7.7	76.9	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)

Free-standing discount store	2.0	1.0	97.0
Regnl shop. center	2.0	1.0	97.0
Home improvement superstore	2.0	1.0	97.0
Supermarket	2.0	1.0	97.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0
Industrial park				41.5	20.8	37.8
Manufacturing				48.0	24.0	28.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Owner\Desktop\Rocklin\Rocklin General Plan Update - 2008 Conditions.urb924

Project Name: Rocklin General Plan Update - 2008 Conditions

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)	1,479.73	281.21	889.96	0.03	2.55	2.52	348,219.01

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)	3,629.09	4,912.76	42,730.73	30.94	5,362.83	1,049.91	3,149,869.71

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)	5,108.82	5,193.97	43,620.69	30.97	5,365.38	1,052.43	3,498,088.72

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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	21.00	274.25	132.97	0.00	0.52	0.51	347,094.46
Hearth - No Summer Emissions							
Landscape	134.70	6.96	756.99	0.03	2.03	2.01	1,124.55
Consumer Products	1,029.15						
Architectural Coatings	294.88						
TOTALS (lbs/day, unmitigated)	1,479.73	281.21	889.96	0.03	2.55	2.52	348,219.01

Area Source Changes to Defaults

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	1,476.84	1,924.74	17,075.21	12.21	2,106.08	412.57	1,242,296.95
Apartments low rise	352.79	442.60	3,926.52	2.81	484.30	94.87	285,671.97
Condo/townhouse general	73.67	92.42	819.92	0.59	101.13	19.81	59,653.08
Mobile home park	24.89	29.71	263.54	0.19	32.51	6.37	19,173.52
Free-standing discount store	348.55	506.30	4,295.94	3.16	551.03	107.80	321,954.78
Regnl shop. center	268.95	388.09	3,292.89	2.42	422.37	82.63	246,782.18
Home improvement superstore	189.00	269.33	2,285.24	1.68	293.12	57.34	171,264.76
Supermarket	629.80	924.03	7,840.36	5.76	1,005.67	196.74	587,587.56
General office building	56.82	75.42	657.72	0.48	82.39	16.13	48,407.87
Office park	60.78	80.83	711.53	0.51	88.41	17.31	52,046.71
Warehouse	31.54	37.36	317.03	0.23	40.66	7.96	23,759.23
Industrial park	88.14	110.98	972.37	0.70	121.31	23.75	71,341.61
Manufacturing	27.32	30.95	272.46	0.20	33.85	6.63	19,929.49
TOTALS (lbs/day, unmitigated)	3,629.09	4,912.76	42,730.73	30.94	5,362.83	1,049.91	3,149,869.71

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 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	4,955.00	9.57	dwelling units	14,865.00	142,258.05	1,216,263.63
Apartments low rise	296.31	6.90	dwelling units	4,741.00	32,712.90	279,685.49
Condo/townhouse general	61.88	6.90	dwelling units	990.00	6,831.00	58,403.00
Mobile home park	73.33	4.99	dwelling units	440.00	2,195.60	18,771.72
Free-standing discount store		56.02	1000 sq ft	768.65	43,059.77	318,340.91
Regnl shop. center		42.94	1000 sq ft	768.65	33,005.83	244,012.11
Home improvement superstore		29.80	1000 sq ft	768.65	22,905.77	169,342.36
Supermarket		102.24	1000 sq ft	768.65	78,586.78	580,992.03
General office building		11.01	1000 sq ft	533.45	5,873.28	47,588.29
Office park		11.42	1000 sq ft	533.45	6,092.00	51,063.14
Warehouse		4.96	1000 sq ft	640.66	3,177.67	23,492.54
Industrial park		6.96	1000 sq ft	1,221.32	8,500.39	70,062.31
Manufacturing		3.82	1000 sq ft	610.66	2,332.72	19,552.87
					387,531.76	3,097,570.40

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	2.0	97.5	0.5
Light Truck < 3750 lbs	14.2	4.2	85.9	9.9
Light Truck 3751-5750 lbs	22.3	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	69.2	30.8

<u>Vehicle Fleet Mix</u>				
Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
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
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	76.4	23.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	7.7	76.9	15.4

	<u>Travel Conditions</u>					
	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)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0
Supermarket				2.0	1.0	97.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0
Industrial park				41.5	20.8	37.8
Manufacturing				48.0	24.0	28.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Owner\Desktop\Rocklin\Rocklin General Plan Update - 2008 Conditions.urb924

