ATTACHMENT

TABLE A-1

Ambient Air Quality Standards

	CALIFORNIA		FEDERAL		
AIR POLLUTANT	CONCENTRATION	DISTRICT METHOD	PRIMARY (>)	SECONDARY (>)	METHOD[a]
Ozone	0.09 ppm, 1-hr avg >	U.V. Photometry	0.12 ppm, 1-hr avg	0.12 ppm, 1-hr avg	Chemiluminescence
Carbon Monoxide	9.0 ppm, 8-hr avg >[b] 20 ppm, 1-hr avg >	Non-dispersive Infra-red Spectrophotometry	9 ppm, 8-hr avg[c] 35 ppm, 1-hr average	9 ppm, 8-hr avg 35 ppm, 1-hr avg	Non-dispersive Infra-red Spectrophotometry
Nitrogen Dioxide	0.25 ppm, 1-hr avg >[d]	Gas Phase Chemiluminescence	0.053 ppm,annual avg[e]	0.053 ppm,annual avg[e]	Gas Phase Chemiluminescence
Sulfur Dioxide	0.04 ppm, 24-hr avg >[f] 0.25 ppm, 1-hr avg >[g]	Ultraviolet Fluorescence	0.03 ppm,annual avg 0.14 ppm,24-hr avg	0.50 ppm,3-hr avg	Para-rosaniline
Suspended Particulate Matter (PM10)	30 µg/m^3, annual geometric mean > 50 µg/m^3, 24-hr avg >[h]	Size Segregated Inlet High-volume Sampling	50 µg/m^3, annual [i] arithmetic mean 150 µg/m^3, 24-hr avg	50 µg/m^3, annual [l] arithmetic mean 150 µg/m^3,24-hr avg	
Sulfates	25 µg/m^3, 24-hr avg >=	High-vol. Sampling Ion Chromatography			
Lead Sampling	1.5 µg/m^3, 30-day avg >=	High-vol. Sampling Atomic Absorption	1.5 µg/m^3,calendar quarter	1.5 µg/m^3,calendar quarter	High-vol. Sampling Atomic Absorption
Hydrogen Sulfide	0.03 ppm, 1-hr avg >=	Cadmium Hydroxide Stractan			
Vinyl Chloride	0.010 ppm, 24-hr avg >=	Gas Chromatography			
Visibility- reducing Particles	In sufficient amount to give an extinction coefficient > .23 inverse kilometers (visual range less than 10 miles), with relative humidity < 70%, 8-hour average(10am - 6pm, PST)[j].	Nephelometry and AISI Tape Sampler (COH)			

a) Reference method as described by the federal government. An equivalent method of measurement may be used as approved by the federal government.
b) Effective December 15, 1982. The standards were previously 10 ppm, 12-hour average and 40 ppm, 1-hour average.
c) Effective September 13, 1985, standard changed from > 10 mg/m^3 (>= 9.3 ppm) to > 9 ppm(>= 9.5 ppm).
d) Effective March 9, 1987, standard changed from >= .25 ppm to > .25 ppm.
e) Effective July 1, 1985, standard changed from > 100 µg/m^3 (> .0532 ppm) to > .053 ppm (> .0534 ppm).
f) Effective July 29, 1992. The standard was previously >= .05 ppm, 24-hr average with ozone >= .1 ppm, 1-hr avg or TSP >= 100 µg/m^3, 24-hour avg.
g) Effective October 5, 1984. The standard was previously .5 ppm, 1-hour average.
h) Effective August 19, 1983. The standards were previously 60 µg/m^3 TSP, annual geometric mean, and 100 µg/m^3 TSP, 24-hour average.
i) Effective July 1, 1987. The standards were previously:
Primary - Annual geometric mean TSP > 75 µg/m^3, and 24-hour average TSP > 260 µg/m^3.
Secondary - Annual geometric mean TSP > 60 µg/m^3, and 24-hour average TSP > 150 µg/m^3.
j) Effective October 18,1989. The standard was previously "In sufficient amount to reduce the prevailing visibility to less than 10 miles at relative humidity less that 70%, 1 observation", and was based on human observation rather than instrumental measurement.

MH/SCB
AQES/PTIM
SCAQMD

TABLE A-2

Episode Criteria

	SCAQMD AND CALIFORNIA				FEDERAL		
AIR POLLUTANT	HEALTH ADVISORY (≥)	STAGE I (≥)	STAGE II (≥)	STAGE III (≥)	STAGE I (≥) (ALERT)	STAGE II (≥) (WARNING)	STAGE III (≥) (EMERGENCY)
Ozone	0.15 ppm, 1-hr. avg.	0.20 ppm, 1-hr. avg.	0.35 ppm, 1-hr. avg.	0.50 ppm, 1-hr. avg.	0.2 ppm, 1-hr. avg.	0.4 ppm, 1-hr. avg.	0.5 ppm, 1-hr. avg.
Carbon Monoxide		40 ppm, 1-hr. avg. 20 ppm, 12-hr. avg.	75 ppm, 1-hr. avg. 35 ppm, 12-hr. avg.	100 ppm, 1-hr. avg. 50 ppm, 12-hr. avg.	15 ppm, 8-hr. avg.	30 ppm, 8-hr. avg.	40 ppm, 8-hr. avg.
Nitrogen Dioxide					0.6 ppm, 1-hr. avg. 0.15 ppm, 24-hr. avg	1.2 ppm, 1-hr. avg. 0.30 ppm, 24-hr. avg.	1.6 ppm, 1-hr. avg. 0.40 ppm, 24-hr. avg.
Sulfur Dioxide		0.50 ppm, 1-hr. avg. 0.20 ppm, 24-hr. avg.	1.00 ppm, 1-hr. avg. 0.70 ppm, 24-hr. avg.	2.00 ppm, 1-hr. avg. 0.90 ppm, 24-hr. avg.	0.3 ppm, 24-hr. avg.	0.6 ppm, 24-hr. avg.	0.8 ppm, 24-hr. avg.
Suspended Particulate (PM_{10})					350 $\mu g/m^3$, 24-hr. avg.	420 $\mu g/m^3$, 24-hr. avg.	500 $\mu g/m^3$, 24-hr. avg.
Sulfates*	25 $\mu g/m^3$, 24-hr. avg. combined with ozone > 0.20 ppm, 1-hr. avg.						
Actions to be Taken**	Health Advisory to a) Persons with respiratory and coronary disease, b) School officials in order to curtail students' participation in strenuous activities.	First steps in abatement plans. Health Advisory to a) Persons with respiratory and coronary disease, b) School officials in order to curtail students' participation in strenuous activities.	Intermediate Steps. Abatement actions taken to reduce concentration of pollutant at issue.	Mandatory abatement measures. Extensive actions taken to prevent exposure at indicated levels. State can take action if local efforts failed.	Open burning prohibited. Reduction in vehicle operation requested. Industrial curtailment.	Incinerator use prohibited. Reduction in vehicle operation required. Further industrial curtailment.	Vehicle use prohibited. Industry shut down or curtailment. Public activities ceased.

hr. = hour avg. = average

* Episodes based upon these criteria are not classified according to stages.

** For ozone, actions a) and b) are taken at Health Advisory level. For all other pollutants, these actions are taken at Stage I Episode level.

MH/SCB
AQES/PTIM
SCAQMD

TABLE A-3

Air Monitoring Stations and Source/Receptor Areas

AREA #	SOURCE/RECEPTOR AREA*	ABBREVIATION	AIR MON STN #
LOS ANGELES COUNTY			
1	Central LA	Central LA	087
2	Northwest Coastal LA Co	NW Coast LA Co	091
3	Southwest Coastal LA Co	SW Coast LA Co	094
4	South Coastal LA Co	S Coast LA Co	072
6	West San Fernando Valley	W Sn Fernan V	074
7	East San Fernando Valley	E Sn Fernan V	069
8	West San Gabriel Valley	W Sn Gabrl V	088
9	East San Gabriel Valley 1	E Sn Gabrl V 1	060
9	East San Gabriel Valley 2	E Sn Gabrl V 2	591
10	Pomona/Walnut Valley 1	Pomona/Wln V 1	075
10	Pomona/Walnut Valley 2	Pomona/Wln V 2	108
11	South San Gabriel Valley	S Sn Gabrl V	085
12	South Central LA Co	S Cent LA Co	084
13	Santa Clarita Valley	Sta Clarita V	089
14	Antelope Valley**	Antelope V**	096
ORANGE COUNTY			
16	North Orange Co	N Orange Co	3177
17	Central Orange Co	Cent Orange Co	3176
18	North Coastal Orange Co	N Coast Orange	3195
19	Saddleback Valley	Saddleback V	3186
RIVERSIDE COUNTY			
22	Norco/Corona	Norco/Corona	4155
23	Metropolitan Riverside Co 1	Metro Riv Co 1	4144
23	Metropolitan Riverside Co 2	Metro Riv Co 2	4146
24	Perris Valley	Perris Valley	4149
25	Lake Elsinore Area	L Elsinore	4158
26	Temecula Valley	Temecula V	4160
28	Hemet/San Jacinto Valley	Hemet/Sn Jcnto	4141
29	Banning/San Gorgonio Pass**	San Gorgonio P**	4150
30	Coachella Valley 1**	Coachella V 1**	4137
30	Coachella Valley 2**	Coachella V 2**	4157
SAN BERNARDINO COUNTY			
32	Northwest San Bernardino Valley	NW SB V	5175
33	Southwest San Bernardino Valley	SW SB V	5171
34	Central San Bernardino Valley 1	Cent SB V 1	5197
34	Central San Bernardino Valley 2	Cent SB V 2	5203
35	East San Bernardino Valley	E SB V	5204
37	Central San Bernardino Mountains	Cent SB Mtn	5181

* Source/Receptor areas and numbers are shown in detail on the map "South Coast Air Quality Management District and Air Monitoring Areas" which is available from SCAQMD Public Information.

**Salton Sea or Mojave Desert Air Basin.

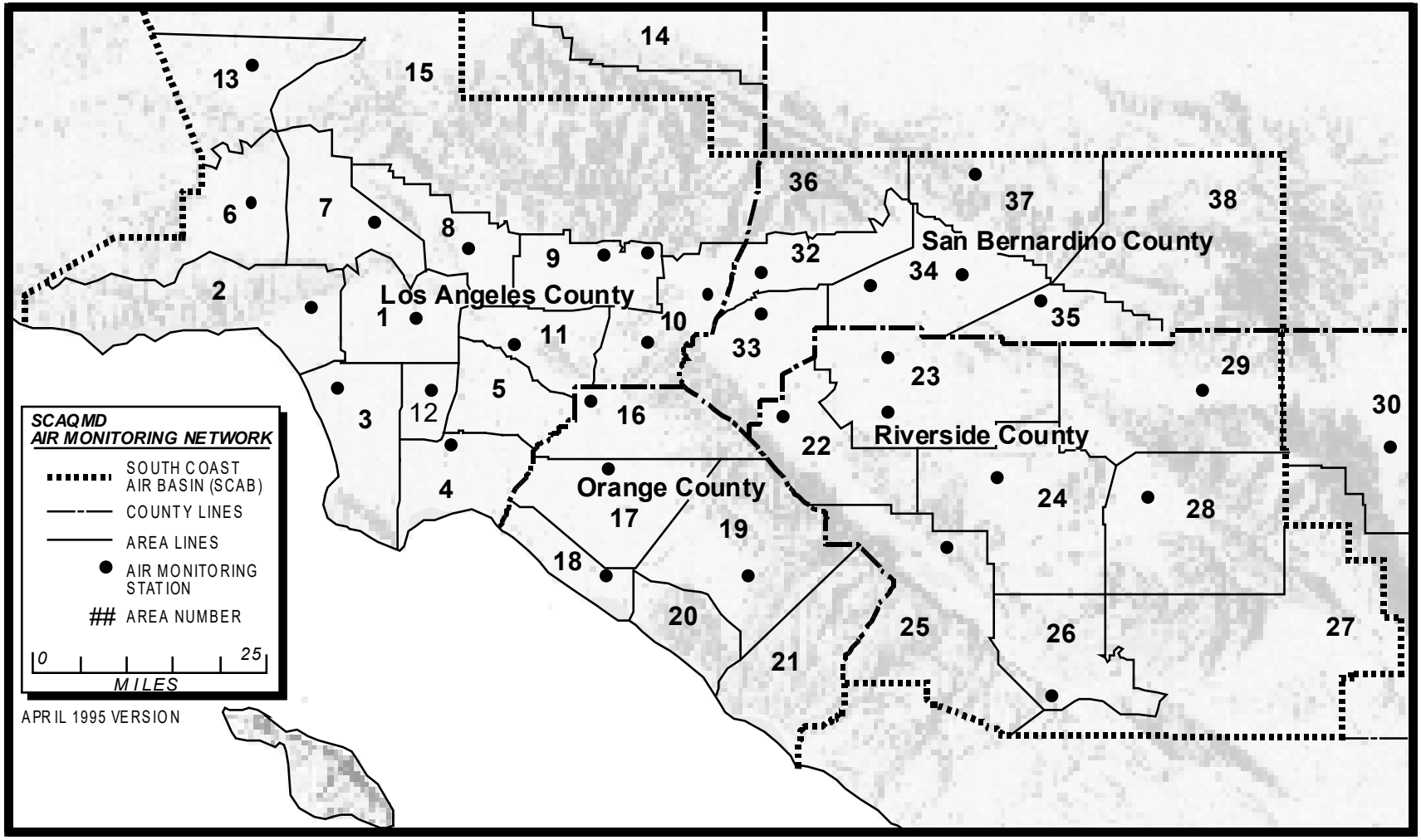

FIGURE A-1

South Coast Air Basin and Adjoining Areas of Salton Sea and Mojave Desert Air Basins

TABLE A-4

1995 Air Quality - Ozone

Source/Receptor Area No.	Location	Station No.	Ozone: No. Days of Data	Ozone: Max. Conc. in ppm 1-hour	Ozone: 2nd High Conc. ppm 1-hour	Ozone: No. Days Standard Exceeded Federal > .12 ppm 1-hour	Ozone: No. Days Standard Exceeded State > .09 ppm 1-hour
LOS ANGELES COUNTY							
1	Central LA	087	365	.17	.15	5	38
2	NW Coast LA Co	091	344*	.14*	.12*	1*	19*
3	SW Coast LA Co	094	365	.12	.10	0	3
4	S Coast LA Co	072	361	.11	.11	0	3
6	W Sn Fernan V	074	365	.15	.14	8	47
7	E Sn Fernan V	069	365	.17	.16	20	58
8	W Sn Gabrl V	088	362	.21	.19	44	88
9	E Sn Gabrl V	060/591	365	.22	.21	73	118
10	Pomona/Wln V	075/108	365	.22	.20	47	87
11	S Sn Gabrl V	085	365	.18	.17	20	66
12	S Cent LA Co	084	363	.09	.08	0	0
13	Sta Clarita V	089	365	.21	.17	26	72
14	Antelope V**	096	360	.14	.14	5	61
ORANGE COUNTY							
16	N Orange Co	3177	365	.16	.13	4	33
17	Cent Orange Co	3176	365	.13	.13	2	19
18	N Coast Orange	3195	356	.11	.11	0	3
19	Saddleback V	3186	365	.15	.12	1	18
RIVERSIDE COUNTY							
22	Norco/Corona	4155	362	.19	.18	23	75
23	Metro Riv Co	4144/4146	365	.21	.20	52	109
24	Perris Valley	4149	365	.20	.18	36	107
25	Lk Elsinore	4158	362	.19	.18	23	72
26	Temecula V	4163	365	.11	.10	0	6
28	Hemet/Sn Jcnto	4141	365	.15	.13	2	36
29	San Gorgonio P**	4150	365	.18	.16	15	48
30	Coachella V**	4137/4157	361	.16	.15	9	49
SAN BERNARDINO COUNTY							
32	NW SB V	5175	365	.24	.23	67	110
33	SW SB V	5171	--	--	--	--	--
34	Cent SB V	5197/5203	365	.22	.21	61	111
35	E SB V	5204	364	.24	.21	69	123
37	Cent SB Mtns	5181	365	.26	.22	65	113

ABBREVIATIONS USED IN AREA NAMES: LA = Los Angeles SB = San Bernardino
Riv = Riverside Co = County N = North S = South W = West
E = East V = Valley Lk = Lake P = Pass Cent = Central

Areas 9, 10, 23, 30 and 34 have two monitoring stations each. Values shown are the highest recorded at either station.

"No. Days of Data" for the areas with two stations is based on the annual average (if reported) or the number of days above state standard.

ppm - Parts Per Million parts of air, by volume. AAM - Annual Arithmetic Mean. -- - Pollutant not monitored.

* - Less than 12 full months of data. May not be representative.

** - Salton Sea or Mojave Desert Air Basin.

TABLE A-5

Ozone - Number of Days Exceeding the
Federal Standard (12 pphm, 1-Hour Average)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	129	137	155	146	129	137	104	123	129	117	126	111	125	112	84	73	91	79	72	63
069	E Sn Fernan V	138	75	102	92	99	91	63	95	73	87	93	76	64	40	40	55	47	16	18	20
072	S Coast LA Co	3	4	8	12	6	13	6	16	13	11	10	4	7	3	0	0	6	1	1	0
074	W Sn Fernan V	122	126	68	103	98	96	66	67	78	75	72	60	71	54	41	53	25	32	7	8
075	Pomona/Wln V 1	108	120	136	126	99	97	66	102	98	98	89	72	91	61	60	60	56	45	47	47
076	SW Coast LA Co	9	4	13	7	0	4	2	9	8	4*	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	70	53	65	47	40	56	44	67	60	58	39	40	29	37	21	23	32	12	--	--
084	S Cent LA Co	18*	3*	16	26	14*	15	13	27	22	16	16	11	12	7	3	1	4	0	0	0
085	S Sn Gabrl V	--	130	120	110	107	94	66	98	92	79	79	63	67	61	43	48	45	33	21	20
087	Central LA	71	58	55	50*	59	74	48	69	53	56	48	36	24	34	32	23	23	8	14	5
088	W Sn Gabrl V	129	134	152	151	118	116	89	122	125	116	110	95	119	80	69	70	71	53	61	44
089	Sta Clarita V	120	132	121	140	96	123	94	85	86	93	87	67	107	71	62	65	71	44	66	26
091	NW Coast LA Co	32	14	34*	44	35	40	20	37	35	37	30	16	16	15	8	9	12	7	2	1
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	8	3	5	3	0	0	1	1	0	0
096	Antelope V**	29	32	35	38	61*	82	25	42	49	58	46	32	44	27	7	8	25	14	10	5
591	E Sn Gabrl V 2	--	--	--	--	--	135	126	134	130*	141	148	135	148	121	103	91	118	96	88	73
108	Pomona/Wln V 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44	26	23
ORANGE COUNTY:																					
3176	Cent Orange Co 1	26	14	51	27	39	32	28	40	37	35	28	25	19	13	11	11	22	3	5	2
3177	N Orange Co	32	37	69	62	63	60	39	64	59	57	49	41	33	36	35	28	31	13	9	4
3186	Saddleback V	26	17*	33	24	25	18	18	24	26	30	12	16	18	7	11	10	9	7	5	1
3190	Cent Orange Co 2	20	18*	39	17	13	13	10	16	12	11	5	4	17	11	7	10	9	4	--	--
3195	N Coast Orange	3	6*	25	16	5	6	6	15	7	17	10	2	1*	--	3	5	3	1	0	0
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	51	57	49*	49	57	37	40	36	25	31	33	35	37	27	22	21*	20	13	9
4141	Hemet/Sn Jcnto	17	31	--	--	--	--	--	--	--	13	9	27	28	21	20	23	5	8	13	2
4144	Metro Riv Co 1	141	152	139	151	132	127	96	121	127	125	106	113	123	112	90	79	75	71	77	52
4149	Perris Valley	109	132	109	118	103	118	90	88	75	96	79	82	82	78	62	71	83	73	59	36
4150	San Gorgonio P**	--	62	79	84	76	50	58	67	48	55	45	53	64	60	43	31	19	8	25	15
4155	Norco/Corona	102	116	113	114	99	101	67	97	85*	92	77	73	61	56	13	54	16	17	14	23
4157	Coachella V 2**	--	35	37	16	--	30	18	33	19	16	--	--	--	16	10	13	8	3	0	3
4158	Lk Elsinore	55	74	--	--	--	--	--	--	--	--	--	--	--	62	36	45	24	27	27	23
4163	Temecula V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	1	0*	0
SAN BERNARDINO COUNTY:																					
5175	NW SB V	139*	151*	138*	135	131	139*	113*	120	115	110	111	101	122	97	64	67	81	55	79	67
5181	Cent SB Mtns	47*	142	123	139	125	131	121	117	139	114	117	119	128	127	103	90	103	88	107	65
5197	Cent SB V 1	145	160	155	164	146	147	96	127	136	126	121	116	124	112	92	74	88	65	91	57
5203	Cent SB V 2	112	139	138	140	130	134	111	117	125	111	108*	117	121	115	78	79	85	65	96	61
5204	E SB V 1	96	123	136	139	127	116	103	109	116	113	93	120	130	116	81	91	103	95	98	69

a) Station relocated in 1986.

* Less than 12 full months of data

** Salton Sea or Mojave Desert Air Basin

TABLE A-6

Ozone - Mean Daily Maximum 1-Hour Concentration
For Period May Through October, pphm

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	14.7	15.7	18.8	17.7	16.3	16.1	13.7	16.0	15.3	14.1	14.4	13.3	14.4	13.4	11.5	11.2	11.9	11.3	10.8	10.6
069	E Sn Fernan V	14.7	10.7	13.5	13.2	12.7	12.3	10.8	13.1	11.0	11.8	11.8	11.0	10.9	9.2	9.3	10.1	10.0	7.1	7.5	7.9
072	S Coast LA Co	3.6	4.1	5.5	5.9	5.9	6.1	5.1	6.7	6.2	6.1	5.9	5.2	5.6	5.4	4.2	4.9	6.0	5.2	5.7	5.7
074	W Sn Fernan V	13.7	14.5	11.5	13.7	13.4	12.2	10.2	11.1	11.5	10.7	11.2	10.8	11.5	10.4	9.8	10.2	8.8	9.0	7.8	7.6
075	Pomona/Wln V 1	13.5	15.0	17.6	16.0	13.3	13.0	11.5	13.9	12.8	12.5	12.3	11.2	12.2	10.4	10.3	10.4	10.1	9.7	9.7	9.5
076	SW Coast LA Co	4.7	4.2	6.8	5.0	5.0	6.0	5.0	6.4	5.4	5.2	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	10.9	9.0	10.6	9.5	8.0	10.2	8.9	11.2	10.2	9.8	9.0	9.1	8.5	8.6	7.3	7.7	8.1	7.2	--	--
084	S Cent LA Co	--	5.5	7.4	7.4	6.3	6.8	6.5	8.4	7.4	7.0	7.2	6.7	6.5	6.1	5.3	5.6	5.5	4.8	4.2	4.4
085	S Sn Gabrl V	--	14.3	15.7	14.3	13.0	12.7	10.9	13.3	12.2	11.1	11.3	10.5	11.2	10.5	9.1	9.8	9.3	8.7	8.5	8.3
087	Central LA	10.3	9.0	10.9	10.3	10.2	11.5	9.6	10.9	9.9	9.8	9.4	9.0	8.2	8.3	8.6	8.0	7.8	6.3	8.0	7.3
088	W Sn Gabrl V	14.9	15.0	19.3	18.0	15.1	14.9	12.9	15.7	14.6	13.9	13.7	12.2	13.4	11.5	10.9	10.9	10.4	9.6	10.2	9.4
089	Sta Clarita V	13.6	15.4	15.0	16.1	13.6	14.0	11.9	11.8	12.0	11.7	11.8	10.7	13.5	10.8	10.4	11.0	10.8	9.5	10.5	8.9
091	NW Coast LA Co	7.6	5.8	9.6	9.2	8.7	9.3	8.3	9.3	8.7	8.7	8.8	7.8	7.9	7.9	6.8	7.0	6.9	6.2	6.4	6.7
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	5.9	5.6	5.5	5.6	5.0	5.9	5.5	5.3	5.8	5.7
096	Antelope V**	9.0	8.9	8.2	9.4	11.0	11.7	8.7	9.4	9.9	10.2	9.8	9.4	9.9	9.0	8.0	8.1	8.7	8.0	8.1	8.2
108	Pomona/Wln V 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.9	8.3
591	E Sn Gabrl V 2	--	--	--	--	--	16.8	16.0	17.3	16.9	16.1	16.6	15.4	16.1	14.0	13.0	13.0	13.3	12.4	11.9	11.2
ORANGE COUNTY:																					
3176	Cent Orange Co 1	7.2	6.0	9.4	7.8	8.2	8.4	7.7	9.1	8.6	8.1	7.9	7.7	7.8	7.3	6.0	7.0	7.4	6.1	6.6	6.4
3177	N Orange Co	8.3	7.9	11.9	10.9	10.0	9.9	9.1	11.0	10.2	9.7	9.8	9.1	9.2	8.7	8.7	8.3	7.8	7.4	7.4	6.9
3186	Saddleback V	7.0	6.3	9.0	8.0	7.6	7.4	6.9	8.4	7.9	8.2	6.8	6.9	7.1	6.6	6.1	6.	66.4	6.4	6.5	6.1
3190	Cent Orange Co 2	6.8	--	9.2	7.6	7.5	7.0	6.2	7.2	6.2	6.0	6.2	5.9	7.5	7.0	6.6	7.1	6.6	6.3	--	--
3195	N Coast Orange	3.8	--	7.5	5.9	5.7	6.3	6.4	7.0	6.0	6.4	6.0	5.8	5.6	--	5.5	6.1	6.2	5.2	4.8	5.8
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	9.5	9.8	10.4	10.4	10.1	10.3	9.3	9.3	9.4	8.6	9.0	9.0	9.7	9.4	8.7	8.8	8.5	8.8	8.4	8.0
4141	Hemet/Sn Jcnto	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.1	8.1	7.7
4144	Metro Riv Co 1	14.5	15.9	16.8	16.6	16.2	14.4	12.9	14.9	14.1	14.1	12.9	13.3	13.6	12.9	12.2	12.1	11.3	11.2	11.1	10.2
4149	Perris Valley	12.3	14.1	13.9	13.6	12.5	13.2	11.6	11.9	11.3	12.1	11.1	11.2	11.2	11.1	10.2	11.2	11.2	10.9	10.4	9.9
4150	San Gorgonio P**	10.5	10.3	12.0	11.8	10.8	9.2	9.5	10.2	9.5	9.5	9.2	9.9	10.8	8.6	9.2	8.6	8.1	7.3	8.2	7.7
4155	Norco/Corona	12.4	13.2	14.5	13.5	11.0	12.9	11.3	13.2	12.1	11.9	11.5	11.3	10.8	10.1	7.2	10.5	7.6	8.3	8.5	8.8
4157	Coachella V 2**	7.2	9.0	9.2	7.2	--	8.8	8.5	8.8	8.3	8.4	--	9.9	10.8	10.2	7.8	8.1	7.6	7.1	7.4	7.6
4158	Lake Elsinore	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.9	9.7	9.0
4163	Temecula V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.4	5.9	6.1
SAN BERNARDINO COUNTY:																					
5175	NW SB V	--	17.5	17.2	16.3	16.5	16.3	14.5	15.1	14.3	13.6	13.6	12.6	13.9	12.3	10.7	11.1	11.5	10.5	11.2	10.8
5181	Cent SB Mtns	--	16.1	16.0	17.8	14.6	15.4	13.7	14.9	15.4	14.1	14.1	13.2	14.4	13.7	12.7	12.7	12.9	11.7	12.7	10.8
5197	Cent SB V 1	16.3	18.6	20.0	19.8	18.0	17.0	13.0	15.4	15.3	14.8	14.4	13.6	13.9	13.1	12.1	11.7	12.1	10.8	11.6	10.3
5203	Cent SB V 2	13.8	16.6	17.7	16.6	16.4	15.7	13.7	14.7	14.1	13.0	13.8	13.7	14.3	13.1	11.5	11.8	11.7	10.9	11.9	10.8
5204	E SB V	12.6	14.4	17.0	16.5	15.1	13.1	13.0	13.8	13.6	13.8	13.1	13.5	14.2	12.8	11.8	12.7	12.2	12.2	11.9	11.2

