

**APPENDIX C**  
**AIR QUALITY WORKSHEETS AND MODEL OUTPUTS**

# SAN GABRIEL FIRE DEPT, CALIFORNIA (047785)

## Period of Record Monthly Climate Summary

Period of Record : 5/ 1/1939 to 3/31/2003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	69.1	70.4	71.7	75.2	77.8	82.7	88.8	89.8	88.3	82.4	75.3	70.0	78.5
Average Min. Temperature (F)	41.4	43.4	45.6	49.0	53.2	57.0	60.7	61.2	59.2	53.6	45.9	41.6	51.0
Average Total Precipitation (in.)	3.70	3.89	3.19	1.28	0.27	0.10	0.02	0.08	0.36	0.48	1.76	2.39	17.51
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

Max. Temp.: 98.6% Min. Temp.: 98.5% Precipitation: 98.8% Snowfall: 95.6% Snow Depth: 95.6%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

---

Western Regional Climate Center, <mailto:wrcc@dri.edu>



View this page for another pollutant:

- Hourly O<sub>3</sub>
- 8-Hour O<sub>3</sub>
- PM 10
- PM 2.5
- CO
- NO<sub>2</sub>
- SO<sub>2</sub>
- H<sub>2</sub>S

**Highest 4 Daily Maximum Hourly Ozone Measurements  
and Number of Days Above the Hourly Standards  
at Azusa  
parts per million**

	2000		2001		2002	
High	May 28	0.174	Aug 26	0.189	Sep 22	0.136
2nd High	Aug 13	0.161	Jun 09	0.160	Jul 07	0.133
3rd High	Sep 17	0.156	Jul 28	0.152	Aug 10	0.129
4th High	May 21	0.154	Aug 05	0.139	Jun 05	0.127
*Days > State Standard	32		36		26	
*Days > National Standard	11		9		5	
**Year Coverage	100		100		97	

Start Over:



\* The number of days at least one measurement was greater than the level of the state hourly standard (0.09 parts per million) or the national hourly standard (0.12 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

\*\* Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



View this page for another pollutant:

- Hourly O<sub>3</sub>**
- 8-Hour O<sub>3</sub>**
- PM 10**
- PM 2.5**
- CO**
- NO<sub>x</sub>**
- SO<sub>2</sub>**
- H<sub>2</sub>S**

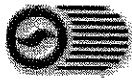
**Highest 4 Daily Maximum 8-Hour  
Ozone Averages  
and Number of Days Above the 8-Hour Standard  
at Azusa**  
parts per million

	2000		2001		2002	
High	May 28	0.142	Aug 26	0.130	Jun 16	0.102
2nd High	Aug 13	0.115	Jun 09	0.116	Aug 11	0.100
3rd High	May 27	0.111	Jul 28	0.102	Jul 08	0.097
4th High	Sep 17	0.108	Aug 25	0.102	Aug 10	0.097
*Days > Nat'l Standard	15		18		11	
**Year Coverage	100		100		97	

Start Over:



- \* The number of days at least one overlapping 8-hour average was greater than the level of the national 8-hour standard (0.08 parts per million). The number of days above the standard is not the number of violations of the standard for the year.
- \*\* Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



View this page for another pollutant:

- [Hourly O<sub>3</sub>](#)
- [8-Hour O<sub>3</sub>](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO<sub>2</sub>](#)
- [SO<sub>2</sub>](#)
- [H<sub>2</sub>S](#)

Start Over:



### Highest 4 Daily PM10 Measurements and Annual PM10 Statistics at Azusa

micrograms per cubic meter

		2000	2001	2002
High	Jul 05	94.0	Oct 16	106.0
2nd High	Dec 02	93.0	May 01	91.0
3rd High	Jul 25	77.0	Oct 22	78.0
4th High	Apr 12	74.0	May 31	77.0
<b>Measured:</b>				
*Days > State Standard		24	22	23
*Days > Nat'l Standard		0	0	0
<b>Calculated:</b>				
*Days > State Standard		144.0	132.0	138.0
*Days > Nat'l Standard		0.0	0.0	0.0
***State Annual Average		42	39	42
***Nat'l Annual Average		46	45	45
**3-Year Nat'l Average		48	49	46
****Year Coverage		95	94	

