

APPENDIX K
AIR QUALITY CALCULATION WORKSHEETS

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Yucaipa SP.urb
Project Name: Yucaipa SP
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	132.00	28.39	30.36	0.05	0.09

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	168.07	154.28	1,875.59	5.11	885.52

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	300.07	182.67	1,905.95	5.15	885.60

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DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	2.11	28.20	18.38	0	0.05
Hearth - No summer emissions					
Landscaping	1.58	0.19	11.97	0.05	0.03
Consumer Prdcts	75.68	-	-	-	-
Architectural Coatings	52.62	-	-	-	-
TOTALS (lbs/day, unmitigated)	132.00	28.39	30.36	0.05	0.09

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	4.85	3.75	48.32	0.13	21.95
Apartments low rise	6.68	4.76	61.24	0.17	27.82
Condo/townhouse general	15.42	10.98	141.36	0.39	64.22
Elementary school	3.03	0.96	11.82	0.03	5.59
City park	3.84	1.30	15.75	0.04	7.48
Regnl shop. center	65.41	63.54	763.22	2.07	362.71
Supermarket	52.20	52.95	636.03	1.73	302.26
Office park	5.16	4.50	57.34	0.16	26.91
Government office building	11.47	11.54	140.50	0.38	66.58
TOTAL EMISSIONS (lbs/day)	168.07	154.28	1,875.59	5.11	885.52

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	75.67	9.57 trips/dwelling unit	227.00	2,172.39
Apartments low rise	24.94	6.90 trips/dwelling unit	399.00	2,753.10
Condo/townhouse general	57.56	6.90 trips/dwelling unit	921.00	6,354.90
Elementary school		1.29 trips/students	444.00	572.76
City park		1.59 trips/acres	542.70	862.89
Regnl shop. center		42.94 trips/1000 sq. ft.	1,000.00	42,940.00
Supermarket		102.24 trips/1000 sq. ft.	350.00	35,784.00
Office park		11.42 trips/1000 sq. ft.	200.00	2,284.00
Government office building		68.93 trips/1000 sq. ft.	107.00	7,375.51
Sum of Total Trips			101,099.55	
Total Vehicle Miles Traveled			586,593.87	

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Elementary school	20.0	10.0	70.0
City park	5.0	2.5	92.5
Regnl shop. center	2.0	1.0	97.0
Supermarket	2.0	1.0	97.0
Office park	48.0	24.0	28.0
Government office building	10.0	5.0	85.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2030.
The operational winter selection item changed from 3 to 2.
The operational summer selection item changed from 8 to 7.