a) Station relocated in 1986

** Salton Sea or Mojave Desert Air Basin

TABLE A-7

Ozone
Annual Number Of Days Of First/Second Stage Episodes
(Days Maximum 1-Hour Average Ozone ≥ 0.20 ppm/≥ 0.35 ppm)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
060	E Sn Gabrl V	47/1	64/0	76/5	71/10	74/7	65/2	40/1	63/3	55/0	48/1	45/0	26/0	33/0	30/0	13/0	12/0	16/0	11/0	2/0	3/0
069	E Sn Fernan V	43/1	11/0	30/0	26/2	30/1	18/0	12/0	34/0	5/0	17/0	14/0	6/0	4/0	5/0	1/0	4/0	8/0	0/0	0/0	0/0
072	S Coast LA Co	0/0	0/0	0/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
074	W Sn Fernan V	33/0	37/0	16/0	24/0	36/1	12/0	4/0	11/0	6/0	9/0	5/0	2/0	4/0	5/0	0/0	2/0	0/0	0/0	0/0	0/0
075	Pomona/Wln V	37/1	58/0	72/9	57/3	49/1	32/0	31/0	45/0	30/0	32/0	24/0	16/0	16/0	10/0	12/0	8/0	10/0	6/0	3/0	2/0
080	SE LA Co	19/1	12/0	18/1*	16/0	5/0	18/0	7/0	23/0	17/0	11/0	4/0	4/0	5/0	4/0	0/0	0/0	1/0	0/0	--	--
084	S Cent LA Co	2/0*	0/0*	0/0	6/0	0/0*	1/0	2/0	3/0	4/0	1/0	1/0	1/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
085	S Sn Gabrl V	26/1*	52/0	48/5	38/3	38/1	28/0	18/1	35/0	24/0	19/0	18/0	7/0	12/0	16/0	0/0	6/0	5/0	0/0	2/0	0/0
087	Central LA	11/0	3/0	16/0	14/0	10/0	8/0	7/1	12/0	8/0	9/0	8/0	2/0	2/0	1/0	2/0	0/0	1/0	0/0	0/0	0/0
088	W Sn Gabrl V	51/0	55/0	85/8	78/11	56/3	48/0	33/1	59/0	49/0	41/1	33/0	15/0	18/0	17/0	7/0	10/0	10/0	5/0	2/0	1/0
089	Sta Clarita V	38/0	59/0	45/0	59/0	46/2	37/0	17/0	19/0	18/0	15/0	15/0	2/0	28/0	11/0	6/0	8/0	4/0	3/0	6/0	1/0
091	NW Coast LA Co	4/0	0/0	10/0*	7/0	3/0	3/0	3/0	6/0	5/0	4/0	1/0	1/0	2/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0
094	SW Coast LA Co	1/0	0/0	2/0	0/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	1/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
096	Antelope V**	0/0	2/0	5/0	1/0	7/0*	7/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0
108	Pomona/Wln V	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	3/0*	2/0	0/0
591	E Sn Gabrl V	--	--	--	--	30/5*	61/2	62/2	74/2	67/0	68/5	70/1	51/0	54/0	37/0	29/0	34/0	30/0	19/0	10/0	9/0
3176	Cent Orange Co	4/0*	0/0*	13/0	5/0	6/0	5/0	7/0	10/0	5/0	11/0	1/0	3/0	3/0	4/0	0/0	2/0	1/0	0/0	1/0	0/0
3177	N Orange Co	15/0	8/0	24/1	21/1	14/0	15/0	12/0	15/0	15/0	13/0	8/0	6/0	3/0	5/0	4/0	1/0	1/0	0/0	2/0	0/0
3186	Saddleback V	3/0	2/0	10/0	6/0	3/0	5/0	3/0	10/0	3/0	7/0	1/0	1/0	2/0	2/0	0/0	1/0	0/0	0/0	0/0	0/0
3188	Capistrano V	2/0*	1/0	2/0*	--	--	--	--	--	--	--	--	--	--	0/0*	--	--	--	--	--	--
3190	Cent Orange Co	2/0	0/0*	5/0	2/0	3/0	0/0	2/0	2/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	--	--
3191	N Orange Co	17/0	10/0	9/0	14/2	13/0	4/0*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3195	N Coast Orange	0/0	0/0*	3/0	1/0	0/0	1/0	0/0	2/0	1/0	1/0	0/0	0/0	0/0	--	0/0	0/0	0/0	0/0	0/0	0/0
4137	Coachella V**	3/0*	5/0	3/0	3/0*	4/0	0/0	0/0	0/0	1/0	2/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0*	0/0	0/0	0/0
4141	Hemet/Sn Jcnto	0/0	2/0	2/0*	--	--	--	--	--	--	1/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0
4144	Metro Riv Co	46/2	66/1	62/2	55/0	67/4	34/0	26/0	42/1	29/0	35/1	19/0	20/0	16/0	18/0	15/0	17/0	6/0	5/0	2/0	3/0
4149	Perris Valley	13/0	39/0	38/0	26/0	20/0	18/0	10/0	13/0	6/0	8/0	3/0	1/0	1/0	4/0	0/0	5/0	1/0	3/0	0/0	1/0
4150	San Gorgonio P**	20/0*	13/0	22/0	22/0	13/0	7/0	3/0	12/0	5/0	8/0	1/0	3/0	7/0	6/0	4/0	1/0	0/0	0/0	1/0	0/0
4155	Norco/Corona	26/0	31/1	34/2	24/0	32/0	24/1	15/1	29/1	19/0*	20/1	12/0	9/0	7/0	3/0	0/0	7/0	1/0	0/0	0/0	0/0
4157	Coachella V**	0/0*	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	1/0	--	0/0	--	0/0	0/0	0/0	0/0	0/0	0/0	0/0
4158	Lk Elsinore	1/0	10/0	7/0*	--	--	--	--	--	--	--	--	--	0/0*	4/0	0/0	1/0	0/0	0/0	0/0	0/0
4163	Temecula V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0/0	0/0	0/0	0/0
5175	NW SB V	61/1	85/2	68/2	59/2	73/4	62/1	0/0*	59/1	41/0	39/0	38/0	23/0	25/1	19/0	12/0	14/0	15/0	7/0	7/0	6/0

5181	Cent SB Mtns	11/0	63/0	73/0	80/3	54/0	49/1	29/0	48/0	49/0	41/0	34/0	22/0	38/0	30/0	16/0	15/0	22/0	5/0	12/0	6/0
5182	E SB V 2	28/0	39/0	56/0	0/0*	67/0	19/0 *	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	69/1	98/6	98/1 1	95/9	84/6	73/1	34/0	56/0	45/0	48/0	42/0	28/0	23/0	28/0	20/0	16/0	19/0	5/0	9/0	2/0
5198	SW SB V	39/1	42/3	22/2 *	--	--	--	--	--	--	15/0	14/0	0/0	--	--	--	--	--	--	--	--
5203	Cent SB V 2	51/0	70/1	72/1	62/0	72/2	58/1	38/0	49/0	36/0	30/0	41/0	27/0	31/0	22/0	8/0	9/0	17/0	4/0	7/0	4/0
5204	E SB V 1	25/1	48/0	64/2	57/0	61/0	20/0	30/0	41/0	26/0	31/0	22/0	26/0	25/0	17/0	11/0	16/0	7/0	8/0	8/0	4/0

* Less than 12 full months of data.
** Salton Sea or Mojave Desert Air Basin.

TABLE A-8

Ozone - Annual Maximum 1-Hour, ppm 1955-1995

	LOCATION	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
87	Central LA	.68	.47	.53	.61	.61	.41	.45	.50	.50	.46	.58	.50	.36	.46	.30	.33	.24	.25	.52	.25
60	E Sn Gabrl V 1	-	-	.42	.45	.56	.49	.45	.43	.34	.40	.54	.53	.65	.44	.54	.58	.48	.49	.46	.38
69	E Sn Fernan V	.30*	.33	.43	.39	.47	.33	.33/	.33	.38	.39	.40	.32	.47	.42	.38	.35	.31	.28	.29	.35
91	NW Coast LA Co	-	-	-	-	-	-	-	.40*	.40	.32	.39	.29	.36	.44	.30	.24	.26	.19	.39	.19
72	S Coast LA Co	-	-	-	.37	.30	.37	.34	.33/	.28	.27	.34	.27	.21	.33	.22	.18	.27	.17	.20	.27
74	W Sn Fernan V	-	-	-	-	-	-	-	-	-	-	.47	.44	.41	.34	.39	.37	.32	.29	.28	.28
75	Pomona/Wln V 1	-	-	-	-	-	-	-	-	-	-	.44*	.44	.43	.49	.45	.48	.35	.37	.32	.31
76/94	SW Coast LA Co	-	-	-	-	-	-	-	-	-	-	.32	.37	.33	.23	.25	.23	.21	.17	.24	.15
80	SE LA Co	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.43*	.36	.39	.29	.28	.35
89	Sta Clarita V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.20*	.41	.30	.29	.36	.26
96	Antelope V**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.06	.20	.16	.21	.15
88	W Sn Gabrl V	-	.46	.36/	.44*	.47	.54	.44	.46	.41	.42	.46	.43	.40/	.48*	.52	.51	.53	.38*	.45	.34
84	S Cent LA Co	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	.22*	.28
85	S Sn Gabrl V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
591	E Sn Gabrl V 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3176	Cent Orange Co 1	-	-	-	-	-	-	-	-	.27	.23	.41	.31	.30	.28	.30	.29	.34	.28	.26	.24
3177	N Orange Co 1	-	-	-	-	-	-	-	-	-	-	-	-	.23*	.26	.43	.30	.34	.32	.30	.44
3195	N Coast Orange	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.19	.21	.22
3186	Saddleback V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.19	.38
	Capistrano Valley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.20	.25
	Cent Coast Orange	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.16
	Cent Orange Co 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.14	-	.27
	N Orange Co 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.11
4137	Coachella V 1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.31	.25	.25	.24
4157	Coachella V 2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.26	.20	.17	.18
4155	Norco/Corona	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.05*	.30	.35	.31
4141	Hemet/Sn Jcnto	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.22	.20
4144	Metro Riv Co 1	-	-	-	-	-	-	-	-	.28	.40	.29	.31	.40	.34*	-		.45	.40*	.31	.32
4149	Perris Valley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.27*	.26
4150	San Gorgonio P**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.37	.19	.26	.32*	.24
4160	Temecula V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.15
4158	Lk Elsinore	-	-	-	-	-	-	-	-					-	-	-	-	-	-	-	.23*
5203	Cent SB V 2	-	-	-	-	-	-	-	-	.28	.32	.32	.31	.33	.28	.27	.36	.26	.34	.34	.27
	Barstow**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.10	.11*	.06*	.06*	.08*	.12
5204	E SB V	-	-	-	-	-	-	-	-	-	-	-	-	.12*	.32	.30	.42	.28	.31	.34	.31
	Victorville**	-	-	-	-	-	-	-	-	-	-	-	-	-	.09*	.14	.18*	.11	.12	.19	.16
5171	SW SB V	-	-	-	-	-	-	-	-	-	-	-	.32*	.21	.21	.22	.08*	-	-	.36	.34
5175	NW SB V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.48	.51
	NW SB V (ARB)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.51	.44
5197	Cent SB V 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.42*	.49
	Cent SB Mtns 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.13*	.27
5181	Cent SB Mtns 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.13*	.26*
	Yucaipa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.20*
	Twenty-Nine Palms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Data may not representative / Station location change District annual maximum 1-hour
** Salton Sea or Mojave Desert Air Basin

TABLE A-8 (continued)

Ozone - Annual Maximum 1-Hour, ppm 1955-1995

	LOCATION	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
87	Central LA	.25	.34	.21	.30	.31/	.29	.32	.40	.26	.29	.30	.22	.22	.21	.25	.20	.19	.20	.16	.19	.17
60	E Sn Gabrl V 1	.32	.38	.32	.40	.45	.41	.35	.36	.39	.31	.36	.31	.30	.30	.33	.23	.28	.27	.24	.25	.21
69	E Sn Fernan V	.27	.35	.31	.30	.39	.35	.27	.25	.31	.26	.30	.28	.23	.24	.20	.20	.22	.22	.18	.17	.17
91	NW Coast LA Co	.19	.28	.18/	.24/	.26	.21	.23	.28	.23	.27/	.27	.20	.28	.24	.25	.16	.18	.17	.18	.16	.14
72	S Coast LA Co	.14	.16	.15	.19	.21	.20	.23	.22	.30	.27	.23	.18	.17	.16	.16	.12	.11	.15	.14	.16	.11
74	W Sn Fernan V	.30	.27	.34	.27	.33	.38	.25	.22	.26	.26	.25	.22	.22	.25	.23	.19	.22	.17	.19	.14	.15
75	Pomona/Wln V 1	.33	.36	.32	.41	.35	.37	.33	.31	.34	.31	.33	.27	.29	.29	.25	.24	.24	.26	.21	.24	.22
76/94	SW Coast LA Co	.18	.22	.17	.30	.19	.11	.19	.16	.18	.22	.17/	.19	.20	.22	.19	.10	.11	.15	.13	.11	.12
80	SE LA Co	.25	.37	.30	.36	.32	.27	.27	.31	.32	.30	.32	.25	.23	.29	.26	.19	.19	.22	.19	-	--
89	Sta Clarita V	.30	.33	.33	.32	.32	.36	.29	.26/	.29	.27	.24	.24	.21	.30	.25	.23	.24	.22	.22	.26	.21
96	Antelope V**	.19	.19	.23	.27	.20	.29	.21	.16	.18	.18	.19	.20	.17	.18	.21	.15	.14	.17	.16	.14	.14
88	W Sn Gabrl V	.32	.34	.32	.42	.44	.41	.33	.37/	.34	.30	.37	.26	.28	.29	.27	.26	.23	.27	.22	.26	.21
84	S Cent LA Co	.19	.24	.24	.18	.29	.18	.21	.26	.23	.27	.21	.20	.24	.21	.14	.15	.16	.17	.12	.12	.09
85	S Sn Gabrl V	-	.35	.32	.43	.39	.39	.35	.39	.33	.27	.31	.24	.28	.30	.26	.19	.26	.26	.19	.22	.18
591	E Sn Gabrl V 2	-	-	-	-	-	.49	.39	.36	.38	.34	.39	.35	.33	.34	.34	.29	.32	.30	.28	.30	.22
3176	Cent Orange Co 1	.13*	.30	.19	.29	.33	.28	.26	.26	.30	.25	.25	.20	.22	.27	.24	.18	.25	.22	.17	.21	.13
3177	N Orange Co 1	.28	.30	.25	.35	.38	.31	.27	.32	.27	.32	.34	.25	.24	.29	.26	.21	.21	.21	.19	.25	.16
3195	N Coast Orange	.18	.16	.18	.22	.21/	.16	.20	.18	.25	.25	.21	.17	.16	.13	-	.15	.17	.15	.13	.12	.11
3186	Saddleback V	.19	.23	.20	.34	.32	.34	.33	.27	.29	.30	.28	.23	.20	.21	.23	.19	.24	.16	.16	.18	.15
	Capistrano Valley	.18	.20	.22	.32	-	-	-	-	-	-	.19	-	-	-	.15*	-	-	-	-	-	-
	Cent Coast Orange	.08*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cent Orange Co 2	.21	.26	.18	.27	.26	.22	.18	.23	.20	.19	.19	.15	.17	.23	.16	.17	.17	.18	.15	-	-
	N Orange Co 2	.33	.33	.30	.27	.39	.33	.23*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4137	Coachella V 1**	.21	.22	.21	.20	.24	.21	.19	.19	.19	.20	.24	.18	.17	.20	.19	.17	.18	.15*	.17	.17	.16
4157	Coachella V 2**	.20	.16	.19	.17	.21	.11	.18	.17	.18	.19	.20	-	.16	-	.16	.16	.18	.14	.16	.12	.14
4155	Norco/Corona	.15*	.33	.36	.40	.33/	.34	.37	.35	.35	.30	.35	.27	.24	.25	.23	.17	.22	.23	.16	.17	.19
4141	Hemet/Sn Jcnto	.18	.19	.25	.27	-	-	-	-	-	.18*	.23	.18	.18	.18	.19	.22	.19	.15	.18	.16	.15
4144	Metro Riv Co 1	.35	.36	.35	.39	.34	.37	.30	.31	.36	.32	.35	.25	.29	.28	.27	.29	.24	.26	.26	.25	.21
4149	Perris Valley	.27	.22	.28	.32	.25	.29	.24	.28	.26	.22	.29	.22	.20	.23	.21	.19	.20	.21	.20	.18	.20
4150	San Gorgonio P**	.27	.28	.27	.30	.27	.26	.23	.24	.26	.25	.29	.22	.21	.26	.23	.22	.20	.16	.16	.20	.18
4160	Temecula V	.18	.21	.17	.23	-	-	-	-	-	-	-	-	-	-	-	-	.17*	.13	.13	.10*	.11
4158	Lk Elsinore	.30	.20	.23	.30	-	-	-	-	-	-	-	-	-	-	.24	.19	.20	.17	.19	.19	.19
5203	Cent SB V 2	.38	.32	.37	.36	.34	.36	.36/	.30	.32	.30	.27/	.30	.25	.28	.30	.29	.25	.28	.21	.25	.20
	Barstow**	.12	.14*	.20	.16	.16	.19	.16	.16	-	-	-	-	-	-	-	-	-	-	-	-	-
5204	E SB V	.32	.35	.33	.39	.34/	.32	.24	.29	.30	.29	.33/	.29	.24	.29	.27	.30	.25	.27	.27	.23	.24
	Victorville**	.16	.13*	.22	.21/	.21	.26	.21	.20	-	-	-	-	-	-	-	-	-	-	-	-	-
5171	SW SB V	.33	.36	.37	.36	-	-	-	-	-	.32*	.32	.25	-	-	-	-	-	-	-	-	-
5175	NW SB V	.39	-	-	-	-	-	-	-	.36	.32	.33	.29	.28	.35	.32	.29	.27	.28	.24	.25	.24
	NW SB V (ARB)	.41	.38*	.38	.35	.37	.44	.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5197	Cent SB V 1	.38	.38	.39	.42	.42	.42	.35/	.31	.32	.32	.34	.31	.29	.29	.32	.27	.29	.28	.24	.25	.22
	Cent SB Mtns 2	.14*	.15	.22	.17	-	-	-	-	-	-	.26	-	-	-	-	-	-	-	-	-	-
5181	Cent SB Mtns 1	.27	.23	.32	.33	.40	.31	.35	.32	.28	.34	.30	.26	.29	.29	.27	.33	.27	.28	.24	.27	.26
	Yucaipa	.28*	.29	.32	.33	-	.33	.27*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Twenty-Nine Palms	-	-	-	.11*	.13	.12	.15	.13	-	-	-	-	-	-	-	-	-	-	-	-	-

* Data may not representative / Station location change District annual maximum 1-hour

** Salton Sea or Mojave Desert Air Basin

TABLE A-9

1995 Air Quality - Carbon Monoxide

Source/ Receptor Area No.	Location	Station No.	Carbon Monoxide						
							No. Days Standard Exceeded[a]		
			No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 8-hour	2nd High Conc. ppm 8-hour	Federal ≥9.5 ppm 8-hr	State ≥9.1 ppm 8-hr	State >20 ppm 1-hr
LOS ANGELES COUNTY									
1	Central LA	087	358	10	8.4	8.0	0	0	0
2	NW Coast LA Co	091	344*	8*	5.6*	5.6*	0*	0*	0*
3	SW Coast LA Co	094	360	11	8.9	8.7	0	0	0
4	S Coast LA Co	072	364	9	6.6	6.3	0	0	0
6	W Sn Fernan V	074	346	13	10.3	9.5	2	3	0
7	E Sn Fernan V	069	362	13	12.0	11.0	4	6	0
8	W Sn Gabrl V	088	365	11	9.1	8.5	0	1	0
9	E Sn Gabrl V	060/591	363	8	6.3	6.3	0	0	0
10	Pomona/Wln V	075/108	364	8	6.1	5.9	0	0	0
11	S Sn Gabrl V	085	365	10	7.9	7.6	0	0	0
12	S Cent LA Co	084	363	17	13.9	11.6	13	15	0
13	Sta Clarita V	089	359	7	4.1	3.9	0	0	0
14	Antelope V**	096	365	7	4.9	4.6	0	0	0
ORANGE COUNTY									
16	N Orange Co	3177	365	13	6.6	6.5	0	0	0
17	Cent Orange Co	3176	360	10	8.0	7.4	0	0	0
18	N Coast Orange	3195	363	8	6.6	5.3	0	0	0
19	Saddleback V	3186	363	6	4.0	4.0	0	0	0
RIVERSIDE COUNTY									
22	Norco/Corona	4155	--	--	--	--	--	--	--
23	Metro Riv Co	4144/4146	365	9	6.5	5.8	0	0	0
24	Perris Valley	4149	--	--	--	--	--	--	--
25	Lk Elsinore	4158	--	--	--	--	--	--	--
26	Temecula V	4163	--	--	--	--	--	--	--
28	Hemet/Sn Jcnto	4141	--	--	--	--	--	--	--
29	San Gorgonio P**	4150	--	--	--	--	--	--	--
30	Coachella V**	4137/4157	360	3	1.5	1.5	0	0	0
SAN BERNARDINO COUNTY									
32	NW SB V	5175	--	--	--	--	--	--	--
33	SW SB V	5171	--	--	--	--	--	--	--
34	Cent SB V	5197/5203	363	8	6.3	5.9	0	0	0
35	E SB V	5204	--	--	--	--	--	--	--
37	Cent SB Mtns	5181	--	--	--	--	--	--	--

ABBREVIATIONS USED IN AREA NAMES: LA = Los Angeles SB = San Bernardino
Riv = Riverside Co = County N = North S = South W = West
E = East V = Valley Lk = Lake P = Pass Cent = Central

Areas 9, 10, 23, 30 and 34 have two monitoring stations each. Values shown are the highest recorded at either station.
"No. Days of Data" for the areas with two stations is based on the annual average (if reported) or the number of days above state standard.
ppm - Parts Per Million parts of air, by volume. AAM - Annual Arithmetic Mean. -- - Pollutant not monitored.
* - Less than 12 full months of data. May not be representative.
** - Salton Sea or Mojave Desert Air Basin.
a) - The federal 1-hour standard (1-hour average CO > 35 ppm) was not exceeded.