[← Go Backward a Year](#)   [Go Forward a Year →](#)

[Make a New Request](#)

- \* Measured days are those days that an actual measurement was greater than the level of the state daily standard (50 micrograms per cubic meter) or the national daily standard (150 micrograms per cubic meter). Measurements are typically collected every six days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.
- \*\* The 3-year statistics include data from the listed year and the two years before the listed year.
- \*\*\* The state annual average is a geometric mean of all measurements. The national annual average is an arithmetic average of the 4 arithmetic quarterly averages.
- \*\*\*\* Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



Home

**California  
Air Resources Board**

[ARB Home](#)   [AQD Home](#)   [Search](#)   [Site Map](#)   [Contact Us](#)

View this page for another pollutant:

- [Hourly O<sub>3</sub>](#)
- [8-Hour O<sub>3</sub>](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO<sub>2</sub>](#)
- [SO<sub>2</sub>](#)
- [H<sub>2</sub>S](#)

**Highest 4 Daily Maximum 8-Hour  
Carbon Monoxide Averages  
and Number of Days Above the 8-Hour Standards  
at Azusa**

parts per million

		2000		2001		2002	
High	Dec 01	4.75		Oct 26	2.97	Sep 23	2.39
2nd High	Dec 02	4.64		Oct 25	2.69	Nov 05	2.29
3rd High	Feb 08	2.88		Dec 28	2.60	Feb 07	2.13
4th High	Jan 23	2.84		Oct 16	2.50	Nov 07	2.13
*Days > State Standard		0		0		0	
*Days > Nat'l Standard		0		0		0	
**Year Coverage		98		98		97	

Start Over:



[← Go Backward a Year](#)   [Go Forward a Year →](#)

[Make a New Request](#)

- \* The number of days at least one non-overlapping 8-hour average was greater than the level of the state 8-hour standard (9.0 parts per million) or the national 8-hour standard (9 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.
- \*\* Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



[ARB Home](#)   [AQD Home](#)   [Search](#)   [Site Map](#)   [Contact Us](#)

View this page for another pollutant:

- [Hourly O<sub>3</sub>](#)
- [8-Hour O<sub>3</sub>](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO<sub>x</sub>](#)
- [SO<sub>2</sub>](#)
- [H<sub>2</sub>S](#)

**Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements and Number of Days Above the Hourly Standard at Azusa**  
 parts per million

	2000		2001		2002	
High	Dec 02	0.154	Oct 16	0.124	Nov 05	0.121
2nd High	Dec 23	0.138	Oct 26	0.120	Sep 24	0.111
3rd High	Dec 24	0.133	Nov 17	0.119	Nov 14	0.109
4th High	Dec 21	0.129	Oct 15	0.112	Sep 09	0.104
*Days > State Standard	0		0		0	
Annual Average	0.036		0.033		0.033	
**Year Coverage	100		100		94	

Start Over:



[← Go Backward a Year](#)   [Go Forward a Year →](#)

[Make a New Request](#)

\* The number of days at least one measurement was greater than the level of the state hourly standard (0.25 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

\*\* Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.

## URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Azusa General Plan\Existing.  
 Project Name: Azusa General Plan Existing  
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT  
 (Tons/Year)

## UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Single family housing	170.50	214.13	1,856.81	93.34	1.10
Condo/townhouse general	47.34	55.17	478.36	24.05	0.28
High school	16.52	19.67	167.00	8.34	0.10
Library	2.32	2.73	23.73	1.11	0.01
Recreation	0.83	0.71	6.21	0.29	0.00
Hotel	2.34	2.76	23.46	1.16	0.01
Regnl shop. center > 5700	82.16	89.59	787.37	35.61	0.42
Nursery	0.16	0.17	1.43	0.07	0.00
General office building	58.56	73.10	622.52	31.67	0.37
Government (civic center)	13.20	17.01	145.05	7.17	0.08
General light industry	152.11	205.16	1,738.05	90.29	1.05
TOTAL EMISSIONS (tons/year)	546.04	680.19	5,850.00	293.08	3.43