Project Name: Rocklin General Plan Update - 2008 Conditions

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)	5,576.51	776.41	22,422.68	69.41	3,579.36	3,445.31	1,043,765.56

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)	4,354.04	7,055.95	49,036.50	27.56	5,362.83	1,049.91	2,755,534.23

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)	9,930.55	7,832.36	71,459.18	96.97	8,942.19	4,495.22	3,799,299.79

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	21.00	274.25	132.97	0.00	0.52	0.51	347,094.46
Hearth	4,231.48	502.16	22,289.71	69.41	3,578.84	3,444.80	696,671.10
Landscaping - No Winter Emissions							
Consumer Products	1,029.15						
Architectural Coatings	294.88						
TOTALS (lbs/day, unmitigated)	5,576.51	776.41	22,422.68	69.41	3,579.36	3,445.31	1,043,765.56

Area Source Changes to Defaults

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	1,707.03	2,767.00	19,385.60	10.89	2,106.08	412.57	1,087,460.79
Apartments low rise	392.54	636.28	4,457.81	2.50	484.30	94.87	250,066.68
Condo/townhouse general	81.97	132.87	930.87	0.52	101.13	19.81	52,218.10
Mobile home park	26.35	42.71	299.20	0.17	32.51	6.37	16,783.79
Free-standing discount store	449.03	726.31	5,001.59	2.81	551.03	107.80	281,428.46
Regnl. shop. center	344.19	556.72	3,833.78	2.16	422.37	82.63	215,718.27
Home improvement superstore	238.86	386.36	2,660.61	1.50	293.12	57.34	149,706.67
Supermarket	819.51	1,325.56	9,128.22	5.13	1,005.67	196.74	513,624.51
General office building	66.25	108.36	750.17	0.42	82.39	16.13	42,349.65
Office park	70.76	116.20	805.88	0.46	88.41	17.31	45,546.13
Warehouse	33.14	53.60	369.10	0.21	40.66	7.96	20,768.52
Industrial park	97.31	159.49	1,105.09	0.62	121.31	23.75	62,422.34
Manufacturing	27.10	44.49	308.58	0.17	33.85	6.63	17,440.32
TOTALS (lbs/day, unmitigated)	4,354.04	7,055.95	49,036.50	27.56	5,362.83	1,049.91	2,755,534.23

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 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
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Mobile home park	73.33	4.99	dwelling units	440.00	2,195.60	18,771.72
Free-standing discount store		56.02	1000 sq ft	768.65	43,059.77	318,340.91
Regnl shop. center		42.94	1000 sq ft	768.65	33,005.83	244,012.11
Home improvement superstore		29.80	1000 sq ft	768.65	22,905.77	169,342.36
Supermarket		102.24	1000 sq ft	768.65	78,586.78	580,992.03
General office building		11.01	1000 sq ft	533.45	5,873.28	47,588.29
Office park		11.42	1000 sq ft	533.45	6,092.00	51,063.14
Warehouse		4.96	1000 sq ft	640.66	3,177.67	23,492.54
Industrial park		6.96	1000 sq ft	1,221.32	8,500.39	70,062.31
Manufacturing		3.82	1000 sq ft	610.66	2,332.72	19,552.87
					387,531.76	3,097,570.40

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	2.0	97.5	0.5
Light Truck < 3750 lbs	14.2	4.2	85.9	9.9
Light Truck 3751-5750 lbs	22.3	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	69.2	30.8

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
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
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	76.4	23.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	7.7	76.9	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)

Free-standing discount store	2.0	1.0	97.0
Regnl shop. center	2.0	1.0	97.0
Home improvement superstore	2.0	1.0	97.0
Supermarket	2.0	1.0	97.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0
Industrial park				41.5	20.8	37.8
Manufacturing				48.0	24.0	28.0

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\Owner\Desktop\Rocklin\Rocklin General Plan Update - 2030 Conditions.urb924

Project Name: Rocklin General Plan Update - 2030 Conditions

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 (tons/year, unmitigated)	440.00	108.55	364.12	0.63	35.78	34.45	136,833.24

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)	435.03	375.42	4,205.85	9.09	1,642.26	312.06	925,760.66