TABLE A-10

Carbon Monoxide - Number of Days Maximum 8-Hour Average
Exceeded the Federal Standard (≥ 9.5 ppm)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	1	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
069	E Sn Fernan V	100	72	54	54	60	48	36	21	18	18	16	14	15	21	10	8	3	0	5	4
072	S Coast LA Co	52	41*	31	20	8	3	4	8	1	5	4	0	1	2	0	0	0	0*	0	0
074	W Sn Fernan V	52	45	47	28	28	30	26	17	8	10	12	2	4	13	12	9	1	0	4	2
075	Pomona/Wln V 1	6	9	6	1	4	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0
076	SW Coast LA Co	83	62	62	50	67	46	44	40	58	45	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	41	33	28	(18)*	19	10	10	6	0	4	0	1	0	0	0	0	0	0*	--	--
084	S Cent LA Co	107	83	79	64	65	54	44	29	49	32	43	38	55	61	42	37	31	22	22	13
085	S Sn Gabrl V	(24)*	41	39	26	19	6	4	5	0	4	1	1	1	1	0	0	0	0	0	0
087	Central LA	64	53	36	14	16	16	9	11	0	2	2	2	4	1*	2	0	2	0	0	0
088	W Sn Gabrl V	34	27	26	21	22	19	14	10	0	5	2	3	4	0	2	1	0	0	0	0
089	Sta Clarita V	0	2	0	0	--	--	--	--	--	--	--	--	--	0*	0	0	0	0	0	0
091	NW Coast LA Co	53	33	19*	27	34	21	19	11	7	0	0	0	0	0	0	0	0	0	0	0
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	16	15	25	24	10	7	7	3	5	0
096	Antelope V**	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORANGE COUNTY:																					
3176	Cent Orange Co	60	30	21	31	44	17	1	4	4	3	1	0	5	6	2	0	0	0	0	0
3177	N Orange Co	70*	50	17	18	(19)*	10	10	8	1	6	2	3	3	7	1	0	0	0	0	0
3186	Saddleback V	--	--	--	--	--	(0)*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3195	N Coast Orange	55	15	7	16	6	5	2	1	1	5	3	0	2	6*	4	0	0	0	0	0
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	(0)*	0	0	(0)*	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	0
4144	Metro Riv Co 1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4146	Metro Riv Co 2	1*	--	--	--	--	--	--	0	0	0	0	0	1	0	0	0	0	0	0	0
4149	Perris Valley	(0)*	0*	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4150	San Gorgonio P**	(0)*	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4155	Norco/Corona	0	1*	0*	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	(0)*	(0)*	0*	(0)*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	(0)*	(0)*	0	0	0	(0)*	--	2	0	0	0	0	0	0	0	(0)*	--	--	--	--
5181	Cent SB Mtns	0*	0*	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	0	0*	1	1	0*	0	0	0	0	0	0	0	0	0	0	(0)*	--	--	--	--
5203	Cent SB V 2	0	2*	0	0	0	0	0	0	0	(0)*	(0)*	0	0	0	0	0	0	0	0	0
5204	E SB V	0	0	0	0	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--

() Based on less than 75 percent of possible observations
a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin
BASED ON DG SOFTWARE

TABLE A-11

Carbon Monoxide - Number of Days Maximum 8-Hour Average
Exceeded the Federal Alert Level (> 15 ppm)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
069	E Sn Fernan V	30	12	6	3	12	11	9	4	0	2	1	0	0	0	0	0	0	0	0	0
072	S Coast LA Co	0	1*	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
074	W Sn Fernan V	13	12	8	3	9	13	4	3	0	0	1	0	0	0	0	0	0	0	0	0
075	Pomona/Wln V 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
076	SW Coast LA Co	28	14	9	8	18	7	3	7	7	9	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	0	0	1	(0)*	1	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--
084	S Cent LA Co	37	21	17	12	25	10	7	7	7	10	7	7	14	13	4	3	3	0	0	0
085	S Sn Gabrl V	(0)*	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
087	Central LA	4	6	1	1	0	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0
088	W Sn Gabrl V	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
089	Sta Clarita V	0	0	0	0	--	--	--	--	--	--	--	--	--	0*	0	0	0	0	0	0
091	NW Coast LA Co	6	2	1*	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	(3)*	1	0	2	1	0	0	0	0	0	0
096	Antelope V**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORANGE COUNTY:																					
3176	Cent Orange Co	5	3	1	0	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3177	N Orange Co	38*	7	0	0	(0)*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3186	Saddleback V	--	--	--	--	--	(0)*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3195	N Coast Orange	15	0	0	1	0	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	(0)*	0	0	(0)*	0	0	0	0	0	0	0	0	0	0	0	0	0*	0*	0	0
4144	Metro Riv Co 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4146	Metro Riv Co 2	0*	--	--	--	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0
4149	Perris Valley	(0)*	0*	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4150	San Gorgonio P**	(0)*	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4155	Norco/Corona	0	0*	0*	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	(0)*	(0)*	0*	(0)*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	(0)*	(0)*	0	0	0	(0)*	--	0	0	0	0	0	0	0	0	(0)*	--	--	--	--
5181	Cent SB Mtns	0*	0*	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	0	0*	0	0	0*	0	0	0	0	0	0	0	0	0	0	(0)*	--	--	--	--
5203	Cent SB V 2	0	0*	0	0	0	0	0	0	0	(0)*	(0)*	0	0	0	0	0	0	0	0	0
5204	E SB V	0	0	0	0	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--

() Based on less than 75 percent of possible observations
a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

BASED ON DG SOFTWARE

TABLE A-12

Carbon Monoxide
Annual Maximum 8-Hour Average, ppm
1976-1995

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	10.62	10.75	8.62	9.00	8.75	9.50	6.87	6.62	4.57	4.87	5.50	6.00	6.00	5.75	5.12	5.87	4.87	4.00	4.50	6.29
069	E Sn Fernan V	26.25	21.87	16.75	15.38	24.75	21.14	16.43	16.57	12.00	16.14	16.43	12.50	11.86	13.87	13.00	10.62	10.50	8.43	10.71	12.00
072	S Coast LA Co	14.62	17.25*	16.75	12.12	12.88	11.29	11.63	12.12	10.29	15.71	10.29	9.43	10.29	10.12	9.12	9.33	8.14	6.86	8.86	6.57
074	W Sn Fernan V	20.87	20.50	24.25	19.50	19.50	21.63	19.43	16.00	11.00	14.14	15.71	12.14	13.12	12.50	14.87	13.50	9.87	9.00	10.75	10.25
075	Pomona/Wln V 1	11.72	12.62	12.00	9.62	10.75*	9.62	9.14	8.00	7.29	7.43	8.71	10.00	8.62	7.43	7.50	7.12	8.25	5.50	6.75	6.14
076	SW Coast LA Co	25.25	20.38	24.25	21.37	21.63	19.17	19.17	18.37	19.71	24.00	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	14.37	13.62	15.50	14.13*	15.75	13.71	12.71	13.57	9.43	14.57	8.71	9.71	7.29	8.75	9.00	7.50	9.37	5.86	7.71*	--
084	S Cent LA Co	23.25	27.37	21.12	23.37	25.75*	25.25	21.25	20.86	18.86	27.71	19.71	19.57	27.50	21.75	16.75	17.37	18.75	14.63	18.10	13.86
085	S Sn Gabrl V	14.87*	14.75	18.25	12.12	14.50	11.86	11.86	10.86	8.71	13.14	10.71	10.00	9.86	10.71	9.37	9.14	8.62	6.43	9.29	7.86
087	Central LA	17.00	21.25	15.38	15.71	14.00	14.87	11.87	13.14	9.14	9.86	11.57	10.86	11.43	9.75*	9.87	9.00	9.50	6.75	8.43	8.37
088	W Sn Gabrl V	12.37	16.63	13.25	12.50	13.62	11.75	12.86	12.29	8.00	11.29	10.14	11.29	10.62	8.37	10.00	9.50	7.25	6.25	8.50	9.12
089	Sta Clarita V	6.75	10.75	5.83	6.37	4.50*	--	--	--	--	--	--	--	--	5.43*	4.57	5.12	3.71	3.86	3.86	4.12
091	NW Coast LA Co	17.25	16.12	15.50*	19.25	16.25	14.75	14.57	12.86	11.57	10.71	8.57	7.50	8.57	8.00	8.00	6.12	5.87	5.43	6.00	5.62
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	15.00	14.13	15.86	16.37	12.71	11.29	12.29	10.71	12.00	8.86
096	Antelope V**	9.37	7.62	11.25	7.87	6.12	7.31	5.00	6.29	4.86	5.71	4.57	3.86	5.87	7.12	8.25	7.12	5.37	5.88	5.50	4.87
108	Pomona/Wln V 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.87	5.57
ORANGE COUNTY:																					
3176	Cent Orange Co	24.75	15.87	15.50	13.75	21.25	13.37	9.57	10.86	14.43	17.00	9.71	8.71	12.00	12.12	11.71	8.62	9.37	7.71	8.62	8.00
3177	N Orange Co	24.00*	21.63	13.50	13.00	13.75*	13.00	11.86	11.71	9.57	14.00	10.29	10.57	9.86	10.71	9.57	8.00	9.14	6.00	8.75	6.62
3186	Saddleback V	--	--	--	--	--	7.00*	5.25	5.71	6.14	7.71	4.86	6.29	5.12	5.12	5.62	4.75	7.25	4.13	5.37	4.00
3195	N Coast Orange	20.62	12.37	12.75	15.87	13.87	11.71	10.38	10.57	9.57	13.29	10.43	8.43	11.57	12.71*	10.71	8.14	9.14	7.33	7.86	6.57
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	3.12*	3.50	3.12	3.00	3.62	3.75	2.62	2.75	2.14	2.57	3.57	2.86	2.14	2.87	2.25	2.50	2.43*	2.00	1.87	1.50
4144	Metro Riv Co 1	8.62	9.50	7.62	8.12	7.37	7.50	6.37	6.29	6.25	5.71	6.00	6.14	6.75	10.25	6.29	7.43	5.25	7.13	5.75	5.71
4146	Metro Riv Co 2	9.50*	--	--	--	--	--	--	7.87	8.87	9.12	8.29	7.62	10.00	8.50	7.25	6.87	6.12	6.25	7.25	6.50
4149	Perris Valley	7.62*	6.50*	5.12	5.00	4.75*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4150	San Gorgonio P**	4.62*	4.75	3.12	5.00	2.12*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4155	Norco/Corona	8.00	11.12*	7.50*	6.62	9.25*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	7.12*	6.00*	6.50*	4.75*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	6.75*	5.37*	6.37	6.25	9.00	6.57*	1.92*	12.50	5.57	6.33	6.57	5.14	5.00	5.37	6.57	4.62*	--	--	--	--
5181	Cent SB Mtns	5.62*	5.87*	6.75	6.25	4.12*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	7.25	8.37*	9.75	9.75	8.50*	7.62	4.43*	5.12	4.43	4.00	5.86	4.00	5.62	5.75	4.86	4.37*	--	--	--	--
5203	Cent SB V 2	9.25	12.12*	8.50	7.62	8.12	6.00	6.86	5.43	5.14	5.29	6.71*	6.71	7.57	8.12	6.00	7.00	5.87	6.00	6.50	6.25
5204	E SB V	9.12	8.37	6.37	6.75	4.37	4.87	3.00	3.00	--	--	--	--	--	--	--	--	--	--	--	--

a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

TABLE A-13

Carbon Monoxide - Mean Daily Maximum 1-Hour Concentration
For Period January, February, October, November and December, ppm

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	5.79	5.41	4.64	4.59	4.81	4.62	3.00	3.10	2.86	2.87	3.01	2.95	2.84	2.90	2.57	3.21	2.38	2.28	2.60	2.79
069	E Sn Fernan V	13.85	12.21	11.03	10.42	10.82	10.45	9.24	8.68	8.38	8.27	8.20	7.10	7.44	8.06	7.31	6.84	6.17	5.50	5.80	5.56
072	S Coast LA Co	10.63	9.99	9.24	8.40	6.97	5.40	6.42	6.36	6.75	6.11	6.61	5.98	5.49	5.97	5.86	5.48	5.05	4.38	5.00	3.49
074	W Sn Fernan V	11.04	10.61	10.23	9.42	8.82	9.42	8.44	7.66	7.11	6.37	7.44	6.47	5.81	6.44	6.79	6.22	4.92	5.01	5.30	4.39
075	Pomona/Wln V 1	7.84	8.01	7.80	7.41	7.35	6.80	5.83	5.79	5.73	5.87	5.91	6.20	6.33	6.44	5.95	5.78	5.34	4.43	4.80	3.89
076	SW Coast LA Co	14.65	12.36	11.03	11.59	12.49	11.20	11.02	10.82	12.59	11.40	11.47a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	10.02	9.59	9.23	8.82	8.41	7.60	7.04	6.79	6.85	6.17	6.20	6.05	5.60	6.00	5.34	5.15	4.74	4.17	--	--
084	S Cent LA Co	16.05	13.77	12.20	12.23	12.44	11.20	11.04	9.55	11.69	10.52	11.20	11.03	11.87	12.08	10.87	10.24	9.84	8.31	9.50	7.17
085	S Sn Gabrl V	--	9.84	9.26	8.42	8.03	6.41	6.42	6.26	6.30	6.22	6.15	5.78	6.00	6.73	6.19	6.00	5.46	4.62	5.20	4.47
087	Central LA	11.84	11.19	9.62	8.18	7.41	7.40	6.81	6.80	6.83	6.24	6.38	5.94	6.34	6.24	4.98	6.29	5.63	4.54	5.20	4.80
088	W Sn Gabrl V	10.83	9.81	8.64	8.61	8.62	8.19	7.05	6.64	5.83	6.10	6.12	5.60	6.12	6.08	5.21	5.41	4.63	4.17	4.80	4.50
089	Sta Clarita V	5.22	5.40	5.22	5.41	--	--	--	--	--	--	--	--	--	4.52	4.04	3.71	3.17	3.15	3.40	3.05
091	NW Coast LA Co	11.61	9.99	--	9.01	9.02	8.41	8.43	7.42	7.51	7.32	4.85	4.52	4.84	5.01	4.24	4.30	3.62	3.39	3.50	3.02
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	8.78	8.08	7.96	8.52	7.64	7.03	7.07	6.12	6.60	4.97
096	Antelope V**	4.99	4.60	5.21	4.81	4.20	3.21	2.81	3.14	3.41	3.99	3.57	3.37	3.42	3.87	4.59	4.58	4.01	3.49	3.50	3.21
ORANGE COUNTY:																					
3176	Cent Orange Co	10.79	9.40	7.81	9.01	10.02	6.42	5.22	5.19	5.67	5.35	6.08	5.22	5.49	5.83	5.58	5.51	4.75	4.03	4.50	3.92
3177	N Orange Co	--	11.41	8.62	8.40	8.50	7.60	7.54	7.50	7.83	7.69	8.09	7.81	7.97	8.79	7.33	6.61	6.39	5.48	6.10	4.57
3186	Saddleback V	--	--	--	--	--	--	3.02	3.04	3.28	3.45	3.47	3.64	3.63	3.71	3.83	3.96	3.76	3.36	3.40	2.67
3195	N Coast Orange	11.43	7.78	7.41	8.01	6.21	6.02	5.61	5.22	5.61	5.28	5.60	5.38	5.06	5.03	5.52	4.67	4.63	4.01	4.30	3.13
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	3.00	2.61	2.62	2.41	2.61	2.39	2.00	1.97	1.80	2.20	2.19	1.85	1.92	1.89	1.95	1.88	1.58	1.46	1.30	1.38
4144	Metro Riv Co 1	5.36	6.00	5.19	4.39	4.19	3.61	3.62	3.53	3.84	3.56	3.86	4.08	3.99	4.12	3.86	3.75	3.16	3.20	3.50	3.30
4146	Riverside	--	--	--	--	--	--	--	6.03	6.68	6.33	7.10	6.20	5.85	6.02	5.89	5.57	5.08	4.59	4.80	4.43
4149	Perris Valley	5.18	5.00	3.39	3.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4150	San Gorgonio P**	2.67	2.80	2.00	2.21	2.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4155	Norco/Corona	4.40	4.01	4.02	3.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	5.33	5.03	4.98	5.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	--	--	4.81	4.42	4.61	--	--	4.23	3.87	3.85	3.60	3.58	3.70	3.76	3.87	3.74*	--	--	--	--
5181	Cent SB Mtns	4.00	4.21	3.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5204	E SB V	7.24	6.61	4.81	4.40	2.39	2.00	2.00	2.12	--	--	--	--	--	--	--	--	--	--	--	--
5203	Cent SB V 2	4.59	6.42	5.43	4.41	4.80	4.40	4.01	3.61	4.08	3.71	4.97*	4.65	4.75	4.76	4.23	3.88	3.17	3.12	3.20	3.37
5197	Cent SB V 1	3.39	3.58	5.04	6.54	4.74	2.58	2.26	2.68	2.62	2.50	2.48	2.62	2.63	3.03	3.02	2.84*	--	--	--	--

a) Station relocated in 1986.
* Incomplete data.
** Salton Sea or Mojave Desert Air Basin

TABLE A-14

1995 Air Quality - PM_{10}

Source/Receptor Area No.	Location	Station No.	Suspended Particulates PM_{10} [e] No. Days of Data	Max. Conc. in μg/m³ 24-hour	No. (%) Samples Exceeding Standard: Federal >150 μg/m³ 24-hour	No. (%) Samples Exceeding Standard: State >50 μg/m³ 24-hour	Annual Averages [g]: AAM Conc. μg/m³	Annual Averages [g]: AGM Conc. μg/m³
LOS ANGELES COUNTY								
1	Central LA	087	60	141	0	14(23.3)	42.8	36.4
2	NW Coast LA Co	091	--	--	--	--	--	
3	SW Coast LA Co	094	58	136	0	8(13.8)	36.2	31.2
4	S Coast LA Co	072	59	146	0	11(18.6)	38.7	32.3
6	W Sn Fernan V	074	--	--	--	--	--	
7	E Sn Fernan V	069	59	135	0	15(25.4)	42.2	37.2
8	W Sn Gabrl V	088	--	--	--	--	--	
9	E Sn Gabrl V	060/591	60	157	1(1.7)	24(40.0)	49.1	40.8
10	Pomona/Wln V	075/108	61	177	3(4.9)	19(31.1)	46.0	36.6
11	S Sn Gabrl V	085	--	--	--	--	--	
12	S Cent LA Co	084	--	--	--	--	--	
13	Sta Clarita V	089	61	87	0	13(21.3)	37.0	31.2
14	Antelope V**	096	54*	61*	0*	3(5.6)*	25.6*	22.6*
ORANGE COUNTY								
16	N Orange Co	3177	--	--	--	--	--	--
17	Cent Orange Co	3176	60	172	1(1.7)	14(23.3)	43.5	35.9
18	N Coast Orange	3195	--	--	--	--	--	--
19	Saddleback V	3186	60	122	0	11(18.3)	37.6	32.0
RIVERSIDE COUNTY								
22	Norco/Corona	4155	60	177	2(3.3)	28(46.7)	54.2	44.6
23	Metro Riv Co	4144/4146	61	219	4(6.6)	38(62.3)	69.0	51.8
24	Perris Valley	4149	60	145	0	23(38.3)	46.7	36.9
25	Lk Elsinore	4158	--	--	--	--	--	--
26	Temecula V	4163	--	--	--	--	--	--
28	Hemet/Sn Jcnto	4141	--	--	--	--	--	--
29	San Gorgonio P**	4150	61	138	0	7(11.5)	30.1	24.5
30	Coachella V**	4137/4157	61	199	1(1.6)	27(44.3)	52.0	47.2
SAN BERNARDINO COUNTY								
32	NW SB V	5175	--	--	--	--	--	--
33	SW SB V	5171	61	167	3(4.9)	31(50.8)	54.0	44.2
34	Cent SB V	5197/5203	61	178	2(3.3)	35(57.4)	61.0	50.6
35	E SB V	5204	59	172	1(1.7)	24(40.7)	48.4	37.4
37	Cent SB Mtns	5181	59	53	0	1(1.7)	20.4	17.6

Areas 9, 10, 23, 30 and 34 have two monitoring stations each. Values shown are the highest recorded at either station.

μg/m3 - Micrograms per cublic meter of air.

AAM - Annual Arithmetic Mean. AGM - Annual Geometric Mean. -- - Pollutant not monitored.

* - Less than 12 full months of data. May not be representative.

** - Salton Sea or Mojave Desert Air Basin.

e) - PM_{10} samples were collected every 6 days using the size-selective inlet high volume sampler with quartz filter media.
(PM_{10} refers to the finer suspended particles, consisting of particles with diameter less than approximately 10 micrometers.)

g) - Federal PM_{10} standard is AAM > 50 $\mu g/m^3$; state standard is AGM > 30 $\mu g/m^3$.

TABLE A-15

Suspended Particulates (PM_{10})
Annual Arithmetic Mean, $\mu g/m^3$
1985-1995

STN#	LOCATION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:												
060	E Sn Gabrl V 1	67	61	68	63	61	55	66	47	43	44	49
069	E Sn Fernan V	70	63	60	62	65	52	55	49	45	38	42
072	S Coast LA Co	55	56	50	52	51	44	40*	39	37	40	39
074	W Sn Fernan V	--	--	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	--	--	--	--	--	--	--	--	--	--	--
085	S Sn Gabrl V	--	--	--	--	--	--	--	--	--	--	--
087	Central LA	70*	59	57	58	61	53	57	48	47	45	43
088	Pasadena	--	--	--	--	--	--	--	--	--	--	--
089	Sta Clarita V	--	--	--	--	54*	43	47	35	33	36	37
091	NW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	50	41	39	33*	37	36	36
096	Antelope V**	--	--	--	--	47	53	57	32	35	31*	26
ORANGE COUNTY:												
3176	Cent Orange Co	--	--	--	--	--	49	45	40	38	37	44
3177	N Orange Co	--	--	--	--	--	--	--	--	--	--	--
3186	Saddleback V	47	37	40	38	42	43	37	34	34	33	38
3190	Cent Orange Co 2	56	48	49	46	46	--	--	--	--	--	--
3195	N Coast Orange	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:												
4137	Coachella V 1**	--	--	33	29	45	35	43	30	27	28	27
4144	Metro Riv Co 1	96	86	90	95	94	78	76	63	72	66	69
4146	Metro Riv Co 2	--	--	--	--	--	--	--	--	--	--	--
4149	Perris Valley	--	--	49*	59	61	59	49	45	50	45	47
4150	San Gorgonio P**	51	41	44	42	47	35	38	34*	33	35	30
4155	Norco/Corona	--	--	--	--	--	--	--	--	53	53	54
4157	Coachella V 2**	68	50	51	48	90	79	69	43	46	49	52
4163	Temecula V	--	--	--	--	--	--	38*	31	27	22*	--
SAN BERNARDINO COUNTY:												
5171	SW SB V	74	76	70	78	79	72	68	79	58	50	54
5175	NW SB V	--	--	--	--	--	--	--	--	--	--	--
5181	Cent SB Mtns	--	--	--	--	39	37	39*	33*	31*	26	20
5197	Cent SB V 1	74*	76	74	81	77	78	63	56*	57	60	61
5203	Cent SB V 2	--	85*	70	80	81	65	61	57	56	54	57
5204	E SB V	--	--	--	--	--	--	--	--	45*	47	48

* Less than 12 full months of data

** Salton Sea or Mojave Desert Air Basin

TABLE A-16

Suspended Particulates (PM_{10})
Annual Geometric Mean, $\mu g/m^3$
1985-1995

STN#	LOCATION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:												
060	E Sn Gabrl V 1	59	54	59	56	54	48	60	40	36	38	41
069	E Sn Fernan V	65	57	54	57	60	48	49	42	39	34	37
072	S Coast LA Co	52	51	46	47	46	41	37*	37	34	37	32
074	W Sn Fernan V	--	--	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	--	--	--	--	--	--	--	--	--	--	--
085	S Sn Gabrl V	--	--	--	--	--	--	--	--	--	--	--
087	Central LA	66*	54	51	53	56	48	51	44	43	41	36
088	Pasadena	--	--	--	--	--	--	--	--	--	--	--
089	Sta Clarita V	--	--	--	--	49*	39	43	31	28	32	31
091	NW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	45	38	35	30*	33	33	31
096	Antelope V**	--	--	--	--	43	24	38	29	30	28*	23
ORANGE COUNTY:												
3176	Cent Orange Co	--	--	--	--	--	43	40	37	34	34	36
3177	N Orange Co	--	--	--	--	--	--	--	--	--	--	--
3186	Saddleback V	43	34	36	35	38	40	34	32	30	30	32
3190	Cent Orange Co 2	52	44	42	40	42	--	--	--	--	--	--
3195	N Coast Orange	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:												
4137	Coachella V 1**	--	--	24*	24	36	30	37	24	24	24	24
4144	Metro Riv Co 1	81	74	73	81	81	67	65	52	58	56	52
4146	Metro Riv Co 2	--	--	--	--	--	--	--	--	--	--	--
4149	Perris Valley	--	--	32*	52	52	50	43	38	41	39	37
4150	San Gorgonio P**	40*	33	34	34	37	29	31	29*	26	27	25
4155	Norco/Corona	--	--	--	--	--	--	--	--	44	45	45
4157	Coachella V 2**	55	46	44	43	66	65	61	39	41	45	47
4163	Temecula V	--	--	--	--	--	--	36*	28	24	19*	--
SAN BERNARDINO COUNTY:												
5171	SW SB V	65	65	60	67	70	61	60	62	37	45	44
5175	NW SB V	--	--	--	--	--	--	--	--	--	--	--
5181	Cent SB Mtns	--	--	--	--	36	31	35*	30*	25*	22	18
5197	Cent SB V 1	63*	63	58	67	68	63	58	49*	46	53	51
5203	Cent SB V 2	--	74*	55	67	69	55	52	49	48	46	48
5204	E SB V	--	--	--	--	--	--	--	--	35*	38	37

* Less than 12 full months of data

** Salton Sea or Mojave Desert Air Basin

TABLE A-17

Suspended Particulates (PM_{10}) - Percent of Sampling Days
Exceeding State Standard (50 μg/m^3)
And Federal Standard (150 μg/m^3),
1985-1995

STN#	LOCATION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:												
060	E Sn Gabrl V 1	68/0	61/4	64/3	67/0	59/2	50/0	68/0	39/0	32/0	40/0	40/2
069	E Sn Fernan V	77/2	67/3	61/0	68/0	69/0	47/2	50/0	31/3	36/0	18/0	25/0
072	S Coast LA Co	58/0	40/0	33/0	40/0	44/0	24/0	24/0*	19/0	20/0	18/0	19/0
074	W Sn Fernan V	--	--	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	--	--	--	--	--	--	--	--	--	--	--
085	S Sn Gabrl V	--	--	--	--	--	--	--	--	--	--	--
087	Central LA	85/0*	66/2	62/2	57/0	57/0	52/2	54/2	36/0	43/0	33/0	23/0
088	Pasadena	--	--	--	--	--	--	--	--	--	--	--
089	Sta Clarita V	--	--	--	--	48/0*	26/0	42/0	13/0	15/0	22/0	21/0
091	NW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	44/0	28/0	23/0	9/0*	15/0	18/0	14/0
096	Antelope V**	--	--	--	--	45/0	38/3	19/5	9/0	15/0	6/0*	6/0
ORANGE COUNTY:												
3176	Cent Orange Co	--	--	--	--	--	34/2	24/0	20/0	21/0	18/0	23/2
3177	N Orange Co	--	--	--	--	--	--	--	--	--	--	--
3186	Saddleback V	37/0	8/0	25/0	18/0	33/0	29/0	15/0	8/0	12/0	12/0	18/0
3190	Cent Orange Co 2	57/0	33/0	36/2	26/0	38/0	--	--	--	--	--	--
3195	N Coast Orange	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:												
4137	Coachella V 1**	--	--	--	13/0	28/3	15/0	25/2	7/2	2/0	3/0	4/0
4144	Metro Riv Co 1	75/18	79/8	77/12	84/12	84/12	75/5	68/3	64/0	69/7	67/2	62/7
4146	Metro Riv Co 2	--	--	--	--	--	--	--	--	--	--	--
4149	Perris Valley	--	--	33/0*	63/2	66/2	53/5	43/0	41/0	45/0	43/0	38/0
4150	San Gorgonio P**	50/0	33/0	36/2	30/0	33/3	20/0	30/0	17/0*	18/0	23/0	12/0
4155	Norco/Corona	--	--	--	--	--	--	--	--	51/2	58/0	47/3
4157	Coachella V 2**	67/5	45/0	41/0	36/0	67/7	70/7	63/5	31/0	41/0	38/0	44/2
4163	Temecula V	--	--	--	--	--	--	21/0*	4/0	3/0	0/0*	--
SAN BERNARDINO COUNTY:												
5171	SW SB V	70/2	74/9	68/2	78/3	80/7	63/7	67/2	66/3	62/0	44/0	51/5
5175	NW SB V	--	--	--	--	--	--	--	--	--	--	--
5181	Cent SB Mtns	--	--	--	--	22/0	19/0	13/0*	8/0*	4/0	5/0	2/0
5197	Cent SB V 1	60/7*	68/7	63/5	77/7	77/3	73/5	65/0	59/0*	57/0	63/0	57/3
5204	E SB V	--	--	--	--	--	--	--	--	46/0	41/0	41/2
5203	Cent SB V 2	--	76/5*	59/3	71/5	75/5	58/3	68/2	60/0	63/0	51/0	53/0