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

## OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2003 Temperature (F): 75 Season: Annual

EMFAC Version: EMFAC2001 (10/2001)

## Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	7.20 trips / dwelling units	9,552.00	68,774.40
Condo/townhouse general	3.63 trips / dwelling units	4,881.00	17,718.03
High school	5.67 trips / 1000 sq. ft.	1,381.16	7,831.19
Library	55.13 trips / 1000 sq. ft.	25.51	1,406.37
Recreation	2.23 trips / Acre	165.00	367.95
Hotel	6.83 trips / rooms	173.61	1,185.75
Regnl shop. center > 5700	22.22 trips / 1000 sq. ft.	2,309.07	51,307.51
Nursery	2.40 trips / 1000 sq. ft.	26.84	64.41
General office building	5.56 trips / 1000 sq. ft.	4,258.32	23,676.28
Government (civic center)	30.00 trips / 1000 sq. ft.	235.08	7,052.40
General light industry	7.45 trips / 1000 sq. ft.	7,569.26	56,390.99

## Vehicle Assumptions:

## Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60



Med Truck	5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy	8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy	10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy	14,001-33,000	1.10	9.10	27.30	63.60
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		0.00	0.00	0.00	100.00
Motorcycle		1.40	90.90	9.10	0.00
School Bus		0.10	0.00	0.00	100.00
Motor Home		0.70	0.00	100.00	0.00

## 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)						
High school				10.0	5.0	85.0
Library				5.0	2.5	92.5
Recreation				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Regnl shop. center > 570000 sf				2.0	1.0	97.0
Nursery				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Government (civic center)				10.0	5.0	85.0
General light industry				50.0	25.0	25.0

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2002 to 2003.

The operational winter selection item changed from 3 to 2.

The operational summer temperature changed from 90 to 75.

The operational summer selection item changed from 8 to 5.

The double counting internal work trip limit changed from to 17298.486.

The double counting shopping trip limit changed from to 19572.99534405.

The double counting other trip limit changed from to 37191.7449.

## URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Azusa General Plan\Future.ur  
 Project Name: Azusa General Plan Future  
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT  
 (Tons/Year)

## UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Single family housing	91.66	98.57	1,103.22	104.03	0.73
Condo/townhouse general	32.02	31.05	347.47	32.77	0.23
High school	11.21	11.17	122.27	11.43	0.08
Library	3.30	3.43	37.78	3.38	0.02
Recreation	1.74	1.23	13.49	1.21	0.01
Hotel	1.40	1.43	15.60	1.45	0.01
Regnl shop. center > 5700	41.36	40.24	443.69	38.91	0.27
General office building	28.34	30.39	336.60	31.74	0.22
Government (civic center)	6.49	7.37	80.85	7.51	0.05
General light industry	102.82	119.83	1,329.70	126.96	0.88
TOTAL EMISSIONS (tons/year)	320.33	344.71	3,830.67	359.39	2.51

Includes correction for passby trips.

Does not include double counting adjustment for internal trips.

## OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 75 Season: Annual

EMFAC Version: EMFAC2001 (10/2001)

## Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	7.13 trips / dwelling units	10,772.00	76,804.36
Condo/townhouse general	3.44 trips / dwelling units	7,032.00	24,190.08
High school	5.01 trips / 1000 sq. ft.	2,147.14	10,757.19
Library	32.65 trips / 1000 sq. ft.	131.79	4,302.88
Recreation	2.23 trips / Acre	689.00	1,536.47
Hotel	7.17 trips / rooms	207.50	1,487.78
Regnl shop. center > 5700	21.13 trips / 1000 sq. ft.	2,658.69	56,178.20
General office building	5.55 trips / 1000 sq. ft.	4,284.09	23,776.71
Government (civic center)	30.00 trips / 1000 sq. ft.	246.76	7,402.65
General light industry	7.46 trips / 1000 sq. ft.	10,648.51	79,437.86

## Vehicle Assumptions:

## Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10

Lite-Heavy	10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy	14,001-33,000	1.10	9.10	27.30	63.60
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		0.00	0.00	0.00	100.00
Motorcycle		1.40	90.90	9.10	0.00
School Bus		0.10	0.00	0.00	100.00
Motor Home		0.70	0.00	100.00	0.00

## 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)

High school	10.0	5.0	85.0
Library	5.0	2.5	92.5
Recreation	5.0	2.5	92.5
Hotel	5.0	2.5	92.5
Regnl shop. center > 570000 sf	2.0	1.0	97.0
General office building	35.0	17.5	47.5
Government (civic center)	10.0	5.0	85.0
General light industry	50.0	25.0	25.0

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2002 to 2020.