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)	875.03	483.97	4,569.97	9.72	1,678.04	346.51	1,062,593.90

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, 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	7.94	103.66	49.95	0.00	0.20	0.19	131,245.42
Hearth	75.94	3.90	226.91	0.63	35.35	34.03	5,447.35
Landscape	15.60	0.99	87.26	0.00	0.23	0.23	140.47
Consumer Products	261.45						
Architectural Coatings	79.07						
TOTALS (tons/year, unmitigated)	440.00	108.55	364.12	0.63	35.78	34.45	136,833.24

Area Source Changes to Defaults

Percent residential using natural gas changed from 60% to 90%

Percentage of residences with wood stoves changed from 35% to 5%

Percentage of residences with wood fireplaces changed from 10% to 5%

Percentage of residences with natural gas fireplaces changed from 55% to 45%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	144.89	120.76	1,381.61	2.95	530.60	100.94	300,733.02
Apartments low rise	34.33	27.77	317.72	0.68	122.02	23.21	69,157.42
Condo/townhouse general	7.17	5.80	66.34	0.14	25.48	4.85	14,439.23
Mobile home park	2.40	1.86	21.31	0.05	8.18	1.56	4,637.65
Free-standing discount store	50.92	45.96	505.62	1.10	200.29	38.02	112,371.22
Regnl shop. center	39.23	35.23	387.56	0.84	153.52	29.14	86,133.88
Home improvement superstore	27.49	24.45	268.97	0.59	106.54	20.22	59,776.19
Supermarket	92.24	83.88	922.79	2.01	365.53	69.39	205,084.50
General office building	8.58	7.26	81.64	0.18	31.80	6.04	17,950.28
Office park	9.17	7.78	88.11	0.19	34.13	6.49	19,302.95
Warehouse	6.37	4.91	53.96	0.12	21.38	4.06	11,992.79
Industrial park	9.39	7.63	86.12	0.19	33.45	6.36	18,901.00
Manufacturing	2.85	2.13	24.10	0.05	9.34	1.78	5,280.53
TOTALS (tons/year, unmitigated)	435.03	375.42	4,205.85	9.09	1,642.26	312.06	925,760.66

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

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	6,897.67	9.57	dwelling units	20,693.00	198,032.00	1,693,114.25
Apartments low rise	412.50	6.90	dwelling units	6,600.00	45,540.00	389,353.35
Condo/townhouse general	86.12	6.90	dwelling units	1,378.00	9,508.20	81,292.26
Mobile home park	102.00	4.99	dwelling units	612.00	3,053.88	26,109.76
Free-standing discount store		56.02	1000 sq ft	1,544.01	86,495.44	639,460.79
Regnl shop. center		42.94	1000 sq ft	1,544.01	66,299.79	490,154.32
Home improvement superstore		29.80	1000 sq ft	1,544.01	46,011.50	340,162.99
Supermarket		102.24	1000 sq ft	1,544.01	157,859.58	1,167,055.86
General office building		11.01	1000 sq ft	1,137.87	12,527.95	101,507.71
Office park		11.42	1000 sq ft	1,137.87	12,994.48	108,919.69
Warehouse		4.96	1000 sq ft	1,861.13	9,231.20	68,246.30
Industrial park		6.96	1000 sq ft	1,861.13	12,953.46	106,765.70
Manufacturing		3.82	1000 sq ft	930.57	3,554.78	29,796.14
					664,062.26	5,241,939.12

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	40.2	0.0	100.0	0.0
Light Truck < 3750 lbs	14.0	0.0	99.3	0.7
Light Truck 3751-5750 lbs	22.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	80.8	19.2

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Life-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
Heavy-Heavy Truck 33,001-60,000 lbs	1.0	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	5.4	33.3	66.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	92.3	7.7

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)

Free-standing discount store	2.0	1.0	97.0
Regnl shop. center	2.0	1.0	97.0
Home improvement superstore	2.0	1.0	97.0
Supermarket	2.0	1.0	97.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0
Industrial park				41.5	20.8	37.8
Manufacturing				48.0	24.0	28.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Owner\Desktop\Rocklin\Rocklin General Plan Update - 2030 Conditions.urb924

Project Name: Rocklin General Plan Update - 2030 Conditions

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)	2,082.78	578.93	1,243.33	0.05	3.66	3.63	720,713.74

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)	2,303.28	1,768.95	22,390.44	51.74	8,998.73	1,709.87	5,307,508.44