* Less than 12 full months of data

** Saltom Sea or Mojave Desert Air Basin

TABLE A-18

Suspended Particulates (PM_{10})

Annual Maximum 24-Hour Average, $\mu g/m^3$

1985-1995

STN# LOCATION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:											
060 E Sn Gabrl V 1	149	183	188	127	172	127	137	107	101	127	157
069 E Sn Fernan V	165	211	147	138	133	161	133	222	93	114	135
072 S Coast LA Co	106	136	113	149	119	119	92*	67	86	97	146
074 W Sn Fernan V	--	--	--	--	--	--	--	--	--	--	--
075 Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--
076 SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
080 SE LA Co	--	--	--	--	--	--	--	--	--	--	--
084 S Cent LA Co	--	--	--	--	--	--	--	--	--	--	--
085 S Sn Gabrl V	--	--	--	--	--	--	--	--	--	--	--
087 Central LA	146*	178	158	130	137	152	151	137	104	122	141
088 Pasadena	--	--	--	--	--	--	--	--	--	--	--
089 Sta Clarita V	--	--	--	--	100*	93	81	84	75	66	87
091 NW Coast LA Co	--	--	--	--	--	--	--	--	--	--	--
094 SW Coast LA Co	--	--	--	--	133	127	79	67*	91	81	136
096 Antelope V**	--	--	--	--	110	342	780	68	70	97*	61
ORANGE COUNTY:											
3176 Cent Orange Co	--	--	--	--	--	158	146	88	92	106	172
3177 N Orange Co	--	--	--	--	--	--	--	--	--	--	--
3186 Saddleback V	100	109	107	97	88	88	94	83	115	91	122
3190 Cent Orange Co 2	144	124	163	132	138	--	--	--	--	--	--
3195 N Coast Orange	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:											
4137 Coachella V 1**	--	--	121*	77	292	83	197	175	58	55	68
4144 Metro Riv Co 1	208	294	219	252	252	207	179	126	231	161	219
4146 Riverside	--	--	--	--	--	--	--	--	--	--	--
4149 Perris Valley	--	--	187*	164	187	250	113	115	131	112	145
4150 San Gorgonio P**	135	135	163	113	194	89	87	89*	87	96	138
4155 Norco/Corona	--	--	--	--	--	--	--	--	164	139	177
4157 Coachella V 2**	358	111	115	115	712	520	340	117	125	97	199
4163 Temecula V	--	--	--	--	--	--	66*	88	105	48*	--
SAN BERNARDINO COUNTY:											
5171 SW SB V	157	272	182	192	254	185	158	649	138	138	167
5175 NW SB V	--	--	--	--	--	--	--	--	--	--	--
5181 Cent SB Mtns	--	--	--	--	87	88	105*	62*	73*	67	53
5197 Cent SB V 1	154*	275	203	287	227	475	127	105*	143	133	178
5203 Cent SB V 2	--	285*	211	289	271	235	163	136	139	147	148
5204 E SB V	--	--	--	--	--	--	--	--	109*	138	172

* Less than 12 full months of data

** Salton Sea or Mojave Desert Air Basin

TABLE A-19

1995 Air Quality - Nitrogen Dioxide

Source/Receptor Area No.	Location	Station No.	Nitrogen Dioxide: No. Days of Data	Max. Conc. in ppm 1-hour	Average Compared to Federal Standard[b)]: AAM in ppm	Average Compared to Federal Standard[b)]: % above std.	No. Days Std. Exc'd State: > .25 ppm 1-hour
LOS ANGELES COUNTY							
1	Central LA	087	349*	.24*	.0450*	.0*	0*
2	NW Coast LA Co	091	344*	.20*	.0278*	.0*	0*
3	SW Coast LA Co	094	365	.18	.0305	.0	0
4	S Coast LA Co	072	359	.21	.0367	.0	0
6	W Sn Fernan V	074	360	.14	.0317	.0	0
7	E Sn Fernan V	069	356	.18	.0454	.0	0
8	W Sn Gabrl V	088	365	.22	.0376	.0	0
9	E Sn Gabrl V	060/591	365	.22	.0464	.0	0
10	Pomona/Wln V	075/108	362	.21	.0456	.0	0
11	S Sn Gabrl V	085	359	.23	.0456	.0	0
12	S Cent LA Co	084	362	.21	.0463	.0	0
13	Sta Clarita V	089	355	.16	.0305	.0	0
14	Antelope V**	096	360	.14	.0194	.0	0
ORANGE COUNTY							
16	N Orange Co	3177	362	.20	.0391	.0	0
17	Cent Orange Co	3176	358	.18	.0371	.0	0
18	N Coast Orange	3195	365	.18	.0239	.0	0
19	Saddleback V	3186	--	--	--	--	--
RIVERSIDE COUNTY							
22	Norco/Corona	4155	--	--	--	--	--
23	Metro Riv Co	4144/4146	362	.15	.0306	.0	0
24	Perris Valley	4149	--	--	--	--	--
25	Lk Elsinore	4158	364	.13	.0208	.0	0
26	Temecula V	4163	--	--	--	--	--
28	Hemet/Sn Jcnto	4141	--	--	--	--	--
29	San Gorgonio P**	4150	--	--	--	--	--
30	Coachella V**	4137/4157	365	.09	.0223	.0	0
SAN BERNARDINO COUNTY							
32	NW SB V	5175	365	.20	.0464	.0	0
33	SW SB V	5171	--	--	--	--	--
34	Cent SB V	5197/5203	349*	.17*	.0424*	.0*	0*
35	E SB V	5204	--	--	--	--	--
37	Cent SB Mtns	5181	--	--	--	--	--

ABBREVIATIONS USED IN AREA NAMES: LA = Los Angeles SB = San Bernardino Riv = Riverside Co = County
N = North S = South W = West E = East
V = Valley Lk = Lake P = Pass Cent = Central

Areas 9, 10, 23, 30 and 34 have two monitoring stations each. Values shown are the highest recorded at either station.
"No. Days of Data" for the areas with two stations is based on the annual average (if reported) or the number of days above state standard.
ppm - Parts Per Million parts of air, by volume. AAM - Annual Arithmetic Mean. -- - Pollutant not monitored.
* - Less than 12 full months of data. May not be representative.
** - Salton Sea or Mojave Desert Air Basin.

b) - The federal standard is annual arithmetic mean NO_2 greater than 0.0534 ppm.

TABLE A-20

Nitrogen Dioxide - Annual Average of All Hours, pphm, 1976-1995[a)]
(To Be Compared to Federal Standard of 5.34 pphm, Annual Average of All Hours)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	4.71	5.77	5.29	3.64	3.71	5.03	4.94	4.70	4.35	5.02	4.96	4.98	5.30	5.11	4.10	4.50	4.03	4.00	4.30	4.64
069	E Sn Fernan V	6.31	6.58	7.18	6.86	7.06	7.13	6.15	5.57	5.60	5.71	5.74	5.16	5.28	5.07	4.79	4.68	5.01	4.40	4.97	4.54
072	S Coast LA Co	6.50	6.34	5.81	6.04*	4.87*	5.38*	5.12	4.56	4.98	4.99	5.29	4.32	4.75	4.28	3.93	4.11	3.89	3.57	3.46	3.67
074	W Sn Fernan V	4.88	5.19	4.59	5.29	4.99	4.90*	4.50	4.41	3.89	3.85	2.77	3.19	3.78*	3.90	3.40	3.99	3.17	3.06	3.39	3.17
075	Pomona/Wln V 1	5.98	6.30	6.20	5.18	5.03	5.06*	5.50	5.20	5.16	5.41	5.58	5.47	5.61	5.71	5.55	5.50	5.07	4.99	4.80	4.56
076	SW Coast LA Co	6.36	6.08	5.49	5.75	5.79	5.90	5.27	4.44	4.61	4.32	c)	--	--	--	--	--	--	--	--	--
080	SE LA Co	6.36	6.49	6.13	6.04*	5.10*	5.48	5.35	5.16	4.48	4.79	5.04	4.86	4.98	4.44	4.28	3.94	3.76	3.76	--	--
084	S Cent LA Co	4.67	5.70	4.68	5.39	5.00	5.74	4.96	4.62	5.45	5.23	5.28	4.29	4.78	4.59	4.08	4.37	4.55	4.09	4.99	4.63
085	S Sn Gabrl V	7.22*	7.49	6.61	6.33*	5.87	6.06	5.79	5.04	4.88	5.32	5.29	4.89	5.39	5.47	4.99	4.69	4.43	4.28	4.49	4.56
087	Central LA	6.40	7.73	6.64	5.82*	6.10	6.68	6.02	5.88	5.67	5.99	6.12	5.37	6.13	5.53	4.67	4.93	4.04	3.32	4.76	4.50
088	W Sn Gabrl V	6.84	7.80	7.34	6.03	5.53	5.78	5.55*	4.84	4.85	5.01	5.13	4.20	5.00	5.31	4.74	5.02	4.23	3.90	4.28	3.75
089	Sta Clarita V	2.39	3.10	3.18	2.18	--	--	--	--	--	--	--	--	--	--	3.16	3.24	2.76	2.89	3.27	3.05
091	NW Coast LA Co	6.68	7.00	5.59*	6.42	5.75	5.37	5.22	4.98	4.36	3.84	4.21	3.78	3.43	3.15	3.24	2.78	2.84	2.87	2.96	2.78
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	4.20	3.53	3.58	3.74	3.39	2.98*	3.20	3.00	3.22	3.05
096	Antelope V**	1.28	--	1.51	1.44	1.23	1.26	1.54*	1.50	1.78	1.46	1.41	1.61*	1.62	1.86	2.00	1.45	1.69	1.98	1.82	1.93
108	Pomona/Wln V 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.58	4.53
591	E Sn Gabrl V 2	--	--	--	--	--	--	--	--	--	--	--	3.77*	4.39	3.89	3.77	4.30	3.53	3.39	3.62	3.80
ORANGE COUNTY:																					
3176	Cent Orange Co	4.81	5.04*	4.33*	4.82	5.20	4.97	4.64	4.46	4.41	4.30	4.46	4.21	4.58	4.72	4.69	4.48	3.94	3.54	3.80	3.71
3177	N Orange Co	4.32	5.43*	5.31	5.30*	5.13	5.26	4.78	4.55	4.63	4.26	4.21	3.82	4.24	4.28	4.47	4.26	3.79	3.87	4.14	3.91
3195	N Coast Orange	2.39	2.47	2.52	2.70	2.50	3.24	3.11	2.80	2.58	2.48	2.60	2.81	2.68*	4.63*	2.72	2.60	2.49	2.20	2.44	2.39
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	--	1.84*	1.89	1.87	2.45	2.73	1.43	1.96	1.86*	1.90	2.20	2.39	2.06	2.08	2.10*	1.95	2.19	2.23
4144	Metro Riv Co 1	3.17	4.19*	3.13*	3.25*	3.42	3.63	3.36*	3.44	3.54	3.53	3.16	2.69	3.68*	3.64	3.36	3.51	3.04	2.98	3.20	3.06
4149	Perris Valley	--	--	--	--	--	--	--	--	--	--	--	--	3.10*	3.22	2.82	--	--	--	--	--
4157	Coachella V 2**	1.99*	1.75	1.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4158	Lake Elsinore	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.12	2.08
SAN BERNARDINO COUNTY:																					
5175	NW SB V	4.07*	6.10*	4.42*	6.11*	4.88	4.90*	--	4.20	4.05	3.98	4.23	4.72	4.72	4.48	4.11	4.28	3.96	4.21	4.15	4.64
5165	E SB V	2.17*	2.78	2.45	1.83*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5203	Cent SB V 2	2.15	2.67	2.57*	3.16*	4.79	4.86	4.33	3.60	4.00	3.79*	4.37*	4.30	4.21	4.09	3.93	3.55	3.56	3.76	4.11	4.04
5197	Cent SB V 1	3.53*	3.40*	4.25*	3.39*	3.90*	4.24*	3.68*	3.36	3.78	3.73	4.18	3.83	3.69	3.63	3.43	3.77	3.44	3.72	4.03	4.24

a) Data prior to 1980 have been multiplied by an adjustment factor of 0.877 to be made comparable to 1980-84 data.
b) 1982 annual averages are based on the arithmetic mean of the monthly averages and may differ slightly from the annual average of all hours.
c) Station relocated in 1986.
* Less than 12 full months of data.
** Salton Sea or Mojave Desert Air Basin.

TABLE A-21

Nitrogen Dioxide - Number of Days 1-Hour Average
Exceeded the State Standard (> .25 ppm), 1976-1995

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	1	7	8	1	1	3	3	1	0	1	0	0	0	2	0	0	0	0	0	0
069	E Sn Fernan V	4	12	26	11	22	9	1	4	0	1	1	1	2	0	0	2	0	0	0	0
072	S Coast LA Co	25	14	4	7*	4*	10*	3	3	5	3	1	1	1	1	1	2	0	0	0	0
074	W Sn Fernan V	1	5	5	3	2	0*	0	0	3	0	0	0	0*	0	0	0	0	0	0	0
075	Pomona/Wln V 1	5	7	4	2	1	4*	1	0	0	0	0	0	0	1	0	0	0	0	0	0
080	SE LA Co	7	13	8	6*	4*	10	4	4	2	3	1	0	0	1	0	0	0	0	--	--
084	S Cent LA Co	3	4	0	4	1	5	0	1	2	1	1	1	1	2	1	2	0	0	0	0
085	S Sn Gabrl V	10*	33	14	7*	6	8	2	4	0	4	1	0	0	3	2	0	1	1	0	0
087	Central LA	16	42	15	8*	15	16	8	4	0	2	6	4	6	1	3	5	1	0	0	0
088	W Sn Gabrl V	12	26	15	7	11	2	1*	3	0	1	0	0	2	2	0	2	0	0	0	0
089	Sta Clarita V	0	0	0	1	0*	--	--	--	--	--	--	--	--	0*	0	0	0	0	0	0
091	NW Coast LA Co	37	30	11*	25	16	6	4	4	3	0	0	1	1	0	0	0	0	0	0	0
076	SW Coast LA Co	6	16	6	6	2	8	3	3	1	0	a)	--	--	--	--	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	0	0	1	0	0	0*	0	0	0	0
096	Antelope V**	0	0	0	0	0	0	0*	0	0	0	0	0*	0	0	0	0	0	0	0	0
591	E Sn Gabrl V 2	--	--	--	--	--	--	--	--	--	--	0*	0	0	0	0	0	0	0	0	0
ORANGE COUNTY:																					
3176	Cent Orange Co	7	2*	1*	1	15	3	0	0	0	2	0	0	1	1	0	0	0	0	0	0
3177	N Orange Co	0	1*	3	0*	5	7	1	3	0	2	0	0	0	0	0	0	0	0	0	0
3195	N Coast Orange	4	0	2	1	2	2	1	1	0	0	0	0*	1	0*	0	0	0	0	0	0
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	--	0*	0	0	0	0	0	0	0*	0	0	0	0	0	0*	0*	0	0
4144	Metro Riv Co 1	0	0*	0*	0*	0	1	0*	0	0	0	0	0	0*	0	0	0	0	0	0	0
4149	Perris Valley	--	--	--	--	--	--	--	--	--	--	--	--	0*	0	0*	--	--	--	--	--
4157	Coachella V 2**	0*	0	0	0*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	0*	2*	0*	1*	1	0*	0*	0	0	0	0	0	0	0	0	0	0	0	0	0
5165	E SB V	0	0	0	0*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-
5197	Cent SB V 1	1*	0*	1*	0*	0*	0*	0*	0	0	0	0	0	0	0	0	0	0	0	0	0
5203	Cent SB V 2	0	0	0	0*	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0

a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

TABLE A-22

Nitrogen Dioxide
Annual Maximum 1-Hour, ppm[a)]
1976-1995

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	.27	.35	.38	.35	.27	.28	.30	.26	.16	.27	.21	.23	.24	.27	.21	.25	.15	.17	.19	.22
069	E Sn Fernan V	.33	.40	.44	.31	.35	.37	.26	.30	.21	.31	.28	.26	.26	.25	.23	.29	.19	.17	.18	.18
072	S Coast LA Co	.38	.38	.35	.41*	.31*	.37*	.30	.37	.35	.35	.26	.26	.28	.27	.27	.28	.18	.20	.20	.21
074	W Sn Fernan V	.26	.35	.46	.27	.32	.24*	.24	.23	.21	.21	.22	.15	.20*	.18	.19	.17	.17	.15	.17	.14
075	Pomona/Wln V 1	.28	.31	.32	.30	.27	.31*	.32	.21	.20	.23	.25	.22	.20	.26	.21	.22	.18	.20	.17	.18
080	SE LA Co	.46	.61	.44	.32*	.47*	.38	.30	.32	.29	.31	.28	.25	.22	.29	.23	.22	.21	.20	--	--
084	S Cent LA Co	.34	.29	.23	.32	.29	.32	.24	.27	.27	.31	.26	.26	.31	.34	.26	.26	.25	.23	.20	.21
085	S Sn Gabrl V	.46*	.39	.40	.36*	.54	.36	.29	.31	.25	.31	.26	.24	.24	.31	.27	.25	.27	.26	.24	.23
087	Central LA	.46	.53	.37	.41*	.44	.45	.41	.33	.23	.27	.33	.42	.54	.28	.28	.38	.30	.21	.22	.24
088	W Sn Gabrl V	.33	.42	.52	.32	.35	.40	.34*	.35	.21	.27	.24	.21	.27	.34	.23	.32	.22	.18	.18	.22
089	Sta Clarita V	.11	.29	.18	.25	.10*	--	--	--	--	--	--	--	--	.13*	.15	.17	.11	.13	.12	.16
091	NW Coast LA Co	.40	.49	.49*	.40	.37	.40	.39	.47	.32	.23	.24	.27	.26	.22	.20	.25	.17	.17	.16	.20
076	SW Coast LA Co	.34	.38	.34	.33	.38	.42	.34	.32	.27	.24	b)	--	--	--	--	--	-	--	-	--
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	.23	.23	.27	.24	.23	.21*	.19	.16	.22	.18
096	Antelope V**	.10	.07	.16	.09	.09	.22	.14*	.09	.11	.08	.09	.09*	.09	.08	.09	.11	.16	.11	.10	.14
108	Pomona/Wln V 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	.21
591	E Sn Gabrl V 2	--	--	--	--	--	--	--	--	--	--	.13*	.17	.20	.22	.19	.23	.16	.16	.19	.20
ORANGE COUNTY:																					
3176	Cent Orange Co	.40	.25*	.26*	.29	.43	.30	.20	.24	.24	.28	.21	.22	.28	.28	.21	.20	.21	.20	.19	.18
3177	N Orange Co	.25	.34*	.33	.21*	.42	.36	.28	.33	.25	.30	.20	.22	.24	.23	.22	.20	.17	.18	.23	.20
3195	N Coast Orange	.30	.20	.26	.25	.31	.29	.23	.27	.22	.24	.20	.19	.26*	.22*	.22	.16	.15	.14	.16	.18
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	--	.09*	.13	.09	.15	.16	.09	.08	.08*	.08	.11	.09	.09	.09	.09*	.15	.08	.09
4144	Metro Riv Co 1	.20	.24*	.19*	.18*	.20	.32	.16*	.19	.17	.16	.16	.21	.19*	.16	.16	.16	.23	.14	.18	.15
4149	Perris Valley	--	--	--	--	--	--	--	--	--	--	--	--	.14*	.14	.11*	--	--	--	--	--
4157	Coachella V 2**	.08*	.13	.11	.08*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	.11*	.26*	.24*	.26*	.35*	.19*	.20*	.25	.15	.18	.24	.20	.21	.20	.19	.21	.14	.16	.17	.20
5165	SB V	.22	.21	.18	.17*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	.26*	.20*	.26*	.16*	.25*	.19*	.18*	.16	.16	.14	.18	.18	.21	.18	.20	.19	.14	.16	.18	.17
5203	Cent SB V 2	.11	.17	.12	.20*	.25	.20	.19	.19	.20	.15*	.18*	.19	.19	.18	.20	.16	.13	.15	.16	.16

a) Data prior to 1980 have been multiplied by an adjustment factor of 0.877 to be made comparable to 1980-1992 data.
b) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

TABLE A-23

1995 Air Quality - Sulfur Dioxide

Source/Receptor Area No.	Location	Station No.	Sulfur Dioxide: No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 24-hour	Average Compared to Federal Standard [c] AAM in ppm	No. Days Std. Exc'd State >.25/ >.04 ppm 1/24-hr [d]
LOS ANGELES COUNTY							
1	Central LA	087	365	.01	.010	.0010	0/0
2	NW Coast LA Co	091	--	--	--	--	--
3	SW Coast LA Co	094	365	.06	.012	.0027	0/0
4	S Coast LA Co	072	365	.14	.018	.0023	0/0
6	W Sn Fernan V	074	--	--	--	--	--
7	E Sn Fernan V	069	365	.01	.005	.0001	0/0
8	W Sn Gabrl V	088	--	--	--	--	--
9	E Sn Gabrl V	060/591	--	--	--	--	--
10	Pomona/Wln V	075/108	--	--	--	--	--
11	S Sn Gabrl V	085	--	--	--	--	--
12	S Cent LA Co	084	362	.03	.013	.0030	0/0
13	Sta Clarita V	089	--	--	--	--	--
14	Antelope V**	096	--	--	--	--	--
ORANGE COUNTY							
16	N Orange Co	3177	365	.02	.010	.0009	0/0
17	Cent Orange Co	3176	--	--	--	--	--
18	N Coast Orange	3195	365	.02	.009	.0007	0/0
19	Saddleback V	3186	--	--	--	--	--
RIVERSIDE COUNTY							
22	Norco/Corona	4155	--	--	--	--	--
23	Metro Riv Co	4144/4146	365	.01	.006	.0001	0/0
24	Perris Valley	4149	--	--	--	--	--
25	Lk Elsinore	4158	--	--	--	--	--
26	Temecula V	4163	--	--	--	--	--
28	Hemet/Sn Jcnto	4141	--	--	--	--	--
29	San Gorgonio P**	4150	--	--	--	--	--
30	Coachella V**	4137/4157	--	--	--	--	--
SAN BERNARDINO COUNTY							
32	NW SB V	5175	--	--	--	--	--
33	SW SB V	5171	--	--	--	--	--
34	Cent SB V	5197/5203	364	.02	.010	.0006	0/0
35	E SB V	5204	--	--	--	--	--
37	Cent SB Mtns	5181	--	--	--	--	--

ABBREVIATIONS USED IN AREA NAMES: LA = Los Angeles SB = San Bernardino Riv = Riverside Co = County
N = North S = South W = West E = East
V = Valley Lk = Lake P = Pass Cent = Central

Areas 9, 10, 23, 30 and 34 have two monitoring stations each. Values shown are the highest recorded at either station.
"No. Days of Data" for the areas with two stations is based on the annual average (if reported) or the number of days above state standard.
ppm - Parts Per Million parts of air, by volume. AAM - Annual Arithmetic Mean. -- - Pollutant not monitored.
** - Salton Sea or Mojave Desert Air Basin.

c) - The federal standard is annual arithmetic mean SO_2 greater than 80 $\mu g/m^3$ (0.03 ppm). No location exceeded this standard. The other federal standards (3-hour average > 0.50 ppm, and 24-hour average > 0.14 ppm) were not exceeded either.

d) - Days maximum 1-hour average SO_2 or maximum 24-hour moving average SO_2 exceeded state standards (1-hour > 0.25 ppm/24-hour average > 0.04 ppm).