The operational winter selection item changed from 3 to 2.

The operational summer temperature changed from 90 to 75.

The operational summer selection item changed from 8 to 5.

The double counting internal work trip limit changed from to 20198.888.

The double counting shopping trip limit changed from to 25673.3394472.

The double counting other trip limit changed from to 43427.6092.

The travel mode environment settings changed from both to: both

## TAHA CALINE 4 ASSUMPTIONS & INPUTS

Project:	Azusa General Plan
Project Number:	9926
Existing Year:	2003
Project Year:	2023
Existing VMT (from EMFAC2002):	325,360,416
Project VMT (from EMFAC2002):	410,210,496
Existing Year Vehicle Trips:	62,586,560
Project Year Vehicle Trips:	79,647,800
EMFAC Model:	EMFAC2002
Existing Emissions Factors (21 mph):	7.82
Project Year Emissions Factors (21 mph):	1.552
Persistence Factor:	0.6
Existing 8-Hr Ambient CO Concentration (ppm):	4.64
Existing 1-Hr Ambient CO Concentration (ppm):	7.73

EMFAC Assumptions	
Season/Month:	Winter
Temperature:	55°F
Speed:	21 mph

Source: Transportation Project-Level Carbon Monoxide Protocol, 12/1997

CALINE 4 INPUTS		
Project Scenario:	Existing	Future Project
Project Year:	2003	2023
Average Time (seconds):	60	60
Surface Roughness Factor:	100	100
Emissions Factor - Free Flow Link (g/veh-mile):	7.82	1.55
Emissions Factor - Idle (g/veh-hr):	n/a	n/a
Saturation Flow Rate (veh/hr):	1600	1600
Receptor Height (Z-Coordinate) (feet):	5	5
Wind Speed (m/s):	1	1
Stability Class:	F	F
Ambient 1-Hr CO Concentration (ppm):	7.73	1.94