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)	4,386.06	2,347.88	23,633.77	51.79	9,002.39	1,713.50	6,028,222.18

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	43.51	567.97	273.73	0.01	1.08	1.07	719,152.96
Hearth - No Summer Emissions							
Landscape	173.36	10.96	969.60	0.04	2.58	2.56	1,560.78
Consumer Products	1,432.62						
Architectural Coatings	433.29						
TOTALS (lbs/day, unmitigated)	2,082.78	578.93	1,243.33	0.05	3.66	3.63	720,713.74

Area Source Changes to Defaults

Percent residential using natural gas changed from 60% to 90%

Percentage of residences with wood stoves changed from 35% to 5%

Percentage of residences with wood fireplaces changed from 10% to 5%

Percentage of residences with natural gas fireplaces changed from 55% to 45%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	779.57	568.67	7,387.37	16.82	2,907.41	553.09	1,723,706.38
Apartments low rise	187.58	130.77	1,698.82	3.87	668.60	127.19	396,388.40
Condo/townhouse general	39.17	27.30	354.69	0.81	139.59	26.56	82,761.09
Mobile home park	13.34	8.77	113.92	0.26	44.84	8.53	26,581.52
Free-standing discount store	263.29	216.69	2,680.38	6.27	1,097.46	208.32	644,381.60
Regnl shop. center	203.44	166.10	2,054.54	4.81	841.21	159.68	493,926.18
Home improvement superstore	143.32	115.27	1,425.84	3.34	583.80	110.82	342,780.63
Supermarket	474.77	395.47	4,891.86	11.45	2,002.93	380.19	1,176,036.64
General office building	46.09	34.20	435.90	1.00	174.27	33.12	102,905.43
Office park	49.18	36.62	471.62	1.08	187.02	35.56	110,649.37
Warehouse	35.76	23.13	286.06	0.67	117.13	22.23	68,771.47
Industrial park	51.52	35.94	460.42	1.06	183.31	34.85	108,350.41
Manufacturing	16.25	10.02	129.02	0.30	51.16	9.73	30,269.32
TOTALS (lbs/day, unmitigated)	2,303.28	1,768.95	22,390.44	51.74	8,998.73	1,709.87	5,307,508.44

Operational Settings:

Does not include 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

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	6,897.67	9.57	dwelling units	20,693.00	198,032.00	1,693,114.25
Apartments low rise	412.50	6.90	dwelling units	6,600.00	45,540.00	389,353.35
Condo/townhouse general	86.12	6.90	dwelling units	1,378.00	9,508.20	81,292.26
Mobile home park	102.00	4.99	dwelling units	612.00	3,053.88	26,109.76
Free-standing discount store		56.02	1000 sq ft	1,544.01	86,495.44	639,460.79
Regnl shop. center		42.94	1000 sq ft	1,544.01	66,299.79	490,154.32
Home improvement superstore		29.80	1000 sq ft	1,544.01	46,011.50	340,162.99
Supermarket		102.24	1000 sq ft	1,544.01	157,859.58	1,167,055.86
General office building		11.01	1000 sq ft	1,137.87	12,527.95	101,507.71
Office park		11.42	1000 sq ft	1,137.87	12,994.48	108,919.69
Warehouse		4.96	1000 sq ft	1,861.13	9,231.20	68,246.30
Industrial park		6.96	1000 sq ft	1,861.13	12,953.46	106,765.70
Manufacturing		3.82	1000 sq ft	930.57	3,554.78	29,796.14
					664,062.26	5,241,939.12

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	40.2	0.0	100.0	0.0
Light Truck < 3750 lbs	14.0	0.0	99.3	0.7
Light Truck 3751-5750 lbs	22.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	80.8	19.2

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
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
Heavy-Heavy Truck 33,001-60,000 lbs	1.0	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	5.4	33.3	66.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	92.3	7.7

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)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0
Supermarket				2.0	1.0	97.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0
Industrial park				41.5	20.8	37.8
Manufacturing				48.0	24.0	28.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Owner\Desktop\Rocklin\Rocklin General Plan Update - 2030 Conditions.urb924

Project Name: Rocklin General Plan Update - 2030 Conditions

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)	3,760.76	761.26	5,849.86	16.09	871.27	838.82	977,322.16