TABLE A-24

Sulfur Dioxide - Annual Average, pphm
1976-1995

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	1.02	1.03	.75	.71	.62	.32	.31	.21	.23	.29	.30	.24	.22	.17	.11*	--	--	--	--	--
069	E Sn Fernan V	.81	1.37	1.07	1.04	.67	.52	.58	.47	.52	.51	.34	.30	.22	.20	.18	.09	.10	.12	.07	.01
072	S Coast LA Co	1.51	1.45	1.33	.90	1.08	.95*	1.07	.89	.98	.81	.84	.58	.68	.46	.31	.43	.37	.36	.31	.23
074	W Sn Fernan V	.77	.95	.47	.33	.48	.44	.45	.43	.41	.25	.33	.26	.17	.18	.15*	--	--	--	--	--
075	Pomona/Wln V 1	1.02	1.41	1.16	.60	.41*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	1.70	1.78	.64	.81	1.14	1.05	1.06	.95	1.04	.74*	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	1.88	1.73	1.30	2.33*	.99*	.70*	.80	.58	.60	.43	.43	.42	.55	.36	.16	.16	.08	.07	--	--
082	Antelope V**	.57*	.45*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	1.22	1.04	.84	.64	.82	.91*	.70	.66	.84	.70*	.51	.59	.69	.42	.33	.30	.31	.23	.26	.30
085	S Sn Gabrl V	.77*	.80	.63	.76	.55	.55*	.54	.56	.70	.50	.34	.36	.48	.45	.43*	--	--	--	--	--
087	Central LA	1.94	2.01*	1.74	1.16*	1.28*	.71	.79	.61	.85	.53	.42	.43*	.41	.22	.17	.17	.15	.03	.07	.10
088	W Sn Gabrl V	1.52	1.53	1.48	1.05	.61	.38*	.47*	.35	.33	.25	.19	.28	.23	.22	.15*	--	--	--	--	--
089	Newhall	1.12	1.11	.93	.90	.49*	--	--	--	--	--	--	--	--	.09*	.09*	--	--	--	--	--
091	NW Coast LA Co	.79	.87	1.12*	.88	.66	.40	.28	.23	.27	.32	.33	.28	.22	.24	.21*	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	.50	.38	.48	.47	.35	.40	.57	.31	.22	.27
ORANGE COUNTY:																					
3176	Cent Orange Co 1	.67	.62	.45	.63	.67	.41	.56	.50	.66	.32	.32	.30	.41	.31	.18*	--	--	--	--	--
3177	N Orange Co	.61	.75	.73	.60	.80*	.53	.51*	.55	.60	.51	.50	.49	.38	.21	.11	.12	.06	.06	.09	.09
3186	Saddleback V	.12*	.14*	.14	.18*	.06*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3190	Cent Orange Co 2	.96*	.88*	.66*	.76	.90	.46*	.45	.36	.40	.30	.27	.30	.29	.27	.19	.11	.11	.08	--	--
3195	N Coast Orange	.63	.59*	.42	.42	.54	.34	.35*	.25	.29	.28	.15	.20	.18	.15*	.07	.07	.06	.05	.07	.07
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	--	.65*	.54	.07	.01	.07	--	--	--	--	--	--	--	--	--	--	--	--
4144	Metro Riv Co 1	.50	1.00*	.89	.93	.40	.13*	.17	.14	.20	.14	.07	.22	.14	.07	.03	.02	.02	.03	.02	.01
4157	Coachella V 2**	--	.01	.74	.44*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	--	--	.75	.85*	.49	.51*	.65*	.25	.16*	.08	.07	.14	.17	.14	.12*	--	--	--	--	--
5197	Cent SB V 1	2.71*	2.60*	.98*	.85	.53	.47*	.51*	.21	.11	.10	.14*	.18*	.16	.05	.01	.05	.12	.00	.02	.06
5203	Cent SB V 2	.82	1.50	1.15	1.00	.21	.09*	.15	.10	.21	.17*	.34*	.26	.18	.06	.01*	--	--	--	--	--

a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

TABLE A-25

Sulfur Dioxide
Annual Maximum 1-Hour Average, ppm
1976-1995

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	.10	.06	.05	.06	.05	.04	.06	.03	.04	.02	.03	.03	.03	.02	.03*	--	--	--	--	-
069	E Sn Fernan V	.09	.10	.06	.06	.04	.04	.09	.04	.05	.04	.02	.03	.02	.03	.02	.01	.03	.02	.03	.01
072	S Coast LA Co	.13	.13	.19	.13	.10	.14*	.09	.12	.32	.08	.07	.06	.05	.11	.05	.14	.11	.05	.04	.14
074	W Sn Fernan V	.04	.06	.05	.03	.03	.03	.03	.03	.03	.02	.02	.02	.02	.02	.02*	--	--	--	--	--
075	Pomona/Wln V 1	.06	.08	.06	.05	.03*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	.18	.30	.09	.10	.08	.07	.08	.09	.06	.06*	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	.15	.18	.10	.14*	.16*	.09*	.09	.09	.06	.05	.06	.07	.10	.04	.04	.07	.03	.03	--	--
082	Antelope V**	.02*	.02*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	.09	.12	.13	.09	.08	.09*	.06	.06	.07	.06*	.13	.06	.06	.04	.04	.05	.06	.03	.02	.03
085	S Sn Gabrl V	.05*	.08	.05	.10	.07	.05*	.05	.08	.09	.07	.03	.09	.05	.04	.04*	--	--	--	--	--
087	Central LA	.12	.09*	.09	.05*	.06*	.05	.05	.07	.07	.04	.03	.03*	.04	.03	.02	.02	.05	.01	.02	.01
088	W Sn Gabrl V	.06	.07	.06	.06	.05	.04*	.04*	.05	.03	.03	.02	.02	.03	.02	.02*	--	--	--	--	--
089	Sta Clarita V	.10	.04	.05	.05	.03*	--	--	--	--	--	--	--	--	.02*	.01*	--	--	--	--	--
091	NW Coast LA Co	.07	.05	.08*	.04	.04	.04	.03	.06	.05	.03	.02	.03	.03	.02	.02*	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	.09	.03	.15	.09	.31	.12	.15	.07	.04	.06
ORANGE COUNTY:																					
3176	Cent Orange Co 1	.11	.09	.07	.07	.08	.04	.04	.05	.08	.03	.03	.09	.06	.03	.02*	--	--	--	--	--
3177	N Orange Co	.11	.12	.10	.09	.09*	.04	.04*	.05	.04	.05	.06	.05	.05	.03	.03	.04	.02	.02	.02	.02
3186	Saddleback V	.05*	.07*	.10	.09*	.06*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3190	Cent Orange Co 2	.25*	.14*	.16*	.11	.14	.06*	.08	.05	.06	.02	.03	.04	.04	.07	.03	.03	.10	.02	--	--
3195	N Coast Orange	.13	.10*	.07	.07	.06	.08	.06*	.04	.04	.05	.02	.03	.03	.03*	.02	.04	.02	.01	.02	.02
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	--	.03*	.03	.01	.01	.01	--	--	--	--	--	--	--	--	--	--	--	--
4144	Metro Riv Co 1	.08	.12*	.08	.08	.07	.02*	.02	.02	.02	.02	.02	.04	.02	.02	.03	.02	.02	.02	.02	.01
4157	Coachella V 2**	--	.02	.04	.04*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5175	NW SB V	--	--	.10	.08*	.07	.04*	.05*	.03	.02*	.02	.01	.03	.03	.03	.01*	--	--	--	--	--
5197	Cent SB V 1	.25*	.40*	.12*	.14	.11	.11*	.14*	.06	.03	.02	.02*	.03*	.04	.03	.01	.05	.02	.01	.03	.02
5203	Cent SB V 2	.07	.35	.09	.08	.03	.02*	.02	.02	.03	.02*	.05*	.07	.02	.03	.01*	--	--	--	--	--

a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

TABLE A-26

1995 Air Quality - Sulfate

Source/ Receptor Area No.	Location	Station No.	Sulfate [f] Max. Conc. in µg/m³ 24-hour	Sulfate [f] No. (%) Samples Exceeding Standard State ≥25 µg/m³ 24-Hour
LOS ANGELES COUNTY				
1	Central LA	087	15.5	0
2	NW Coast LA Co	091	13.3*	0*
3	SW Coast LA Co	094	20.4	0
4	S Coast LA Co	072	16.9	0
6	W Sn Fernan V	074	--	--
7	E Sn Fernan V	069	13.7*	0*
8	W Sn Gabrl V	088	13.2	0
9	E Sn Gabrl V	060/591	12.9	0
10	Pomona/Wln V	075/108	--	--
11	S Sn Gabrl V	085	16.3	0
12	S Cent LA Co	084	18.8	0
13	Sta Clarita V	089	--	--
14	Antelope V**	096	--	--
ORANGE COUNTY				
16	N Orange Co	3177	--	--
17	Cent Orange Co	3176	12.8	0
18	N Coast Orange	3195	--	--
19	Saddleback V	3186	--	--
RIVERSIDE COUNTY				
22	Norco/Corona	4155	--	--
23	Metro Riv Co	4144/4146	26.3	1(1.6)
24	Perris Valley	4149	--	--
25	Lk Elsinore	4158	--	--
26	Temecula V	4163	--	--
28	Hemet/Sn Jcnto	4141	--	--
29	San Gorgonio P**	4150	--	--
30	Coachella V**	4137/4157	--	--
SAN BERNARDINO COUNTY				
32	NW SB V	5175	12.5	0
33	SW SB V	5171	--	--
34	Cent SB V	5197/5203	13.4	0
35	E SB V	5204	--	--
37	Cent SB Mtns	5181	--	--

Areas 9, 10, 23, 30 and 34 have two monitoring stations each. Values shown are the highest recorded at either station.

µg/m³ - Micrograms per cublic meter of air.

-- - Pollutant not monitored.

* - Less than 12 full months of data. May not be representative.

** - Salton Sea or Mojave Desert Air Basin.

f) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by high volume sampler method,
on glass fiber filter media. Federal TSP standard suspended by PM_{10} standard, July 1, 1987.

TABLE A-27

Sulfate - Percent of Sampling Days Exceeding the State Standard
(≥ 25 µg/m³, 24-hour Average)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	5	11	8	0	6	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0
069	E Sn Fernan V	--	--	--	--	--	--	--	--	0(3)	0	0	0	0	0	2	0	0	0	0	0
072	S Coast LA Co	--	--	--	--	10	2	2	2	0	2	2	0	2	0	0	0	0	0	0	0
074	W Sn Fernan V	2	5	7	0	5	0	5	0	0	0	0	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	11	14	6	5	11	2	3	0	2	0	b)	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
082	Antelope V**	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--
084	S Cent LA Co	5	13	7	8	12	0	3	2	0	0	0	0	2	0	2	0	0	0	0	0
085	S Sn Gabrl V	--	13	8	5	12	2	3	2	0	0	0	0	2	2	0	0	0	0	2	0
087	Central LA	7	13	7	3	8	0	4	2	2	0	0	0	2	0	2	0	0	0	0	0
088	W Sn Gabrl V	8	11	8	2	7	2	4	2	2	0	0	0	0	0	2	0	0	0	0	0
089	Sta Clarita V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
091	NW Coast LA Co	0	2	9	0	5	2	4	0	2	0	0	0	0	0	0	0	0	0	2	0
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	2	0	0	0	0	0	0	0	2	0
ORANGE COUNTY:																					
3176	Cent Orange Co 1	5	5	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3177	N Orange Co	2	5	8	3	8	2	2	0	0	0	0	--	--	--	--	--	--	--	--	--
3186	Saddleback V	--	3	2	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--
3190	Cent Orange Co 2	3	7	5	2	4	2	0	2	0	0	0	0	2	0	0	0	0	0	--	--
3195	N Coast Orange	2	5	3	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--
4144	Metro Riv Co 1	4	2	8	5	5	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4146	Metro Riv Co 2	--	--	--	--	--	--	--	2	0	0	0	0	0	0	0	0	0	0	0	0
4149	Perris Valley	--	--	--	--	--	--	--	0	0	0	0	0	0	0	0	--	--	--	--	--
4150	San Gorgonio P**	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--
4155	Norco/Corona	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5171	SW SB V	--	--	--	--	--	--	--	2	4	0	0	0	0	0	0	--	--	--	--	--
5175	NW SB V	6(11)	2	7	--	8	2	--	2	0	0	0	0	0	0	0	0	0	0	0	0
5181	Cent SB Mtns	--	--	0	0	2	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--
5197	Cent SB V 1	4	2	16	13	6	7	5	2	0	0	0	0	2	0	0	0	0	0	0	0
5203	Cent SB V 2	3	2	8	8	10	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0
5204	E SB V	0	0	5	0	5	2	2	0	0	0	0	--	--	--	--	--	--	--	--	--

( ) Figures within parentheses show number of months of data.
a) Data from 1982 onward are based on new filter type.

TABLE A-28

Sulfate - Maximum 24-Hour Averages, 1976-1995

(To Be Compared to State Standard of 25 µg/m^3, 24-Hour Average)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	29.8	38.3	36.7	24.5	38.2	23.0	26.2	25.8	27.6	15.4	14.6	15.4	23.6	16.9	16.0	19.2	16.8	19.1	17.5	12.9
069	E Sn Fernan V	--	--	--	--	--	--	--	--	--	21.6	19.1	17.5	33.6	22.1	25.9	18.6	12.9	20.1	18.3	13.7
072	S Coast LA Co	--	--	--	--	40.7 *	32.7	30.4	30.8	22.2	31.0	25.2	17.6	27.8	20.0	22.6	19.9	22.6	15.6	17.1	16.9
074	W Sn Fernan V	30.2	27.3	57.8	22.9	35.6	24.1	29.2	22.5	22.9	19.0	11.7 *	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	37.2	43.6	44.4	36.1	34.0	26.2	37.3	24.8	26.7	24.4 *	b)	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
082	Antelope V**	11.6	10.3	10.2	14.4	12.4	12.1	11.7	8.1	11.1	7.6	8.9	7.3	5.7	17.0	6.0*	--	--	--	--	--
084	S Cent LA Co	42.4	38.0	38.1	28.1	34.2	24.0	36.8	27.6	24.9	24.0	22.4	18.2	27.1	19.6	28.1	22.4	18.7	13.7	23.1	18.8
085	S Sn Gabrl V	--	40.8 *	47.2	30.6	34.3	27.1	30.8	34.8	20.6	19.2	22.1	17.8	28.1	32.0	21.1	21.6	17.0	15.5	26.2	16.3
087	Central LA	34.4	47.2	45.0	29.7	32.8	23.7	27.7	25.7	27.4 *	20.0	20.4	14.5	26.6	23.0	25.3	23.1	19.4	17.6	21.7	15.5
088	W Sn Gabrl V	33.8	38.2	53.4	26.4	38.4	27.8	26.6	26.8 *	25.4	20.9	15.6	14.0	24.4	18.0	28.4	20.1	11.5	18.8	14.5	13.2
089	Sta Clarita V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
091	NW Coast LA Co	22.6	28.7	41.2 *	23.5	34.9	25.3	26.0	20.0	26.4	22.5	16.9	15.2	17.4	19.6	24.8	20.9	12.3	18.1	26.8	13.3
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	25.2	20.6	19.0	22.6	24.8	24.7	17.6	20.5	26.7	20.4
ORANGE COUNTY:																					
3176	Cent Orange Co 1	29.3	37.7	30.7	24.4	37.2	24.7	22.6	24.4	20.1	19.4	18.5	14.6	23.1	17.7	18.3	20.6	16.0	15.3	14.5	12.8
3177	N Orange Co	26.0	34.5	34.7	26.2	35.0	25.6	28.8	19.7	21.9	22.8	10.1 *	--	--	--	--	--	--	--	--	--
3186	Saddleback V	22.6 *	32.9	26.7	21.5	21.2	20.0	13.4	21.2	14.9	21.2	14.9	14.3	16.2	16.5	13.4 *	--	--	--	--	--
3190	Cent Orange Co 2	35.9	37.0	31.0	26.6	34.6	26.0	24.5	26.3	19.5	22.4	23.6	18.2	27.3	17.4	16.8	16.9	16.0	14.7	--	--
3195	N Coast Orange	28.2	37.8	27.2	24.2	13.5 *	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	16.7	12.1	13.9	12.0	11.9	12.8	11.4	13.3	8.9	9.1	8.8	10.4	11.2	12.1	5.6*	--	--	--	--	--
4144	Metro Riv Co 1	44.3	33.4	55.9	28.1	39.2	30.4	23.1	27.7	22.8	21.0	18.4	16.1	23.6	16.9	19.9	14.8	12.3	13.7	20.4	26.3
4146	Metro Riv Co 2	--	--	--	--	--	--	--	27.5	22.6	21.1	18.5	19.7	19.0	16.6	19.3	12.8	12.1	15.1	15.7	22.9
4149	Perris Valley	--	--	--	--	--	--	--	17.9	15.9	14.1	14.0	15.6	11.5	15.9	12.9 *	--	--	--	--	--
4150	San Gorgonio P**	31.6	15.6	20.7	20.0	18.5	19.6	22.9	20.1	22.2	12.3	11.3	15.2	10.6	13.8	8.6*	--	--	--	--	--
4155	Norco/Corona	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	19.9	10.6	11.4	13.9	16.9	13.5	11.7	12.3 *	11.7	8.4	7.9	10.3	8.4	18.3	7.0*	--	--	--	--	--
SAN BERNARDINO COUNTY:																					

5171	SW SB V	48.6 *	29.4	30.0	--	--	--	--	27.2	28.3	18.5	19.8	17.8	21.1	16.4	19.9 *	--	--	--	--	--
5175	NW SB V	34.0 *	64.7	37.0	32.0 *	--	--	--	25.5	22.6	15.3	15.7	18.0	18.5	13.9	18.7	19.0	13.2	17.1	15.8	12.5
5181	Cent SB Mtns	8.2*	13.2	9.8	13.9	37.3	14.2	13.3	10.3	10.3	7.1	8.0	13.1	13.4	10.2	6.6*	--	--	--	--	--
5197	Cent SB V 1	32.7	30.2	51.7	32.8	40.0	42.4	32.5	33.1	23.8	16.4	18.1	18.7	28.1	14.9	18.3	20.2	13.4	16.7	15.5	13.4
5203	Cent SB V 2	27.5	28.5	47.1	31.7	42.8	38.8	29.6	27.1	23.4	19.4	17.8	17.6	15.8	17.8	17.3	18.3	12.9	17.2	14.9	12.5
5204	E SB V	21.5	23.7	32.7	23.7	37.3	31.0	28.5	24.1	21.0	16.2	9.9*	--	--	--	--	--	--	--	--	--

a) Data from 1982 onward are based on new filter type.
b) Station relocated in 1986.
* Less than 12 full months of data.
** Salton Sea or Mojave Desert Air Basin

TABLE A-29

Sulfate - Annual Arithmetic Mean, μg/m³

STN#	LOCATION	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																			
060	E Sn Gabrl V 1	10.61	10.06	9.81	10.16	7.79	8.76	8.68	6.78	6.33	6.65	6.86	6.45	5.97	6.96	5.47	5.80	5.94	5.50
069	E Sn Fernan V	--	--	--	--	--	--	--	8.33	7.15	6.69	7.80	6.97	6.40	7.41	5.81	6.38	6.21	5.66
072	S Coast LA Co	--	--	14.62*	11.89	9.26	11.14	9.40	9.36	8.38	8.38	8.09	7.57	7.27	7.72	7.21	7.66	7.66	7.69
074	W Sn Fernan V	10.62	9.09	9.28	8.23	7.00	6.53	7.54	6.58	--	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	13.29	13.00	13.21	11.95	9.36	10.77	10.10	9.78*	b)	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
082	Antelope V**	4.50	5.19	4.84	4.29	4.06	3.78	4.06	3.65	3.01	3.43	3.41	3.76	4.13*	--	--	--	--	--
084	S Cent LA Co	12.55	12.19	12.07	11.61	8.97	9.73	9.89	8.71	8.44	8.48	7.79	7.64	7.50	8.66	6.67	7.02	7.84	8.81
085	S Sn Gabrl V	13.11	11.63	12.40	11.61	9.78	11.00	9.62	8.62	8.74	8.32	8.77	9.31	7.54	8.94	7.03	8.07	8.19	7.45
087	Central LA	12.20	11.62	11.86	11.21	8.88	10.02	10.23*	8.32	8.31	7.60	8.67	8.59	7.58	8.78	7.30	7.45	6.91	6.73
088	W Sn Gabrl V	12.06	10.51	10.25	10.40	8.44	9.20*	8.29	7.57	6.57	6.26	7.06	7.31	5.97	6.96	5.29	6.09	5.70	4.95
089	Sta Clarita V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
091	NW Coast LA Co	11.51*	9.81	10.46	10.43	8.04	8.57	9.12	7.77	7.48	6.56	7.02	7.78	6.35	7.53	5.77	6.87	7.08	6.24
094	SW Coast LA Co	--	--	--	--	--	--	--	--	9.05	7.87	8.54	9.82	7.87	9.50	7.49	9.32	9.67	10.32
ORANGE COUNTY:																			
3176	Cent Orange Co 1	9.82	10.39	11.00	10.16	7.89	8.95	8.69	7.79	6.83	6.51	6.67	6.65	6.17	6.45	5.53	6.67	6.55	6.11
3177	N Orange Co	10.70	10.59	10.78	10.52	8.49	8.50	8.35	7.54	5.04*	--	--	--	--	--	--	--	--	--
3186	Saddleback V	8.22	8.85	8.38	8.52	5.81	6.86	6.75	6.09	5.30	4.95	5.86	5.98	5.09*	--	--	--	--	--
3190	Cent Orange Co 2	10.47	10.92	11.21	10.80	8.34	8.92	8.44	7.61	6.96	6.46	7.13	6.50	6.42	6.95	5.87	7.29	--	--
3195	N Coast Orange	9.62	10.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:																			
4137	Coachella V 1**	4.55	4.90	4.93	5.63	3.87	4.57	4.14	3.90	3.74	3.46	3.88	3.76	3.11*	--	--	--	--	--
4144	Metro Riv Co 1	11.81	11.13	10.02	9.82	8.30	9.40	8.21	7.71	6.64	6.54	6.79	6.43	5.71	6.27	5.64	6.32	5.93	5.19
4146	Metro Riv Co 2	--	--	--	--	--	8.80	7.75	7.13	6.23	6.79	6.34	6.16	5.71	5.78	5.21	6.04	5.61	5.27
4149	Perris Valley	--	--	--	--	--	6.34	5.90	5.34	4.72	5.08	4.92	4.94	4.09*	--	--	--	--	--
4150	San Gorgonio P**	6.61	8.01	6.46	7.75	6.60	7.03	6.07	5.07	4.36	5.61	4.84	4.88	4.17*	--	--	--	--	--
4155	Norco/Corona	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	5.61	6.24	5.49	6.19	4.37	5.56	5.23	4.50	3.97	5.04	4.56	5.55	4.24*	--	--	--	--	--
SAN BERNARDINO COUNTY:																			
5171	SW SB V	--	--	--	--	--	9.12	8.89	7.68	6.95	7.22	7.02	6.84	6.44*	--	--	--	--	--
5175	NW SB V	10.93	12.86*	--	--	--	9.05	7.75	6.74	6.30	6.73	6.77	5.95	5.44	6.31	5.49	5.94	5.45	4.86
5181	Cent SB Mtns	4.58	6.12	6.09	5.36	4.29	4.34	4.09	3.24	3.07	3.49	3.55	3.55	2.87*	--	--	--	--	--
5197	Cent SB V 1	13.96	13.09	10.26	11.56	9.14	8.93	7.17	6.63	5.90	6.37	6.77	6.52	5.76	6.48	5.30	5.99	5.61	5.34
5203	Cent SB V 2	10.49	11.14	10.86	9.76	8.08	8.55	7.29	6.64	6.00	6.21	6.39	5.92	5.32	6.02	5.36	6.30	5.75	4.92
5204	E SB V	9.03	9.59	8.53	8.89	7.11	7.57	6.56	6.22	3.51*	--	--	--	--	--	--	--	--	--

a) Data from 1982 onward are based on new filter type.
b) Station relocated in 1986.
* Less than 12 full months of data.
** Salton Sea or Mojave Desert Air Basin

TABLE A-30

1995 Air Quality - Lead

Source/ Receptor Area No.	Location	Station No.	Lead [f] Max. Mo. Conc. µg/m³	Max. Qtrly. Conc. µg/m³	Quarters/Months Exceeding Standard[h] Federal >1.5 µg/m³ Qtrly. Avg.	State ≥1.5 µg/m³ Mo. Avg.
LOS ANGELES COUNTY						
1	Central LA	087	.07	.06	0	0
2	NW Coast LA Co	091	--	--	--	--
3	SW Coast LA Co	094	.04	.04	0	0
4	S Coast LA Co	072	.05	.04	0	0
6	W Sn Fernan V	074	--	--	--	--
7	E Sn Fernan V	069	.05*	.04*	0*	0
8	W Sn Gabrl V	088	--	--	--	--
9	E Sn Gabrl V	060/591	--	--	--	--
10	Pomona/Wln V	075/108	--	--	--	--
11	S Sn Gabrl V	085	.07	.06	0	0
12	S Cent LA Co	084	.07	.06	0	0
13	Sta Clarita V	089	--	--	--	--
14	Antelope V**	096	--	--	--	--
ORANGE COUNTY						
16	N Orange Co	3177	--	--	--	--
17	Cent Orange Co	3176	.04	.04	0	0
18	N Coast Orange	3195	--	--	--	--
19	Saddleback V	3186	--	--	--	--
RIVERSIDE COUNTY						
22	Norco/Corona	4155	--	--	--	--
23	Metro Riv Co	4144/4146	.05	.04	0	0
24	Perris Valley	4149	--	--	--	--
25	Lk Elsinore	4158	--	--	--	--
26	Temecula V	4163	--	--	--	--
28	Hemet/Sn Jcnto	4141	--	--	--	--
29	San Gorgonio P**	4150	--	--	--	--
30	Coachella V**	4137/4157	--	--	--	--
SAN BERNARDINO COUNTY						
32	NW SB V	5175	.06	.04	0	0
33	SW SB V	5171	--	--	--	--
34	Cent SB V	5197/5203	.05	.04	0	0
35	E SB V	5204	--	--	--	--
37	Cent SB Mtns	5181	--	--	--	--

Areas 9, 10, 23, 30 and 24 have two monitoring stations each. Values shown are the highest recorded at either station.

µg/m³ - Micrograms per cubic meter of air.

-- - Pollutant not monitored.

* - Less than 12 full months of data. May not be representative.

** - Salton Sea or Mojave Desert Air Basin.

f) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by high volume sampler method,
on glass fiber filter media. Federal TSP standard suspended by PM_{10} standard, July 1, 1987.

h) - Special monitoring immediately downwind of stationary sources of lead was carried out at several locations in 1995. The maximum monthly average concentration was 0.62 $\mu g/m^3$, and the maximum quarterly average concentration was 0.60 $\mu g/m^3$, both recorded in Area 5, Southeast Los Angeles County.