Analyzed Segments:		CALINE 4 names		Scenario:
		Existing	Project	
a. Sierra Madre	Todd to Vernon	sm1ex	sm1pr	PM Peak
1. Sierra Madre	Vernon to San Gabriel	sm2ex	sm2pr	PM Peak
b. Sierra Madre	San Gabriel to Azusa	sm3ex	sm3pr	PM Peak
2. Sierra Madre	Azusa to City Limit	sm4ex	sm4pr	PM Peak
3. Foothill Blvd.	Todd to Vernon	fo1ex	fo1pr	PM Peak
4. Foothill Blvd.	Vernon to San Gabriel	fo2ex	fo2pr	PM Peak
c. Foothill Blvd.	San Gabriel to Azusa	fo3ex	fo3pr	PM Peak
5. Foothill Blvd.	Azusa to Cerritos	fo4ex	fo4pr	PM Peak
d. Foothill Blvd.	Cerritos to Alost	fo5ex	fo5pr	PM Peak
6. Alost Avenue	Foothill to Citrus	al1ex	al1pr	PM Peak
7. Alost Avenue	Citrus to Barranca	al2ex	al2pr	PM Peak
e. Gladstone	Irwindale to Vincent	gl1ex	gl1pr	PM Peak
8. Gladstone	Vincent to Vernon	gl2ex	gl2pr	PM Peak
f. Gladstone	Vernon to Cerritos	gl3ex	gl3pr	PM Peak
9. Gladstone	Cerritos to Citrus	gl4ex	gl4pr	PM Peak
g. Arrow Hwy	Azusa to Cerritos	ar1ex	ar1pr	PM Peak
10. Arrow Hwy	Cerritos to Citrus	ar2ex	ar2pr	PM Peak
11. Irwindale	First to Gladstone	ir1ex	ir1pr	PM Peak
12. Todd Avenue	Sierra Madre to Foothill	to1ex	to1pr	PM Peak
13. Vernon Ave.	Sierra Madre to Ninth	ve1ex	ve1pr	PM Peak
h. Vernon Ave.	Ninth to Foothill	ve2ex	ve2pr	PM Peak
i. Vernon Ave.	Foothill to First	ve3ex	ve3pr	PM Peak
14. Vernon Ave.	First to Gladstone	ve4ex	ve4pr	PM Peak
15. San Gabriel Cyn	Mirador to Sierra Madre	sgc1ex	sgc1pr	PM Peak
j. San Gabriel Cyn	Sierra Madre to Sierra Madre	sgc2ex	sgc2pr	PM Peak
16. San Gabriel Ave.	Sierra Madre to Ninth	sg1ex	sg1pr	PM Peak
k. San Gabriel Ave.	Ninth to Foothill	sg2ex	sg2pr	PM Peak
17. San Gabriel Ave.	Foothill to Fifth	sg3ex	sg3pr	PM Peak
18. San Gabriel Ave.	Fifth to First	sg4ex	sg4pr	PM Peak
19. Azusa Avenue	Sierra Madre to Ninth	az1ex	az1pr	PM Peak
l. Azusa Avenue	Ninth to Foothill	az2ex	az2pr	PM Peak
20. Azusa Avenue	Foothill to Fifth	az3ex	az3pr	PM Peak
21. Azusa Avenue	Fifth to First	az4ex	az4pr	PM Peak
22. Azusa Avenue	I-210 to Gladstone	az5ex	az5pr	PM Peak
23. Azusa Avenue	Gladstone to Arrow	az6ex	az6pr	PM Peak
m. Pasadena Ave.	Thirteenth to Eleventh	pa1ex	pa1pr	PM Peak
24. Pasadena Ave.	Eleventh to Ninth	pa2ex	pa2pr	PM Peak
n. Pasadena Avenue	Ninth to Foothill	pa3ex	pa3pr	PM Peak
o. Cerritos Avenue	Foothill to Fifth	ce1ex	ce1pr	PM Peak
25. Cerritos Avenue	Fifth to First	ce2ex	ce2pr	PM Peak
26. Cerritos Avenue	First to Gladstone	ce3ex	ce3pr	PM Peak
27. Citrus Avenue	Alost to Base Line	ci1ex	ci1pr	PM Peak
28. Citrus Avenue	Base Line to Gladstone	ci2ex	ci2pr	PM Peak
p. Citrus Avenue	Gladstone to Arrow	ci3ex	ci3pr	PM Peak
29. Barranca Ave.	Alost to Base Line	ba1ex	ba1pr	PM Peak
q. Azusa Avenue	Sierra Madre to Sierra Madre	az7ex	az7pr	PM Peak
30. River Parkway	Sierra Madre to Foothill	n/a	rp1pr	PM Peak
31. River Parkway	San Gabl Cyn to Sierra Madre	n/a	rp2pr	PM Peak
32. Vincent Avenue	I-210 to Foothill	n/a	vi1pr	PM Peak
33. Vincent Avenue	I-210 to First	n/a	vi2pr	PM Peak
34. Vincent Avenue	First to Gladstone	n/a	vi3pr	PM Peak
35. I-210	Irwindale to Citrus	210ex	210pr	PM Peak