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)	2,544.63	2,633.26	24,356.40	45.87	8,998.73	1,709.87	4,602,966.64

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)	6,305.39	3,394.52	30,206.26	61.96	9,870.00	2,548.69	5,580,288.80

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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	43.51	567.97	273.73	0.01	1.08	1.07	719,152.96
Hearth	1,851.34	193.29	5,576.13	16.08	870.19	837.75	258,169.20
Landscaping - No Winter Emissions							
Consumer Products	1,432.62						
Architectural Coatings	433.29						
TOTALS (lbs/day, unmitigated)	3,760.76	761.26	5,849.86	16.09	871.27	838.82	977,322.16

Area Source Changes to Defaults

Percent residential using natural gas changed from 60% to 90%

Percentage of residences with wood stoves changed from 35% to 5%

Percentage of residences with wood fireplaces changed from 10% to 5%

Percentage of residences with natural gas fireplaces changed from 55% to 45%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	822.66	847.69	7,936.69	14.92	2,907.41	553.09	1,496,143.69
Apartments low rise	189.18	194.94	1,825.14	3.43	668.60	127.19	344,057.44
Condo/townhouse general	39.50	40.70	381.07	0.72	139.59	26.56	71,835.02
Mobile home park	12.69	13.07	122.39	0.23	44.84	8.53	23,072.25
Free-standing discount store	310.53	322.17	2,950.83	5.56	1,097.46	208.32	558,434.99
Regnl shop. center	238.03	246.95	2,261.84	4.26	841.21	159.68	428,047.09
Home improvement superstore	165.19	171.38	1,569.70	2.96	583.80	110.82	297,061.09
Supermarket	566.74	587.98	5,385.45	10.15	2,002.93	380.19	1,019,178.73
General office building	48.92	50.94	470.17	0.89	174.27	33.12	89,262.31
Office park	52.35	54.59	505.15	0.96	187.02	35.56	96,010.04
Warehouse	33.14	34.38	314.93	0.59	117.13	22.23	59,598.84
Industrial park	51.38	53.54	494.85	0.94	183.31	34.85	94,000.58
Manufacturing	14.32	14.93	138.19	0.26	51.16	9.73	26,264.57
TOTALS (lbs/day, unmitigated)	2,544.63	2,633.26	24,356.40	45.87	8,998.73	1,709.87	4,602,966.64

Operational Settings:

Does not include 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
Single family housing	6,897.67	9.57	dwelling units	20,693.00	198,032.00	1,693,114.25
Apartments low rise	412.50	6.90	dwelling units	6,600.00	45,540.00	389,353.35
Condo/townhouse general	86.12	6.90	dwelling units	1,378.00	9,508.20	81,292.26
Mobile home park	102.00	4.99	dwelling units	612.00	3,053.88	26,109.76
Free-standing discount store		56.02	1000 sq ft	1,544.01	86,495.44	639,460.79
Regnl shop. center		42.94	1000 sq ft	1,544.01	66,299.79	490,154.32
Home improvement superstore		29.80	1000 sq ft	1,544.01	46,011.50	340,162.99
Supermarket		102.24	1000 sq ft	1,544.01	157,859.58	1,167,055.86
General office building		11.01	1000 sq ft	1,137.87	12,527.95	101,507.71
Office park		11.42	1000 sq ft	1,137.87	12,994.48	108,919.69
Warehouse		4.96	1000 sq ft	1,861.13	9,231.20	68,246.30
Industrial park		6.96	1000 sq ft	1,861.13	12,953.46	106,765.70
Manufacturing		3.82	1000 sq ft	930.57	3,554.78	29,796.14
					664,062.26	5,241,939.12

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	40.2	0.0	100.0	0.0
Light Truck < 3750 lbs	14.0	0.0	99.3	0.7
Light Truck 3751-5750 lbs	22.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	80.8	19.2

<u>Vehicle Fleet Mix</u>				
Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
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
Heavy-Heavy Truck 33,001-60,000 lbs	1.0	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	5.4	33.3	66.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	92.3	7.7

	<u>Travel Conditions</u>					
	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)

Free-standing discount store	2.0	1.0	97.0
Regnl shop. center	2.0	1.0	97.0
Home improvement superstore	2.0	1.0	97.0
Supermarket	2.0	1.0	97.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0
Industrial park				41.5	20.8	37.8
Manufacturing				48.0	24.0	28.0