TABLE A-31

Lead - Highest Calendar Quarter Mean, µg/m³
(To Be Compared to Federal Standard of 1.50 µg/m³, Calendar Quarter Average)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	1.96	2.68	1.44	1.08	0.91	0.74	0.69	0.50	0.43	0.21	0.18	--	--	--	--	--	--	--	--	--
069	E Sn Fernan V	--	--	--	--	--	--	--	--	0.65 *	0.49	0.33	0.20	0.20	0.10	0.07	0.07	0.09	0.05	0.05	0.04
072	S Coast LA Co	--	--	--	--	--	1.12	0.92	0.70	0.69	0.36	0.31	0.22	0.15	0.08	0.07	0.07	0.05	0.05	0.04	0.04
074	W Sn Fernan V	3.37	3.40	2.42	1.73	1.68	0.97	0.79	0.67	0.55	0.27	0.15	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-	--	--	--
076	SW Coast LA Co	7.52	5.34	4.06	3.21	2.55	1.57	1.63	1.03	1.02	0.60	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
082	Antelope V**	--	--	0.90	0.85	0.62	0.39	0.25	0.22	0.22	0.13	0.10	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	5.30	4.59	3.27	2.98	2.15	1.40	1.36	1.03	1.02	0.63	0.44	0.24	0.19	0.11	0.11	0.10	0.08	0.06	0.07	0.06
085	S Sn Gabrl V	--	5.52	2.77	2.00	1.96	1.27	1.12	0.86	0.72	0.49	0.40	0.26	0.22	0.12	0.11	0.14	0.10	0.11	0.08	0.06
087	Central LA	3.76	4.46	2.38	2.69	2.04	1.30	1.04	0.80	0.72	0.47 *	0.28	0.18	0.14	0.12	0.09	0.14	0.11	0.07	0.07	0.06
088	W Sn Gabrl V	4.49	4.37	3.01	2.28	1.65	1.08	0.73	0.56	0.56	0.29	0.19	--	--	--	--	--	--	--	--	--
089	Sta Clarita V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
091	NW Coast LA Co	2.17	2.14	2.00	1.81	1.68	1.28	0.89	0.60	0.58	0.26	0.15	--	--	--	--	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	0.25	0.17	0.11	0.07	0.06	0.06	.05*	0.04	0.04	0.04
ORANGE COUNTY:																					
3176	Cent Orange Co 1	3.49	3.28	2.00	1.60	1.44	0.90	0.75	0.54	0.56	0.27	0.20	0.13	0.09	0.08	0.06	0.06	0.03	0.04	0.03	0.04
3177	N Orange Co	3.46	3.20	2.11	1.67	1.34	0.97	0.88	0.59	0.58	0.33	0.18	--	--	--	--	--	--	--	--	--
3186	Saddleback V	--	1.58	0.85	0.65	0.60	0.41	0.32	0.27	0.24	0.15	0.09	--	--	--	--	--	--	--	--	--
3190	Cent Orange Co 2	4.57	3.25	2.70	2.08	1.52	0.85	0.97	0.55	0.60	0.31	0.22	--	--	--	--	--	--	--	--	--
3195	N Coast Orange	3.39	2.66	2.00	1.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	0.47	0.34	0.25	0.21	0.13	0.12	0.14	0.10	0.06	--	--	--	--	--	--	--	--	--
4144	Metro Riv Co 1	2.31	1.95	1.53	1.18	0.84	0.64	0.46	0.41	0.40	0.21	0.16	0.12	0.07	0.05	0.05	0.05	0.03	0.04	0.04	0.04
4146	Metro Riv Co 2	--	--	--	--	--	--	--	0.54	0.55	0.30	0.21	0.14	0.09	0.06	0.05	0.06	0.03	0.04	0.03	0.03
4149	Perris Valley	--	--	--	--	--	--	--	0.25	0.26	0.13	0.10	--	--	--	--	--	--	--	--	--
4150	San Gorgonio P**	--	--	0.50	0.49	0.27	0.23	0.23	0.17	0.18	0.09	0.08	--	--	--	--	--	--	--	--	--
4155	Norco/Corona	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	--	--	0.50	0.36	0.28	0.22	0.13	0.17	0.20	0.14	0.12	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5171	SW SB V	--	--	--	--	--	--	--	0.36	0.50	0.26	0.17	--	--	--	--	--	--	--	--	--
5175	NW SB V	2.07	1.84	1.35	1.09	--	--	--	0.47	0.36	0.23	0.17	0.11	0.07	0.08	0.05	0.07	0.04	0.04	0.04	0.04
5181	Cent SB Mtns	--	1.02	--	0.35	0.26	0.19	0.15	0.13	0.13	0.07	0.05	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	1.40	1.53	0.99	0.87	0.60	0.46	0.46	0.35	0.27	0.17 *	0.16	--	--	--	--	--	--	--	--	--
5203	Cent SB V 2	1.87	1.41	2.47	1.22	1.04	0.73	0.51	0.41	0.37	0.20	0.19 *	0.13	0.08	0.07	0.05	0.05	0.04	0.04	0.04 *	0.04
5204	E SB V	1.33	1.80	1.06	0.66	0.45	0.36	0.32	0.27	0.22	0.15	0.07 *	--	--	--	--	--	--	--	--	--

a) Station relocated in 1986.
 * Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

TABLE A-32

Lead - Highest Monthly Averages, μg/m^3
(To Be Compared to State Standard of 1.50 μg/m^3, Monthly Average)

STN#	LOCATION	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
LOS ANGELES COUNTY:																					
060	E Sn Gabrl V 1	2.27	3.06	1.59	1.48	1.45	0.92	0.72	0.55	0.45	0.25	0.19	--	--	--	--	--	--	--	--	--
069	E Sn Fernan V	--	--	--	--	--	--	--	--	0.90*	0.60	0.41	0.29	0.35	0.20	0.08	0.10	0.16	0.05	0.06	0.05
072	S Coast LA Co	--	--	--	--	2.01*	1.22	1.09	1.08	0.94	0.52	0.43	0.33	0.21	0.11	0.09	0.08	0.07	0.06	0.06	0.05
074	W Sn Fernan V	3.96	4.50	3.05	2.24	1.71	1.62	1.01	0.96	0.68	0.32	0.19*	--	--	--	--	--	--	--	--	--
075	Pomona/Wln V 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
076	SW Coast LA Co	10.04	6.77	5.48	3.91	3.44	1.91	1.70	1.29	1.38	0.90	a)	--	--	--	--	--	--	--	--	--
080	SE LA Co	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
082	Antelope V**	--	--	1.13	1.13	0.71	0.53	0.37	0.34	0.28	0.18	0.15	--	--	--	--	--	--	--	--	--
084	S Cent LA Co	8.13	5.74	4.42	3.67	3.02	1.83	1.55	1.36	1.43	0.91	0.58	0.32	0.31	0.15	0.14	0.17	0.11	0.08	0.09	0.07
085	S Sn Gabrl V	--	6.68*	4.02	2.24	2.34	1.59	1.18	1.14	0.93	0.65	0.57	0.31	0.29	0.19	0.13	0.19	0.15	0.15	0.10	0.07
087	Central LA	4.90	5.06	2.71	2.82	2.68	1.75	1.05	1.04	0.89*	0.61	0.42	0.23	0.22	0.17	0.09	0.21	0.16	0.10	0.11	0.07
088	W Sn Gabrl V	5.61	4.73	4.16	2.54	1.72	1.43	0.90	0.84	0.73	0.38	0.24	--	--	--	--	--	--	--	--	--
089	Sta Clarita V	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
091	NW Coast LA Co	2.98	2.63	2.90*	2.17	2.02	1.83	1.00	0.82	0.78	0.33	0.23	--	--	--	--	--	--	--	--	--
094	SW Coast LA Co	--	--	--	--	--	--	--	--	--	--	0.35	0.26	0.18	0.13	0.08	0.08	0.05*	0.05	0.05	0.04
ORANGE COUNTY:																					
3176	Cent Orange Co 1	4.62	4.60	2.96	1.90	2.05	1.13	0.78	0.72	0.65	0.32	0.27	0.14	0.11	0.15	0.10	0.08	0.05	0.07	0.06	0.04
3177	N Orange Co	4.55	4.07	3.20	1.89	1.72	1.31	0.96	0.95	0.71	0.44	0.23*	--	--	--	--	--	--	--	--	--
3186	Saddleback V	2.11*	2.66	1.36	0.72	0.69	0.61	0.36	0.32	0.31	0.20	0.10	--	--	--	--	--	--	--	--	--
3190	Cent Orange Co 2	6.38	4.68	4.04	2.71	1.88	1.14	1.08	0.93	0.86	0.39	0.28	--	--	--	--	--	--	--	--	--
3195	N Coast Orange	4.16	3.63	3.11	1.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY:																					
4137	Coachella V 1**	--	--	0.73	0.44	0.35	0.31	0.18	0.16	0.17	0.13	0.10	--	--	--	--	--	--	--	--	--
4144	Metro Riv Co 1	2.94	2.45	1.80	1.30	1.07	0.85	0.55	0.57	0.54	0.27	0.17	0.14	0.10	0.07	0.08	0.06	0.03	0.05	0.06	0.04
4146	Metro Riv Co 2	4.37	3.90	--	--	--	--	--	0.77	0.65	0.37	0.24	0.18	0.12	0.07	0.08	0.08	0.03	0.04	0.04	0.05
4149	Perris Valley	--	--	--	--	--	--	--	0.28	0.31	0.18	0.11	--	--	--	--	--	--	--	--	--
4150	San Gorgonio P**	--	--	0.59	0.61	0.31	0.27	0.27	0.24	0.21	0.10	0.10	--	--	--	--	--	--	--	--	--
4155	Norco/Corona	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4157	Coachella V 2**	--	--	0.63	0.52	0.36	0.40	0.16	0.24	0.24	0.19	0.16	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY:																					
5171	SW SB V	5.30*	--	--	--	--	--	--	0.44	0.67	0.36	0.22	--	--	--	--	--	--	--	--	--
5175	NW SB V	2.60*	2.47*	1.68	1.43*	--	--	--	0.54	0.43	0.26	0.20	0.13	0.10	0.11	0.07	0.08	0.04	0.05	0.05	0.06
5181	Cent SB Mtns	0.30*	0.78*	0.36	0.48	0.31	0.29	0.18	0.17	0.14	0.12	0.08	--	--	--	--	--	--	--	--	--
5197	Cent SB V 1	2.10	3.15*	1.19	1.20	0.86	0.52	0.53	0.39	0.34	0.22	0.17	--	--	--	--	--	--	--	--	--
5203	Cent SB V 2	2.40	1.83	3.33	1.49	1.30	1.01*	0.62	0.52	0.47	0.31	0.23	0.15	0.12	0.09	0.07	0.06	0.05	0.05	0.04*	0.05
5204	E SB V	1.80	1.59*	1.25	0.82	0.57	0.47	0.34	0.32	0.30	0.19	0.10*	--	--	--	--	--	--	--	--	--

a) Station relocated in 1986.
* Less than 12 full months of data
** Salton Sea or Mojave Desert Air Basin

FINAL
APPENDIX II

CURRENT AIR QUALITY

NOVEMBER 1996

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD

Chairman: JON D. MIKELS
San Bernardino
County Representative

Vice Chairman: WILLIAM A. BURKE, Ed.D.
Speaker of the Assembly Appointee

MEMBERS:

MICHAEL D. ANTONOVICH
Los Angeles County Representative

MARVIN BRAUDE
Cities Representative, Los Angeles County, Western Region

CANDACE HAGGARD
Cities Representative, Orange County

MEE HAE LEE
Senate Rules Committee Appointee

RONALD O. LOVERIDGE
Cities Representative, Riverside County

LEONARD PAULITZ
Cities Representative, San Bernardino County

JAMES SILVA
Orange County Representative

NELL SOTO
Cities Representative, Los Angeles County, Eastern Region

S. ROY WILSON, Ed.D.
Riverside County Representative

VACANT
Governor's Appointee

EXECUTIVE OFFICER
JAMES M. LENTS, Ph.D.

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U.S. Environmental Protection Agency:

Region IX
Coe Owen

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CHAPTER 4 AIR QUALITY IN THE LOS ANGELES COUNTY MDAB

REFERENCES

ATTACHMENT

LIST OF FIGURES

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SUMMARY

SUMMARY

In 1995 the South Coast Air Quality Management District monitored concentrations of air pollutants at 35 locations in southern California's Los Angeles, Orange, Riverside and San Bernardino Counties. Pollutant concentrations exceeded the federal and state standards for ozone, carbon monoxide, and particulate matter (PM_{10}), and the state standard for sulfate. Standards for nitrogen dioxide, sulfur dioxide, and lead were not exceeded.

During the period 1992-1994, the South Coast Air Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties) recorded more days exceeding the federal ozone standard than any other area of the U.S. The Basin also exceeded the federal standard for carbon monoxide more frequently than any other U.S. area. The Basin continued to rank among the high areas of the U.S. in terms of annual average PM_{10}, although it did not record the highest annual average PM_{10} during 1992-1994.

South Coast Air Basin

In 1995, there were a total of 98 days on which the federal ozone standard was exceeded at one or more Basin locations, and 16 days on which the federal carbon monoxide standard was exceeded. The federal PM_{10} standard was exceeded on 10% of days sampled at one or more Basin locations (PM_{10} is sampled every sixth day).

The number of days exceeding the federal ozone standard varied widely in the different areas of the District, from zero to 73 exceedances depending on location. Exceedances were fewest at the coast, increasing to a maximum in the inland valleys of the Basin, and then decreasing further downwind in the Basin's far inland areas and in the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Basin's East San Gabriel Valley area exceeded the federal ozone standard most frequently (73 days). The highest ozone concentration recorded (0.26 ppm in the Central San Bernardino Mountain area) was 200% of the federal standard and 260% of the state standard.

Exceedances of the federal and state carbon monoxide standards were limited to coastal and central Los Angeles County areas. The South Central Los Angeles County area recorded the greatest number of exceedances, with 13 days exceeding the federal standard and 15 days exceeding the state standard.

Exceedances of the federal annual PM_{10} standard were confined to Riverside and San Bernardino Counties, primarily in and around the Metropolitan Riverside County area. The federal 24-hour PM_{10} standard was exceeded in a somewhat larger area, with exceedances in all four Basin counties. The most affected location (Metropolitan Riverside County) exceeded on 7% of days. The more stringent state annual PM_{10} standard was exceeded in a much larger area, covering most of the Basin. The state 24-hour standard was exceeded at all locations, from 2% to 62% of days depending on location. The maximum 24-hour

average PM_{10} concentration recorded was 145% of the federal standard and 429% of the state standard.

Riverside County SSAB

Pollutant concentrations in the Riverside County portion of SSAB were monitored at two locations in the Coachella Valley in 1995, and exceeded the federal and state standards for ozone and PM_{10}. No other standards were exceeded.

The highest ozone concentration recorded in the Coachella Valley in 1995 was 123% of the federal standard. The federal ozone standard was exceeded on a maximum of nine days. Both the state and federal 24-hour PM_{10} standards and the state and federal annual PM_{10} standards were exceeded in the Coachella Valley. However, the deletion of one high-wind day sample from consideration results in there being no exceedances of the federal standards in 1995.

Los Angeles County MDAB

Pollutant concentrations were monitored in the Los Angeles County MDAB's Antelope Valley in 1995, and exceeded the state and federal ozone standards. Maximum concentrations of other pollutants remained below the standards.

The maximum ozone concentration recorded in the Antelope Valley was 108% of the federal standard and 130% of the state standard. The federal ozone standard was exceeded on 5 days.

Seasonal, Day-of-Week and Diurnal Variations

Concentrations of pollutants have been found to vary by season, day of week, and time of day, and these variations were examined for 1993-1995 for ozone and carbon monoxide, and for 1985-1995 for PM_{10}. Ozone standard exceedances generally peak in summer, while carbon monoxide exceedances peak in late fall and winter and federal 24-hour PM_{10} exceedances peak in fall and winter. Ozone tended to be higher on weekends than on weekdays, while the opposite was true for carbon monoxide and PM_{10}. The time of the day which averaged highest in ozone concentration was early afternoon in the peak ozone area, while carbon monoxide averaged highest at the time of morning rush traffic.

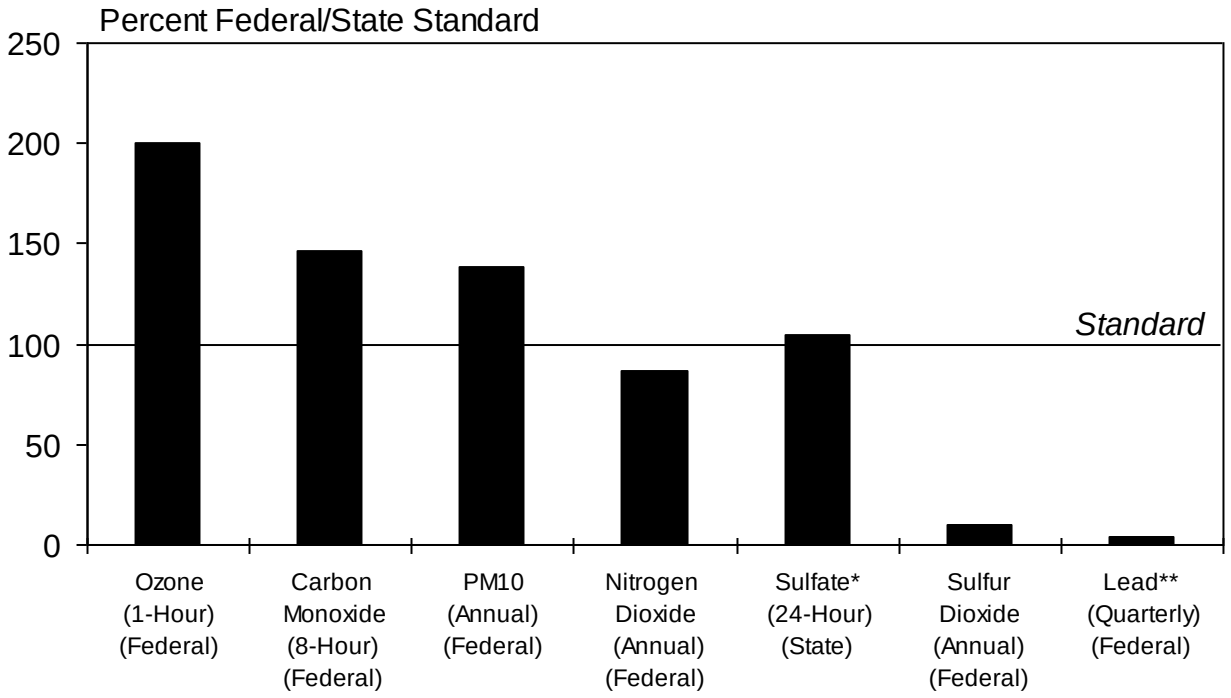
CHAPTER 1

INTRODUCTION

INTRODUCTION

Air Quality Overview

In 1995, the South Coast Air Quality Management District (District) measured pollutant concentrations at 35 locations in Southern California's South Coast Air Basin (Basin) and in the neighboring areas of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB) that are within the District's jurisdiction. Pollutant concentrations exceeded federal and state standards for ozone, carbon monoxide, and particulate matter, and the state standard for sulfate. Figure 1-1 shows the maximum pollutant concentrations for 1995 as a percentage of the federal standards.



* There is no fedeal stadnard for sulfate.

** Higher measurements were recorded at special monitoring sites immediately adjacent to sources. Maximum quarterly average concentrations was 0.60 µg/m^3.

FIGURE 1-1

1995 District Maximum Pollutant Concentrations As Percent of Standards

The maximum concentration of ozone recorded in 1995 was 200% of the federal standard. Maximum concentrations of carbon monoxide and PM_{10} were 146% and 138% of federal standards, respectively. The maximum sulfate concentration was 105% of the state standard. Annual average concentrations of nitrogen dioxide and sulfur dioxide reached a maximum of 87% and 10% of federal standards, respectively. Lead concentrations at the

District's monitoring stations reached a maximum of 4% of the federal standard. However, special monitoring in the immediate vicinity of stationary sources showed very localized concentrations as high as 40% of the federal lead standard.

In recent years, the South Coast Air Basin has exceeded federal standards far more frequently than any other area of the United States. In 1995, Basin locations exceeded one or more of the federal standards on 116 days.

Air Quality Standards and Episode Levels

Both the federal and state governments have adopted ambient air quality standards, which define the concentration below which long-term exposure to a pollutant is not expected to cause adverse effects to public health and welfare. Episode levels have also been established, below which short-term exposures are not expected to be injurious to health. The standards and episode levels are summarized in Tables A-1 and A-2 in the Attachment at the end of this Appendix.

Both standards and episode levels are periodically reviewed to incorporate the findings from the most current research available on effects of pollutants. At the present time, the federal government is considering revising federal standards for particulate matter and ozone. The ozone standard under consideration would protect against the effects of exposure prolonged over several hours, and the U.S. EPA staff have suggested a range of 0.07-0.09 ppm, 8-hour average.

For particulate matter, the U.S. EPA is considering a new standard for the finest fraction of particulate (particles less than about 2.5 micrometer), which is most injurious to health and which causes the greatest visibility reduction. U.S. EPA staff have recommended that the ranges of the new $PM_{2.5}$ standards be set between 18 and 65 $\mu g/m^3$, 24-hour average, and between 12.5 and 20 $\mu g/m^3$, annual average.

South Coast Air Quality Management District

California's first local air pollution control agency, the Los Angeles County Air Pollution Control District (LAAPCD), was formed in 1947 and APCDs were formed in Orange, Riverside, and San Bernardino Counties not long afterward. These four agencies combined in 1976 to form the Southern California APCD, which was later replaced by the South Coast Air Quality Management District and the Mojave Desert APCD.

The South Coast Air Quality Management District was established by state legislation effective February 1, 1977, and was assigned jurisdiction over air quality in the South Coast Air Basin. The District is also responsible for air quality in the Los Angeles County portion of the Mojave Desert Basin (MDAB) and the Riverside County area of the Salton Sea Air Basin (SSAB), by contract with the two counties. The South Coast Air Quality Management District

is the name applied both to the agency and to the region it serves. The region encompassed by the District is shown in Figure 1-2. In 1995, the District maintained a network of 32 air monitoring stations in the Basin and an additional three in the District portions of SSAB and MDAB (See Figure A-1 and Table A-3 in the Attachment).

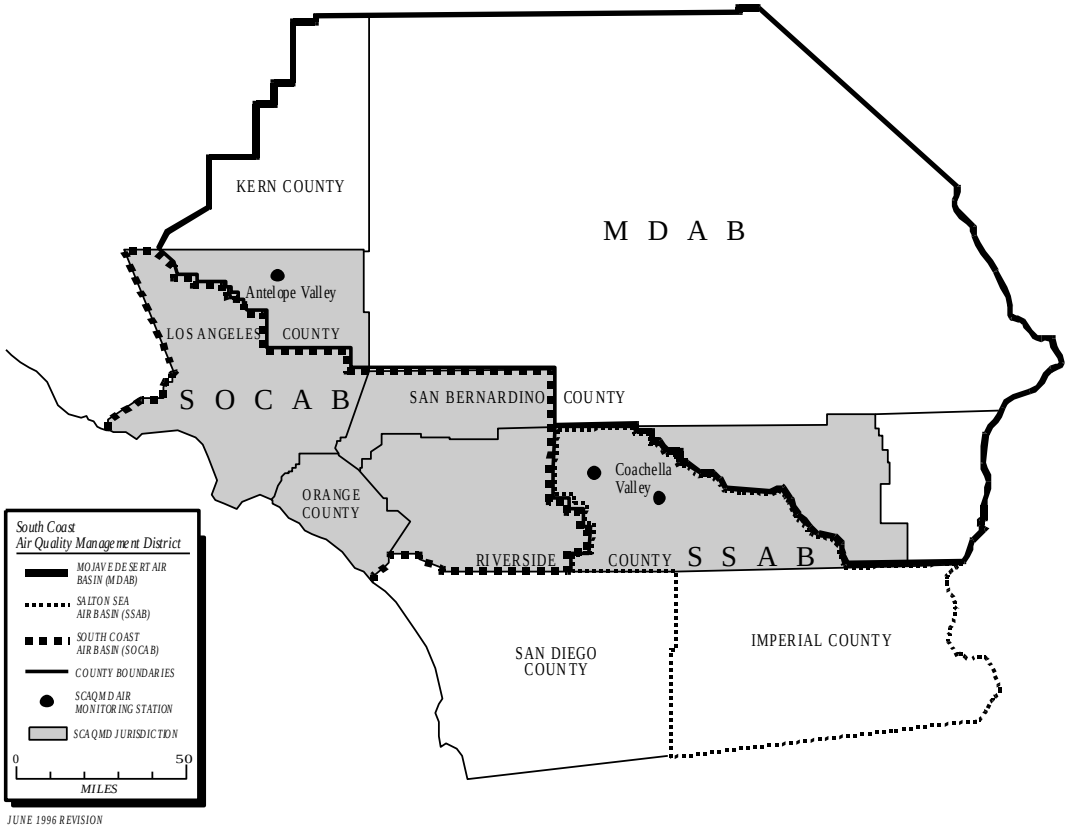


FIGURE 1-2

South Coast Air Quality Management District

South Coast, Salton Sea and Mojave Desert Air Basins

The South Coast Air Basin (Basin) has an area of 6800 square miles and the population was 13 million in 1990. It includes all of Orange County and the non-desert areas of Los Angeles, Riverside and San Bernardino Counties. The Los Angeles urban area (the nation's second largest) and the Anaheim-Fullerton, and Riverside-San Bernardino urban areas lie within the Basin's boundaries. About two-thirds of the Basin's population lives within Los Angeles County.

The Salton Sea Air Basin and the Mojave Desert Air Basin have a combined area of approximately 32,200 square miles. The two Basins include the desert portions of Los Angeles, Riverside and San Bernardino Counties as well as Imperial County and part of Kern

County. The population in the Los Angeles and Riverside County portions of these basins totals about half a million.

The SSAB and MDAB were previously included in a single large Basin called the Southeast Desert Air Basin (SEDAB). The SEDAB also included the San Gorgonio Pass area. On May 30, 1996, the California Air Resources Board replaced the SEDAB with the SSAB and MDAB, and transferred the San Gorgonio Pass area to the Basin.[1]

Weather

The South Coast Air Basin is arid, with virtually no rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. The combination of poor dispersion and abundant sunshine provide conditions especially favorable to the formation of photochemical smog. The Basin is also bounded to the north and east by mountains with maximum elevations exceeding 10,000 feet. The combination of unfavorable meteorology, topography, and emissions from the nation's second largest urban area result in the Basin having the worst air quality in the U.S. More detailed information on Basin weather is available in a previous District publication.[2] Although the air pollution data in that 1980 report is now out of date, its comprehensive information on Basin climatology is still an invaluable aid to understanding the area's air pollution problem.