## TAHA CALINE 4 OUTPUT SUMMARY

Analyzed Segments:		CO Concentrations	
		Existing	Project
a. Sierra Madre	Todd to Vernon	8.2	2.1
1. Sierra Madre	Vernon to San Gabriel	8.2	2.1
b. Sierra Madre	San Gabriel to Azusa	8	2.1
2. Sierra Madre	Azusa to City Limit	8.1	2.1
3. Foothill Blvd.	Todd to Vernon	8.5	2.3
4. Foothill Blvd.	Vernon to San Gabriel	8.7	2.3
c. Foothill Blvd.	San Gabriel to Azusa	8.7	2.2
5. Foothill Blvd.	Azusa to Cerritos	8.6	2.2
d. Foothill Blvd.	Cerritos to Alostia	8.4	2.2
6. Alostia Avenue	Foothill to Citrus	8.5	2.2
7. Alostia Avenue	Citrus to Barranca	8.7	2.2
e. Gladstone	Irwindale to Vincent	8.3	2.1
8. Gladstone	Vincent to Vernon	8.3	2.1
f. Gladstone	Vernon to Cerritos	8.3	2.1
9. Gladstone	Cerritos to Citrus	8.3	2.2
g. Arrow Hwy	Azusa to Cerritos	8.7	2.4
10. Arrow Hwy	Cerritos to Citrus	8.7	2.4
11. Irwindale	First to Gladstone	9.7	2.4
12. Todd Avenue	Sierra Madre to Foothill	8.3	2.2
13. Vernon Ave.	Sierra Madre to Ninth	8	2
h. Vernon Ave.	Ninth to Foothill	8.1	2
i. Vernon Ave.	Foothill to First	8.2	2
14. Vernon Ave.	First to Gladstone	8.5	2
15. San Gabriel Cyn	Mirador to Sierra Madre	8	2
j. San Gabriel Cyn	Sierra Madre to Sierra Madre	7.9	2
16. San Gabriel Ave.	Sierra Madre to Ninth	8	2
k. San Gabriel Ave.	Ninth to Foothill	8.1	2.1
17. San Gabriel Ave.	Foothill to Fifth	8.2	2.1
18. San Gabriel Ave.	Fifth to First	8.3	2.1
19. Azusa Avenue	Sierra Madre to Ninth	8	2
l. Azusa Avenue	Ninth to Foothill	8.2	2.1
20. Azusa Avenue	Foothill to Fifth	8.5	2.2
21. Azusa Avenue	Fifth to First	8.3	2.1
22. Azusa Avenue	I-210 to Gladstone	9.3	2.4
23. Azusa Avenue	Gladstone to Arrow	9.3	2.4
m. Pasadena Ave.	Thirteenth to Eleventh	7.9	2
24. Pasadena Ave.	Eleventh to Ninth	7.8	2
n. Pasadena Avenue	Ninth to Foothill	7.8	2
o. Cerritos Avenue	Foothill to Fifth	8.3	2.1
25. Cerritos Avenue	Fifth to First	8.3	2.1
26. Cerritos Avenue	First to Gladstone	8.2	2
27. Citrus Avenue	Alostia to Base Line	8.4	2.3
28. Citrus Avenue	Base Line to Gladstone	8.6	2.3
p. Citrus Avenue	Gladstone to Arrow	8.6	2.3
29. Barranca Ave.	Alostia to Base Line	8.6	2.2
q. Azusa Avenue	Sierra Madre to Sierra Madre	7.9	2
30. River Parkway	Sierra Madre to Foothill	n/a	2.1
31. River Parkway	San Gabl Cyn to Sierra Madre	n/a	2
32. Vincent Avenue	I-210 to Foothill	n/a	2.2
33. Vincent Avenue	I-210 to First	n/a	2.2
34. Vincent Avenue	First to Gladstone	n/a	2.2
35. I-210	Irwindale to Citrus	13	3.4



Example of a CALINE 4 output sheet—output sheets for all street segments are available upon request.

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: C:\CALRoads\Azusa\smlpr.clv  
 RUN: smlpr (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S                      Z0= 114. CM                      ALT= 0. (FT)  
 BRG= WORST CASE                VD= .0 CM/S  
 CLAS= 6 (F)                      VS= .0 CM/S  
 MIXH= 1000. M                    AMB= 1.9 PPM  
 SIGTH= 10. DEGREES              TEMP= 12.8 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. Link_1	0	494	2000	494	AG	620	1.4	.0	32.0
B. Link_2	2000	506	0	506	AG	620	1.4	.0	32.0

III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. 1	1000	478	5.4
2. 2	1000	522	5.4

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	* CONC A (PPM)	* CONC B (PPM)
1. 1	82.	2.1	.1	.0
2. 2	98.	2.1	.0	.1

□



Title : South Coast Air Basin Avg 2003 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 09/03/03 17:30:48  
 Scen Year: 2003 -- Model Years: 1965 to 2003  
 Season : Winter  
 Area : South Coast AB