Emissions

The amount of each of the major pollutants emitted into the atmosphere of the Basin and District portions of SEDAB (which includes both MDAB and SSAB) in 1993 is shown in Figure 1-3. In 1993, approximately 8700 tons of carbon monoxide (CO), 1300 tons of oxides of nitrogen (NO_x), 1300 tons of volatile organic compounds (VOC), 100 tons of oxides of sulfur (SO_x), and 430 tons of directly emitted particulate (PM_{10}) were emitted into the Basin's atmosphere each day. (Additional PM_{10} also forms by chemical reaction of the gaseous pollutants.) In the District portions of SEDAB, emissions averaged 340 tons of CO, 80 tons of NO_x, 70 tons of VOC, 3 tons of SO_x, and 170 tons of directly emitted particulate per day in 1993. Emissions vary relatively little by season, but there are large seasonal differences in the atmospheric concentrations of pollutants due to seasonal variations in the weather. (Details of the 1993 emissions inventory are contained in Appendix III.)[3]

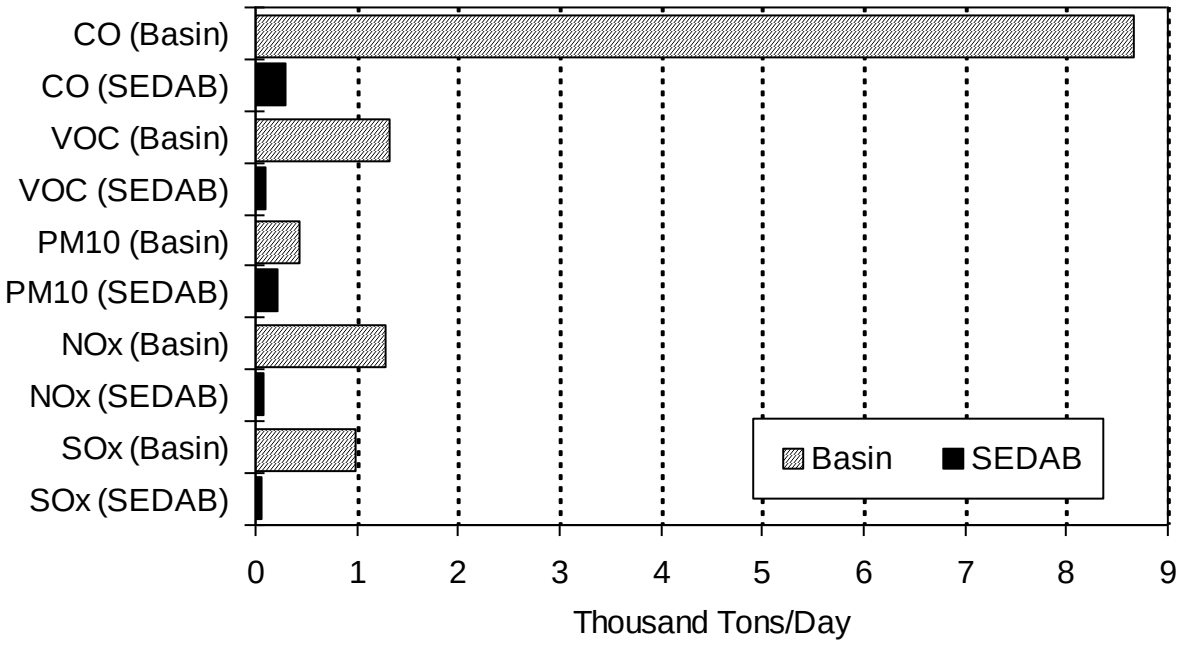


FIGURE 1-3

1993 Average Daily Emissions

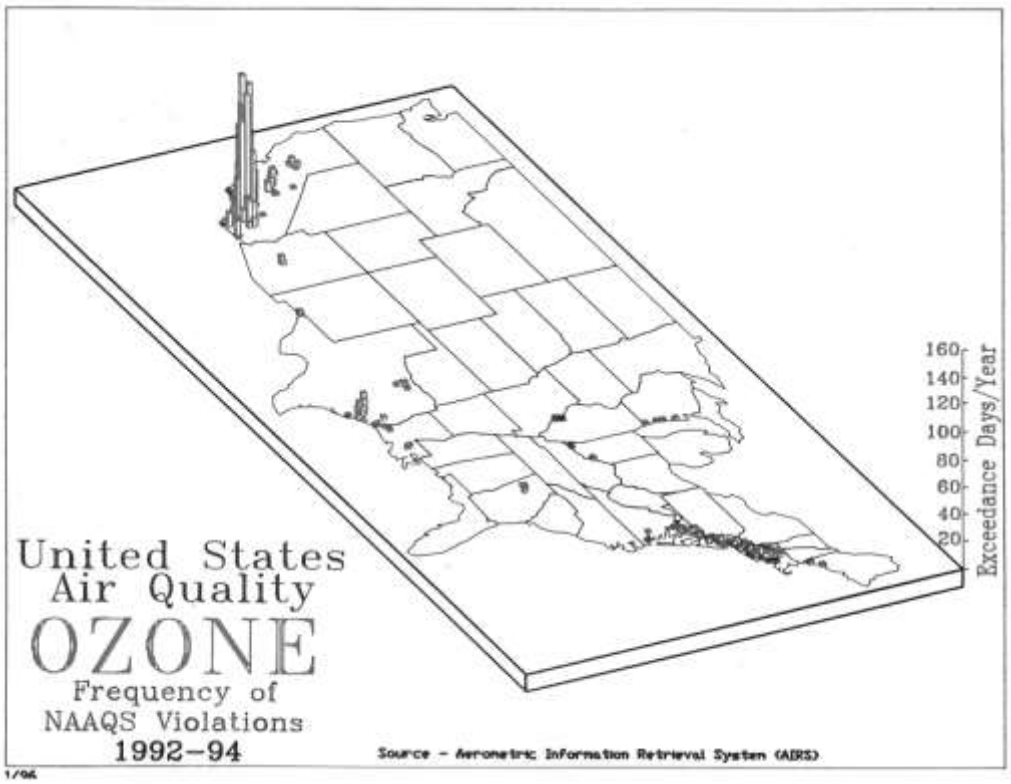
VOC and NO_x are precursors of ozone. NO_x and VOC also react to form nitrates and solid organic compounds, which are a significant fraction of PM_{10}. Sulfur dioxide reacts to form sulfates which are likewise significant contributors to the Basin's PM_{10}. In addition to the PM_{10} formed by reaction of gaseous precursors, there is directly emitted PM_{10}, most of which is attributed to fugitive dust sources such as re-entrained road dust, construction activities, farming operations and windblown dust.

Air Quality in the District Compared to Other Areas of the U.S.

Figure 1-4 shows the average number of days on which the federal ozone standard was exceeded at U.S. locations for the years 1992-1994. In recent years, the annual number of days exceeding the ozone standard in the Basin's most affected areas has been far greater than the number of days exceeding in other areas of the U.S. In 1995, the federal standard was exceeded on a maximum of 73 days at Basin air monitoring stations.

FIGURE 1-4

U.S. Air Quality, Ozone,



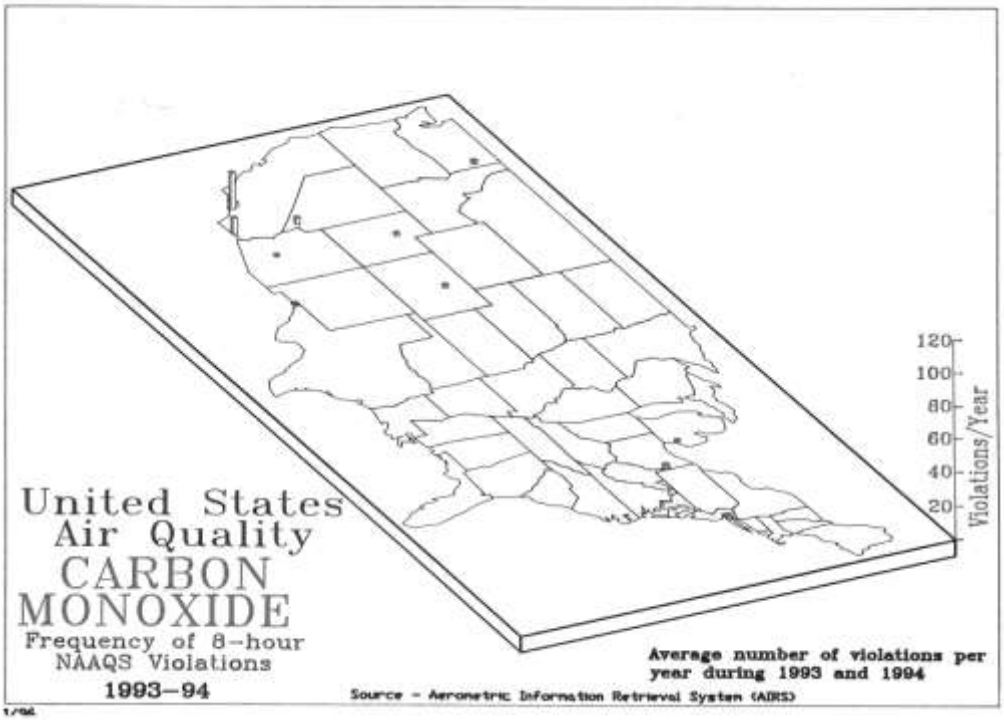
Frequency of NAAQS Violations, 1992-1994

Figure 1-5 shows the average number of days exceeding the federal carbon monoxide standard during 1993-1994. Over the past decade, reductions in vehicular emissions have reduced carbon monoxide levels throughout the U.S., and many areas have ceased violating the standards. Of the relatively few areas which still exceeded the standard in 1993-1994, the Basin recorded the greatest number of exceedances. In 1995, the federal standard was exceeded on a maximum of 13 days at Basin stations.

The maximum annual average PM_{10} concentration at locations which exceeded the federal standard during the years 1992-1994 is shown in Figure 1-6. The Basin exceeded the federal standard in a number of areas, but did not record the highest annual average PM_{10} for the period. The highest concentration was recorded at a location in the Philadelphia area, and the second highest was recorded in Southern California close to the Mexican border. In 1995, the highest annual average (69.0 $\mu g/m^3$) recorded in the Basin was 138% of the federal standard. More detailed information on air quality in the western U.S. or U.S. is available in EPA publications.[4,5]

FIGURE 1-5

U.S. Air Quality, Carbon



Monoxide, Frequency of NAAQS Violations, 1993-1994

FIGURE 1-6

U.S. Air Quality,

Particulates (PM_{10}), Severity of NAAQS Violations, 1992-1994

The following three chapters of this report summarize current air quality in the District. Analyses are presented for:

- Ozone (O_3)

- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO_2)
- Sulfur Dioxide (SO_2)
- Particulate Matter (PM_{10})
- Lead (Pb)
- Sulfate ($SO_4^=$)

Chapters 2, 3, and 4 contain summaries of air quality in the South Coast Air Basin, the Riverside County portion of Salton Sea Air Basin, and the Los Angeles County portion of Mojave Desert Air Basin, respectively. Salton Sea Air Basin includes Coachella Valley, and Mojave Desert Air Basin includes Antelope Valley. For those pollutants which exceeded the federal standards, maps are presented which show how air quality varies in different areas of the three air basins. Detailed air quality statistics for each of the District's monitoring locations in the Basin, SSAB and MDAB are contained in the Attachment to this report.

Detailed analyses of air quality trends through 1993 are available in the 1994 Air Quality Management Plan.[6] A brief update of this information through 1994 was published in 1995.[7]

CHAPTER 2

AIR QUALITY IN THE SOUTH COAST AIR BASIN

AIR QUALITY IN THE SOUTH COAST AIR BASIN

The maximum pollutant concentrations recorded at District monitoring stations in 1995 (Figure 1-1 in Chapter 2) were all recorded in the densely populated South Coast Air Basin. However, air quality in the Basin varied widely by season and by area.

The prevailing daytime sea breeze tends to transport pollutants from coastal areas into the Basin's inland valleys, and from there, still further inland into the neighboring areas of SSAB and MDAB. Concentrations of primary pollutants (those emitted directly into the air) are typically highest close to the sources which emit them. However, secondary pollutants (those formed in the air by chemical reaction of precursors) reach maximum concentrations some distance downwind of the sources that emit the precursors, due to the fact that the polluted air mass is moved inland many miles by the prevailing winds before maximum concentrations are reached.

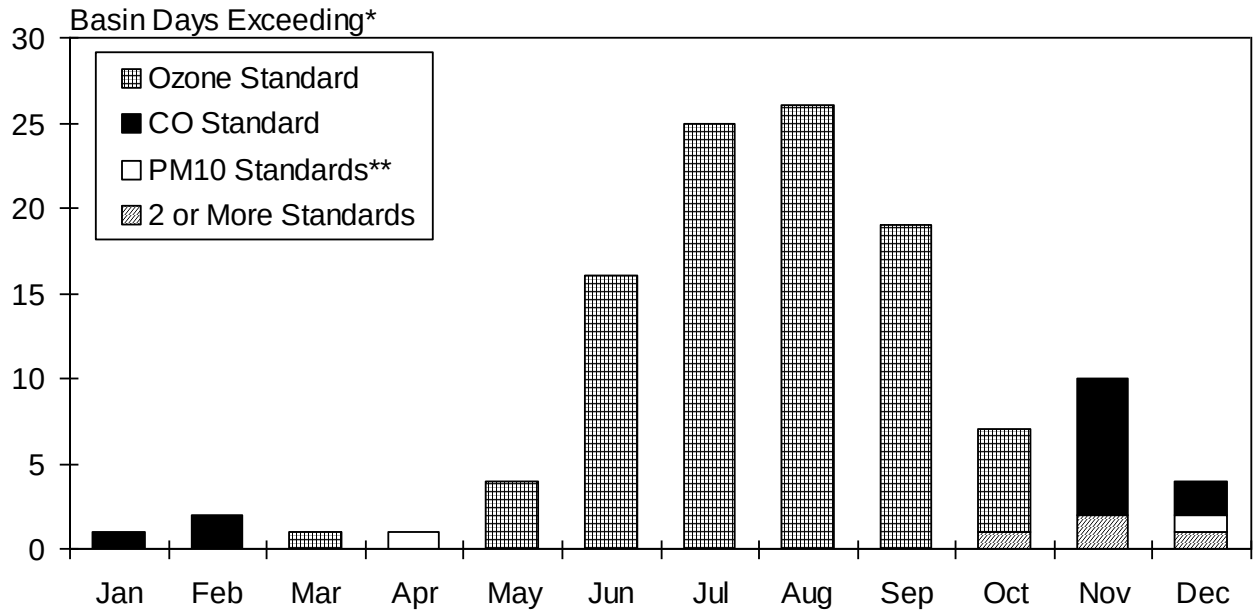
The Basin's air quality varies with season due to seasonal differences in the weather. In Figure 2-1, the number of days exceeding federal standards is shown for each month of 1995. Nearly all of the ozone exceedances occurred during the May to October "smog season." Carbon monoxide exceedances, on the other hand, occurred in the late fall and winter months. PM_{10} is sampled infrequently, but over the past ten years, PM_{10} concentrations have exceeded the federal standard during every month of the year.

Ozone (O_3)

Properties

The Basin's unique air pollution problem first began to be recognized in the 1940's. Unlike the smog in many other urban areas, the Los Angeles smog was worse in summer. Early research showed that ozone was being formed in the Basin's atmosphere from hydrocarbons and oxides of nitrogen being emitted into the air.[8-13] Regular monitoring was begun by the LAAPCD in the 1950's, and annual maximum 1-hour ozone concentrations in excess of 0.6 ppm were recorded at that time.

Ozone (O_3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Some mixing of stratospheric ozone downward through the troposphere to the earth's surface does occur. However, ozone concentrations are normally very low (0.03-0.05 ppm) at the earth's surface in sites remote from urban areas.



* Monthly number of days on which one or more basin locations exceeded one or more federal standards. The standards were exceeded on a total of 116 days in 1995.

** There number of exceedances due to PM_{10} alone may have been higher, since PM_{10} samples are only collected every sixth day.

FIGURE 2-1

Monthly Number of Days Exceeding Federal Standards in 1995

In urban areas, ozone is formed by a complicated series of chemical and photochemical reactions between reactive organic compounds, nitrogen oxides, and the oxygen in the air. A decrease in ozone precursors may or may not give a decrease in ozone. Ozone concentrations are dependent not only on overall precursor emissions, but on the ratio of hydrocarbon concentration to oxides of nitrogen concentration, on the reactivity of the specific hydrocarbons present, on the spatial and temporal distribution of emissions, and on weather.

While ozone is beneficial in the stratosphere because it filters out skin-cancer-causing ultraviolet radiation, it is a highly reactive oxidant. It is this reactivity which accounts for its damaging effects on materials, plants, and health at the earth's surface.

The propensity of ozone for reacting with organic materials causes it to be damaging to living cells, and ambient ozone concentrations in the Basin are frequently sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection. People with respiratory diseases, children, the elderly, and people who exercise heavily are more susceptible to the effects of ozone.

Plants are sensitive to ozone at concentrations well below the health-based standards and ozone is responsible for significant crop damage. Ozone is also responsible for damage to forests and other ecosystems.

Current Ozone Air Quality

In 1995, the District measured ozone concentrations at 33 regular monitoring locations. The maximum 1-hour average concentration in the Basin in 1995 (0.26 ppm, recorded in the Central San Bernardino Mountains area) was 200% of the federal standard and 260% of the state standard. The federal standard for ozone was exceeded at one or more Basin locations on a total of 98 days. The California state standard was exceeded on 154 days, the health advisory level on 59 days, and the stage I episode level on 14 days.

Figure 2-2 shows the number of days on which the federal ozone standard was exceeded in each area of the Basin in 1995. The standard was exceeded most frequently in the inland valleys and adjacent mountains, in an area extending from the San Gabriel Valley into the Riverside-San Bernardino area.

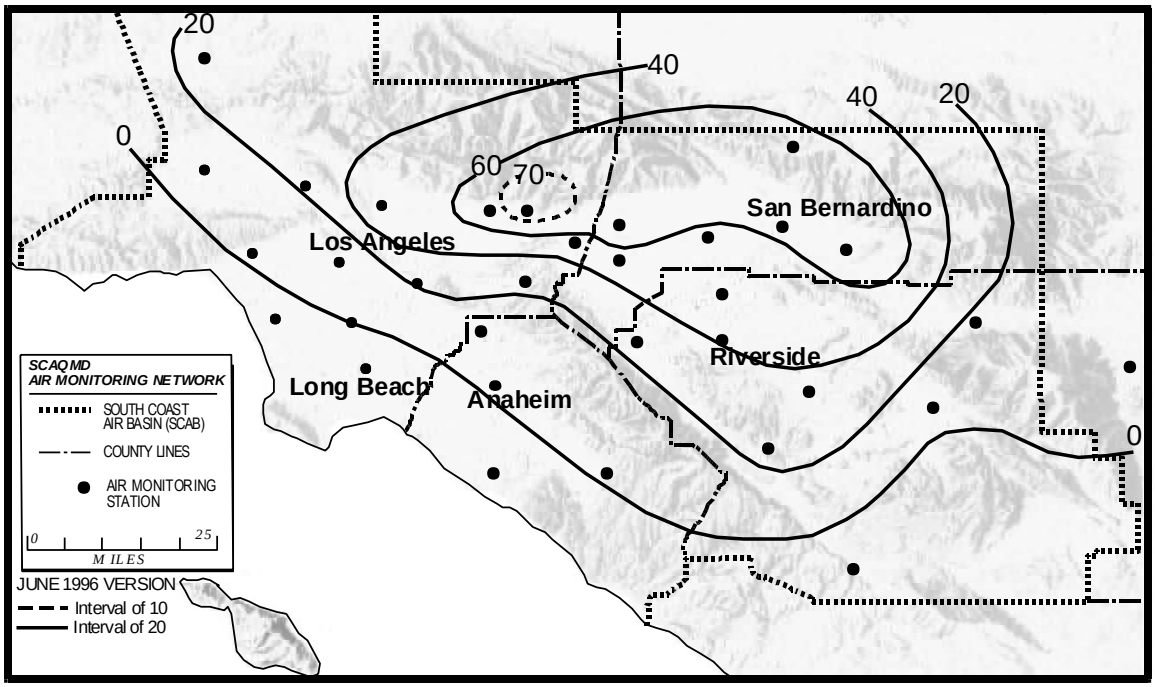


FIGURE 2-2

OZONE - 1995
Number of Days Exceeding Federal Standard
(1-hour average ozone > 0.12 ppm)

The federal standard was not exceeded at locations near the coast and in areas near the boundary between the Basin and San Diego County. The federal standard was exceeded most frequently in the East San Gabriel Valley area, with 73 days exceeding in 1995.

The more stringent state standard was exceeded almost everywhere in the Basin with the greatest number of exceedances in the inland valleys (Figure 2-3). The state standard was exceeded most frequently in the East San Bernardino Valley area, where it was exceeded on 123 days.

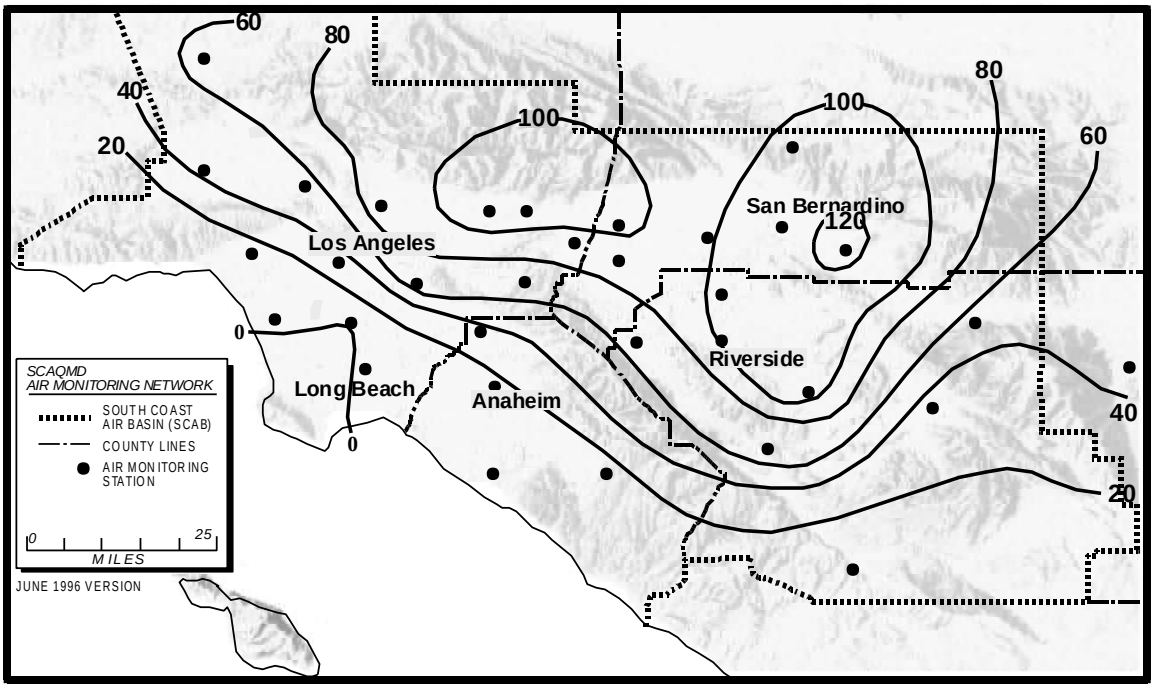


FIGURE 2-3

OZONE - 1995
Number of Days Exceeding State Standard
(1-hour average ozone > 0.09 ppm)

Figure 2-4 shows the number of days on which the stage I episode level (1-hour average O_3 $\geq$ 0.20 ppm) was exceeded in 1995. A decade ago, only coastal areas of the Basin did not record exceedances of the episode level. In 1995, most areas of the Basin no longer exceeded. The stage I episode level was exceeded most frequently in the East San Gabriel Valley area, with 9 days exceeding in 1995. There have been no exceedances of the stage II episode level (1-hour average $O_3 \geq 0.35$ ppm) since 1988. Stage II episodes were once a frequent occurrence in the Basin. Prior to 1975, the stage III episode level (1-hour average $O_3 \geq 0.50$ ppm) was also sometimes exceeded.

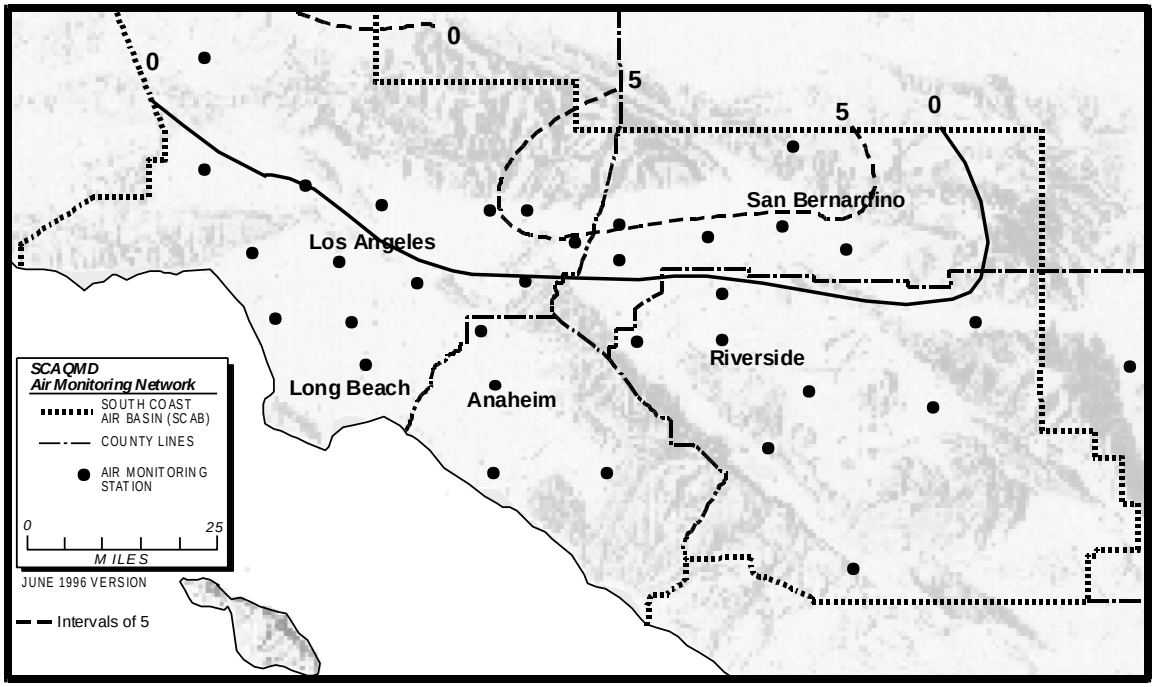


FIGURE 2-4

OZONE - 1995
Number of Days Exceeding Stage I Episode Level
(1-hour average ozone ≥ 0.20 ppm)

Table A-4 in the Attachment shows the number of exceedances of the state and federal ozone standards and maximum and second highest ozone concentrations for all of the District's monitoring areas for the year 1995. Table A-5 shows the number of exceedances of the federal ozone standard at all District air monitoring sites, for all years for which data was available during the period 1976-1994. Seasonal averages of daily maximum 1-hour ozone concentrations are given in Table A-6, and Tables A-7 and A-8 show the number of episodes and the maximum 1-hour ozone concentrations.