\*\*\*\*\*  
 \*\*\*\*\*

Year:2003 -- Model Years 1965 to 2003 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Average South Coast A Basin Average Basin

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Total Organic Gases Temperature: 55F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
20	0.450	0.532	0.606	1.507	2.787	3.636	0.555
21	0.428	0.507	0.576	1.436	2.631	3.550	0.529
25	0.356	0.425	0.479	1.201	2.124	3.288	0.442
30	0.295	0.354	0.395	0.990	1.686	3.112	0.367
35	0.256	0.309	0.341	0.841	1.394	3.082	0.319
40	0.232	0.282	0.307	0.737	1.199	3.195	0.289
45	0.220	0.269	0.289	0.665	1.074	3.465	0.274

Pollutant Name: Carbon Monoxide Temperature: 55F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
20	6.850	9.040	8.362	13.349	21.856	30.895	8.038
21	6.689	8.809	8.117	12.668	20.705	30.503	7.820
25	6.126	8.018	7.294	10.494	17.053	29.583	7.080
30	5.575	7.272	6.548	8.694	14.069	29.817	6.389
35	5.161	6.739	6.041	7.593	12.274	31.637	5.901
40	4.861	6.385	5.728	6.989	11.322	35.343	5.578
45	4.667	6.198	5.592	6.782	11.041	41.580	5.408

Pollutant Name: Oxides of Nitrogen Temperature: 55F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
20	0.736	1.109	1.704	13.733	16.024	1.276	1.615
21	0.724	1.090	1.677	13.506	15.662	1.286	1.588
25	0.682	1.026	1.589	12.807	14.562	1.328	1.500

30	0.644	0.971	1.517	12.345	13.838	1.381	1.432
35	0.621	0.938	1.482	12.291	13.723	1.436	1.403
40	0.611	0.925	1.480	12.633	14.184	1.492	1.412
45	0.612	0.930	1.510	13.403	15.279	1.548	1.458

Pollutant Name: Carbon Dioxide                      Temperature: 55F Relative  
Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
20	477.375	568.192	781.552	1757.904	1955.990	142.688	595.467
21	460.235	547.898	752.414	1749.641	1935.959	139.440	576.899
25	403.568	480.803	657.026	1723.371	1872.277	128.002	515.646
30	354.081	422.211	575.010	1701.857	1820.125	116.727	462.341
35	322.402	384.703	523.252	1688.911	1788.742	108.219	428.323
40	304.636	363.668	494.627	1682.097	1772.224	102.027	409.300
45	298.704	356.644	485.423	1680.215	1767.663	97.843	402.994

Pollutant Name: Sulfur Dioxide                      Temperature: 55F Relative  
Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
20	0.005	0.006	0.010	0.134	0.134	0.002	0.012
21	0.005	0.006	0.010	0.134	0.134	0.002	0.012
25	0.004	0.005	0.009	0.134	0.133	0.002	0.012
30	0.004	0.005	0.008	0.133	0.132	0.002	0.011
35	0.003	0.004	0.008	0.133	0.132	0.002	0.011
40	0.003	0.004	0.007	0.133	0.132	0.002	0.011
45	0.003	0.004	0.007	0.133	0.132	0.002	0.010

Pollutant Name: PM10                                      Temperature: 55F Relative  
Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
20	0.018	0.026	0.032	0.440	0.294	0.038	0.043
21	0.017	0.025	0.031	0.424	0.281	0.037	0.041
25	0.014	0.020	0.026	0.368	0.236	0.034	0.035
30	0.012	0.017	0.021	0.316	0.197	0.032	0.029
35	0.010	0.014	0.018	0.276	0.170	0.032	0.025
40	0.009	0.013	0.016	0.248	0.151	0.033	0.023
45	0.008	0.012	0.015	0.227	0.140	0.036	0.021

Pollutant Name: PM10 - Tire Wear                      Temperature: 55F Relative  
Humidity: 50%



Title : South Coast Air Basin Avg 2023 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 09/03/03 17:34:12  
 Scen Year: 2023 -- Model Years: 1978 to 2023  
 Season : Winter  
 Area : South Coast AB

\*\*\*\*\*  
 \*\*\*\*\*

Year:2023 -- Model Years 1978 to 2023 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

South Coast A Basin Average Basin  
 Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Total Organic Gases Temperature: 55F Relative  
 Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
10	0.092	0.156	0.231	0.485	3.195	4.002	0.168
15	0.065	0.110	0.165	0.381	2.238	3.198	0.122
20	0.047	0.081	0.123	0.308	1.634	2.688	0.092
21	0.045	0.077	0.117	0.296	1.542	2.612	0.088
25	0.037	0.063	0.096	0.255	1.243	2.375	0.073
30	0.030	0.051	0.079	0.216	0.985	2.204	0.061
35	0.025	0.044	0.068	0.188	0.813	2.149	0.053
40	0.022	0.039	0.061	0.168	0.699	2.200	0.048

Pollutant Name: Carbon Monoxide Temperature: 55F Relative  
 Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
10	1.387	2.450	2.824	3.691	16.288	21.455	2.056
15	1.252	2.188	2.472	2.644	11.319	18.897	1.789
20	1.137	1.972	2.200	1.987	8.323	17.266	1.587
21	1.116	1.934	2.152	1.887	7.880	17.031	1.552
25	1.039	1.793	1.983	1.567	6.475	16.358	1.429
30	0.954	1.642	1.809	1.297	5.329	16.086	1.303
35	0.881	1.515	1.668	1.127	4.639	16.462	1.202
40	0.818	1.408	1.554	1.027	4.272	17.597	1.123

Pollutant Name: Oxides of Nitrogen Temperature: 55F Relative  
 Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
10	0.132	0.292	0.502	2.300	12.123	1.259	0.379

15	0.116	0.255	0.441	1.993	10.107	1.223	0.329
20	0.104	0.228	0.398	1.789	8.853	1.203	0.295
21	0.102	0.224	0.391	1.758	8.671	1.201	0.289
25	0.096	0.208	0.368	1.662	8.118	1.196	0.272
30	0.089	0.194	0.348	1.598	7.766	1.200	0.258
35	0.085	0.185	0.337	1.589	7.730	1.215	0.251
40	0.082	0.180	0.333	1.632	7.993	1.239	0.251

Pollutant Name: Carbon Dioxide                      Temperature: 55F Relative  
Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
10	714.849	897.415	1248.620	1957.069	2118.608	221.184	882.862
15	560.665	703.993	966.021	1894.531	1881.825	190.036	712.379
20	456.404	573.198	779.695	1856.453	1737.651	168.131	597.774
21	439.964	552.575	750.702	1850.791	1716.212	164.640	579.758
25	385.612	484.391	655.663	1832.788	1648.050	153.183	520.312
30	338.148	424.848	573.776	1818.045	1592.228	143.779	468.560
35	307.762	386.730	521.997	1809.173	1558.638	139.126	435.525
40	290.722	365.354	493.305	1804.504	1540.957	138.922	417.057

Pollutant Name: Sulfur Dioxide                      Temperature: 55F Relative  
Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
10	0.007	0.009	0.012	0.019	0.021	0.003	0.009
15	0.005	0.007	0.009	0.018	0.018	0.002	0.007
20	0.004	0.006	0.008	0.018	0.017	0.002	0.006
21	0.004	0.005	0.007	0.018	0.017	0.002	0.006
25	0.004	0.005	0.006	0.018	0.016	0.002	0.005
30	0.003	0.004	0.006	0.017	0.015	0.002	0.005
35	0.003	0.004	0.005	0.017	0.015	0.002	0.004
40	0.003	0.004	0.005	0.017	0.015	0.002	0.004

Pollutant Name: PM10                                      Temperature: 55F Relative  
Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
10	0.037	0.070	0.081	0.181	0.294	0.024	0.059
15	0.025	0.048	0.056	0.145	0.219	0.020	0.042
20	0.018	0.034	0.041	0.119	0.169	0.017	0.031
21	0.017	0.033	0.039	0.114	0.161	0.017	0.029
25	0.014	0.026	0.031	0.099	0.135	0.016	0.024
30	0.011	0.021	0.025	0.085	0.112	0.015	0.020
35	0.009	0.018	0.021	0.075	0.097	0.015	0.017