Seasonal Variation

Because photochemical reactions require sunlight to proceed, ozone formation is favored by strong solar radiation. Solar radiation is more intense and of longer duration, and temperature inversions are stronger and more persistent, in summer than in winter. This causes ozone concentrations to be higher in summer than in winter. Peak ozone concentrations generally occur near the middle of the day during the period May through October.

Figure 2-5 shows the three-year average monthly number of exceedances of the federal ozone standard for the years 1993-1995 in the East San Gabriel Valley, frequently the high ozone area of the Basin. The standard was exceeded most often in the summer and early fall months, June-September, and least often in the late fall and winter months of January, February, November and December. Other areas of the District have similar seasonal patterns.

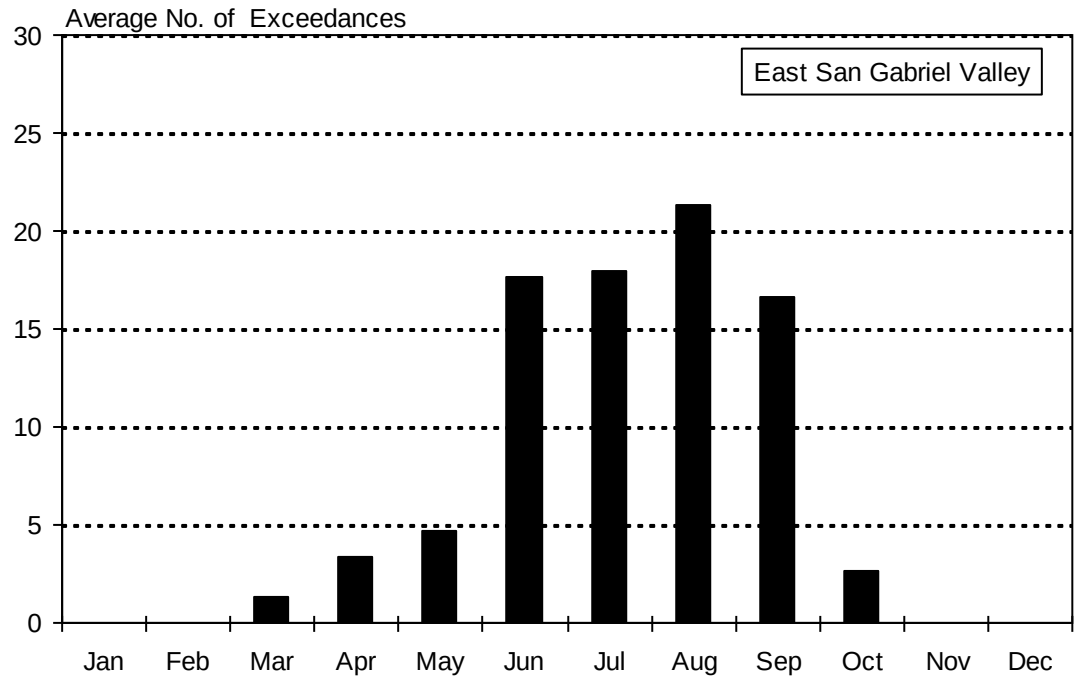


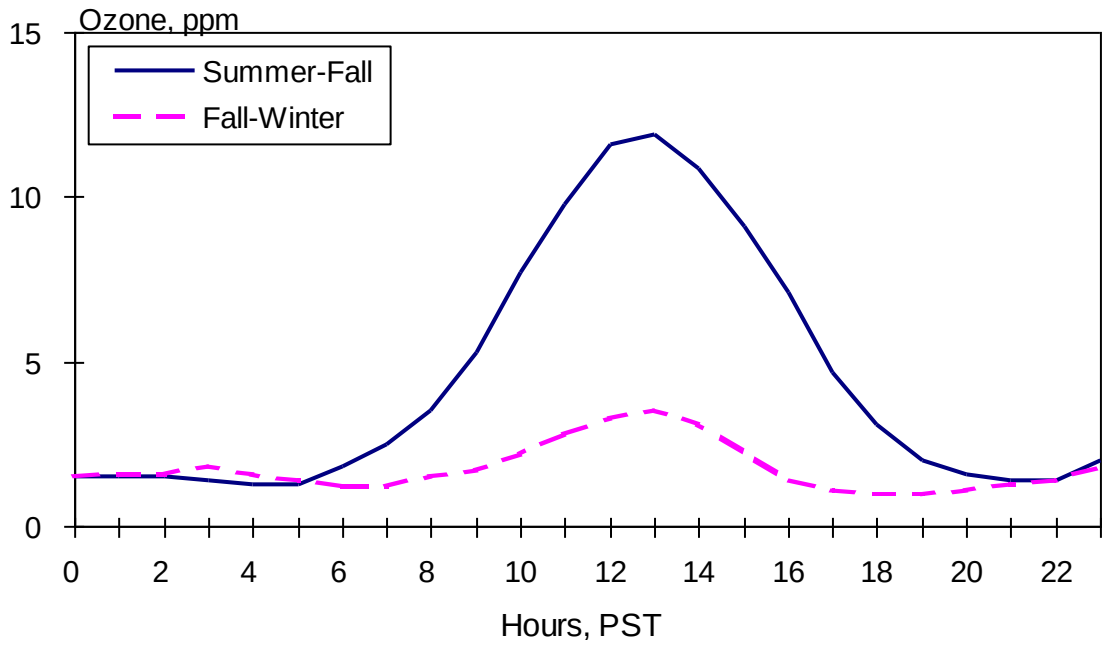
FIGURE 2-5

OZONE
Seasonal Variation, 1993-1995
Average Monthly Exceedances of Federal Standard

Diurnal Variation

Because time and sunlight are required for the precursor organic gases and nitrogen oxides to react to form ozone, peak ozone concentrations usually occur from afternoon to early evening. By this time, the prevailing sea breeze has moved the polluted air mass miles inland from the major sources of precursor emissions. In Figures 2-6a to 2-6c, the average ozone concentrations for each hour of the day at representative areas in the Basin are shown for the summer months (June - September) and fall-winter months (January, February, November and December) of 1995.

Figure 2-6a shows the diurnal variation in average ozone concentration in East San Gabriel Valley, an area typical of the inland valley areas of the Basin with highest ozone concentrations. In fall-winter, ozone concentrations were low at all hours, while in summer concentrations were low at night, increasing rapidly after sunrise and peaking in the early afternoon. Even on episode days, ozone concentrations are usually low at night and remain relatively low until mid-morning.



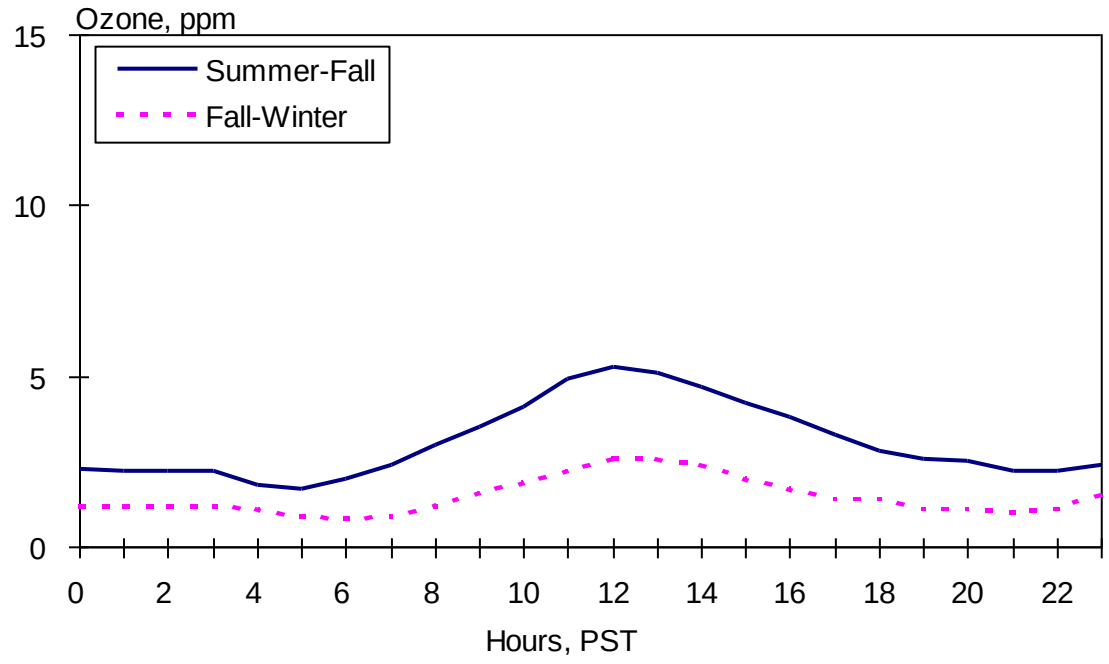
a) East San Gabriel Valley

FIGURE 2-6

OZONE
Diurnal Variation, 1995 Average Concentration for Each Hour

Figures 12b and 12c show diurnal variation in ozone concentration in a coastal area and in the Basin's mountain area. A pattern similar to that in San Gabriel Valley was observed in these other areas of the Basin. The peak concentration, however, occurred later in the day for the location further downwind, and earlier in the day for the coastal area. Examining diurnal variation throughout the District, the time of the peak concentrations was found to vary from noon - 1 p.m. PST in coastal-central Los Angeles County, to 4-7 p.m. in the farthest inland Basin, SSAB and MDAB locations.

b)



South Coastal Los Angeles County

c) Central San Bernardino Mountains

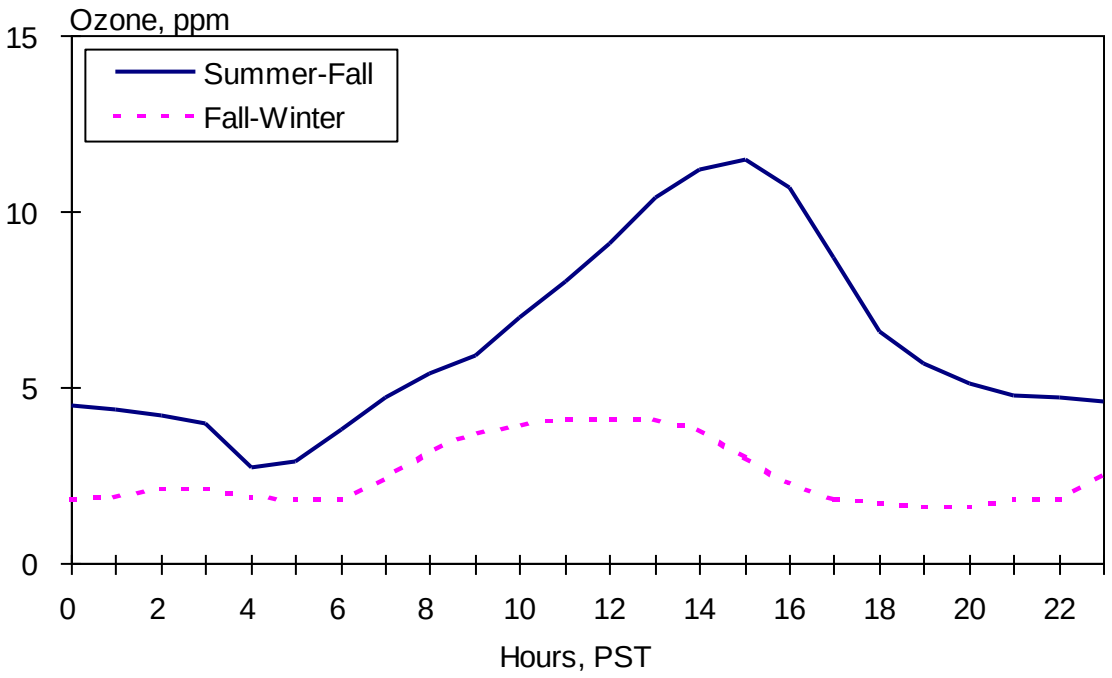


FIGURE 2-6

OZONE

Diurnal Variation, 1995 Average Concentration for Each Hour

Day-of-Week Variation

Figure 2-7 shows the three-year average number of exceedances of the federal ozone standard for each day of the week in the East San Gabriel Valley area for the period 1993-1995. The number of exceedances was higher on weekends than on weekdays. Day-of-week variation in other District areas generally shows a similar pattern. Average ozone concentrations also show a pattern similar to the average number of exceedances, with weekends tending to be higher than weekdays.

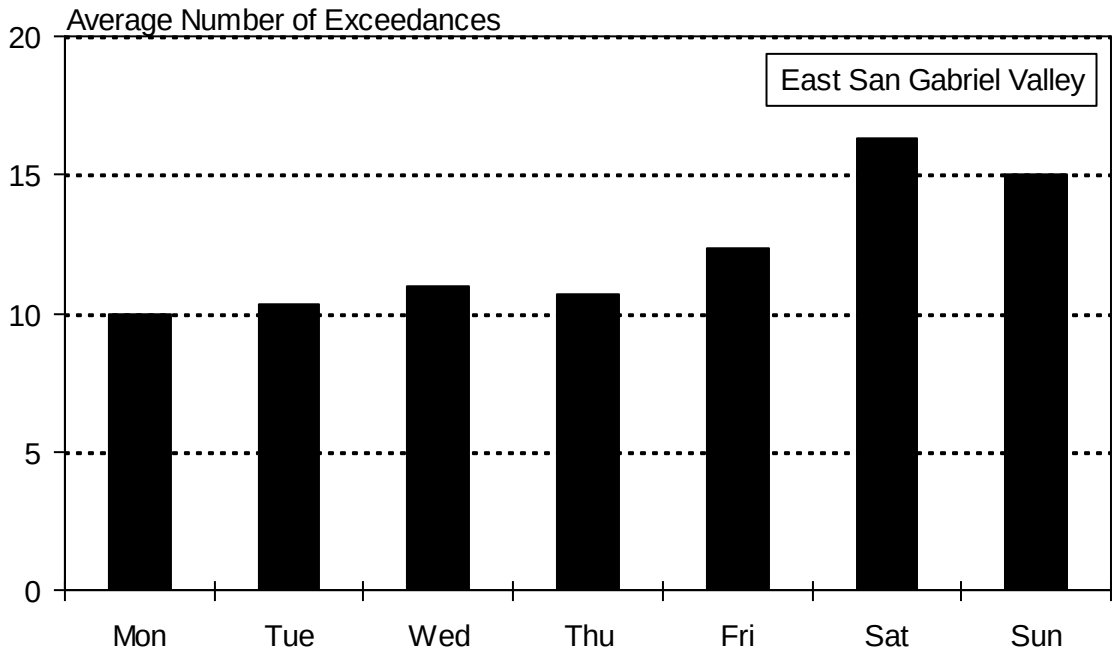


FIGURE 2-7

OZONE
Day-of-Week Variation, 1993-1995
Exceedances of Federal Standard by Day of Week

Possible New Federal Standard

Recent studies have shown that even relatively low concentrations of ozone, if continued for 6-7 hours, can significantly reduce lung function in normal healthy people when exercising. Animal studies show repeated exposure to ozone over periods of months to years can cause permanent damage to lungs and accelerate loss of lung function and aging.

Based on long-term ozone exposure studies reporting health effects associated with 6-to 8-hour exposures at levels below the level of the current 1-hour standard, the U.S. Environmental Protection Agency is considering a new federal ozone standard based on an

8-hour averaging time. The recommended range is an 8-hour average ozone concentration between 0.07 and 0.09 ppm. However, the form of the standard is still being evaluated.

A preliminary evaluation of the effect of the proposed standard on the attainment of this region with federal ozone standards has been done, by comparing the number of exceedances of the current standard (0.12 ppm 1-hour average) with the number of exceedances of 8-hour average concentrations of 0.07, 0.08, or 0.09 ppm. It has been assumed that the form of the new standard is the same as the current standard, i.e. one allowable exceedance per year. Under this scenario, the compliance status of different areas in the Basin, SSAB and MDAB would vary depending on the level of the standard selected (0.07, 0.08, or 0.09 ppm). However, there would be a greater number of days exceeding a new federal standard in this range for the Basin as a whole, compared to the current standard.

If individual areas within the Basin are considered, all areas would have a greater number of days exceeding a new federal standard of 0.07 ppm. At 0.09 ppm, there would be fewer exceedances in Orange County and most of the coastal-central areas of Los Angeles County, but more exceedances in the SSAB and MDAB areas and areas in the inland valleys and adjacent mountains.

Carbon Monoxide (CO)

Properties

Carbon monoxide (CO) is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere, and is produced by both natural processes and human activities. In remote areas far from human habitation, CO occurs in air at an average background concentration of 0.04 ppm, primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline. In 1993, 97% of the CO emitted into the Basin's atmosphere was from mobile sources. Consequently, CO concentrations are generally highest in the vicinity of major concentrations of vehicular traffic.

Carbon monoxide is a primary pollutant, meaning that it is directly emitted into the air. It is not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations, due to variations in the rate at which CO is emitted, and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at the time of morning rush hour traffic.

When CO is inhaled in sufficient concentration, it can displace oxygen and bind with the hemoglobin in the blood, reducing the capacity of the blood to carry oxygen. Individuals most at risk from the effects of CO include heart patients, fetuses (unborn babies), smokers, and people who exercise heavily. Normal healthy individuals are affected at higher concentrations, which may cause impairment of manual dexterity, vision, learning ability, and performance of work. The results of studies concerning the combined effects of CO and other pollutants in animals have shown a synergistic effect after exposure to CO and ozone.

Current Carbon Monoxide Air Quality

The District currently monitors carbon monoxide air quality at 20 of its 35 air monitoring stations. The highest CO concentrations are found in coastal and central Los Angeles County. The highest 8-hour average CO concentration in 1995 (13.9 ppm) was recorded in the South Central Los Angeles County area and was 146% of the federal standard and 153% of the state standard. This was lower than the maxima recorded for the previous three years. The highest 1-hour average concentration in 1995 (17 ppm) was 47 percent of the federal and 81 percent of the state 1-hour standards. Concentrations in the less urbanized areas of the Basin, SSAB and MDAB were well below the standards. There were a total of 16 days on which one or more locations in the Basin exceeded the federal standard, and 18 days on which the state standard was exceeded.

Figure 2-8 shows the number of days exceeding the federal 8-hour CO standard in 1995 in each area of the Basin. The areas which exceeded were restricted to the central part of Los Angeles County where population and vehicle traffic are greatest. The federal 8-hour standard was exceeded most frequently in the South Central Los Angeles County area of the Basin (13 days). The federal 1-hour standard (1-hour average CO > 35 ppm) was not exceeded.

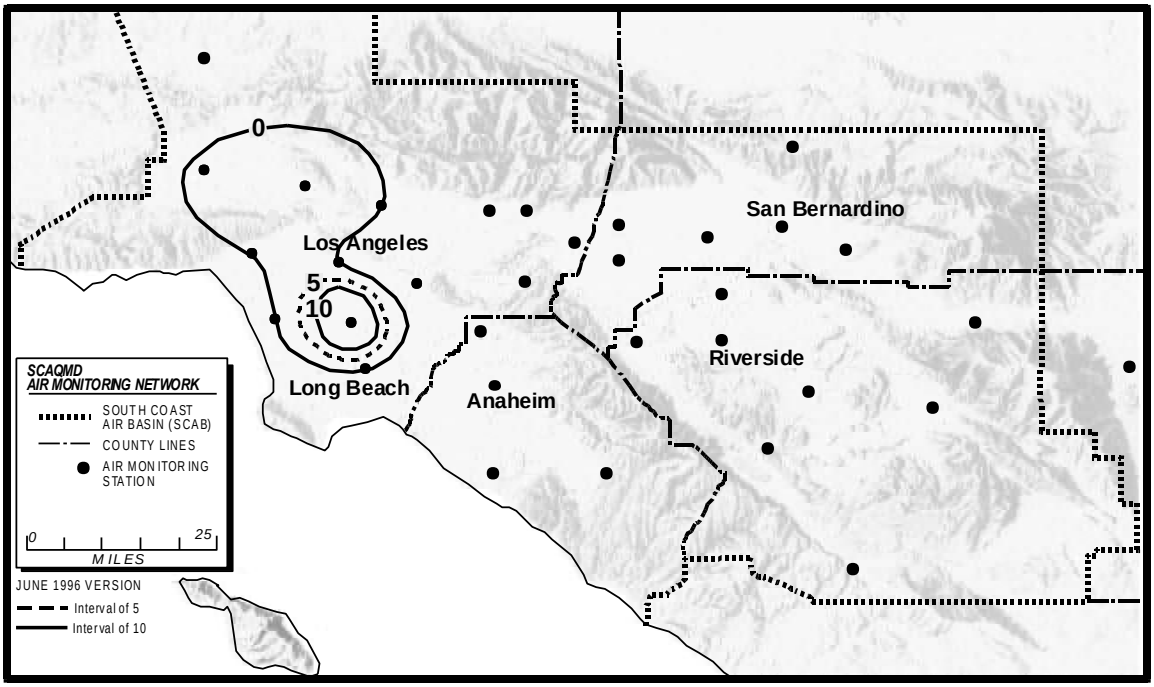


FIGURE 2-8

CARBON MONOXIDE - 1995
Number of Days Exceeding Federal Standard
(8-hour average CO ≥ 9.5 ppm)

Figure 2-9 shows the number of days exceeding the state standard in 1995. The area where the state 8-hour standard was exceeded most frequently was South Central Los Angeles County (15 days). The state 1-hour standard (1-hour CO > 20 ppm) was not exceeded.

There were no exceedances of the stage I episode (federal alert) level (8-hour average CO ≥ 15 ppm) in 1995. However, carbon monoxide concentrations exceeded the episode level in 1994.

Table A-9 in the Attachment shows the number of exceedances of the state and federal standards and maximum 1-hour and 8-hour carbon monoxide concentrations for all of the District's monitoring areas in 1995. The annual number of days exceeding the federal carbon monoxide standard at all monitoring sites during the period 1976-1994 is given in Table A-10. Tables A-11 and A-12 show the annual number of federal alerts and maximum CO concentrations for all sites for the years 1976-1994.

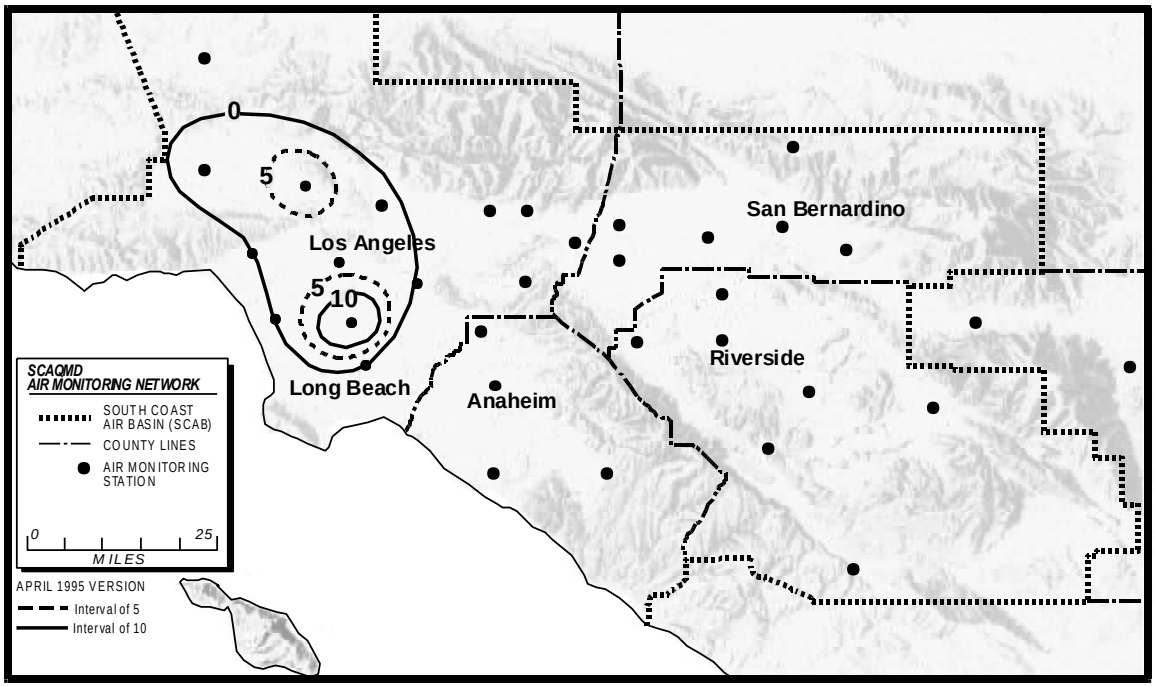


FIGURE 2-9

CARBON MONOXIDE - 1995
Number of Days Exceeding State Standard
(8-hour average CO > 9.0 ppm)

Seasonal Variation

Carbon monoxide concentrations in the Basin tend to be highest in the late fall and winter months. This is due to meteorological conditions which occur more frequently in late fall and winter, specifically light winds and late night and early morning surface inversions, which inhibit the vertical dispersion of pollutants. Figure 2-10 shows the three-year average monthly number of exceedances of the federal carbon monoxide standard for the years 1993-1995 in the South Central Los Angeles County area. In the late fall and winter months, the average number of exceedances for the three years 1993-1995 ranged from less than one day in October to 6 days in November and December. No exceedances of the carbon monoxide standards were recorded during April through September of the years 1993-1995.

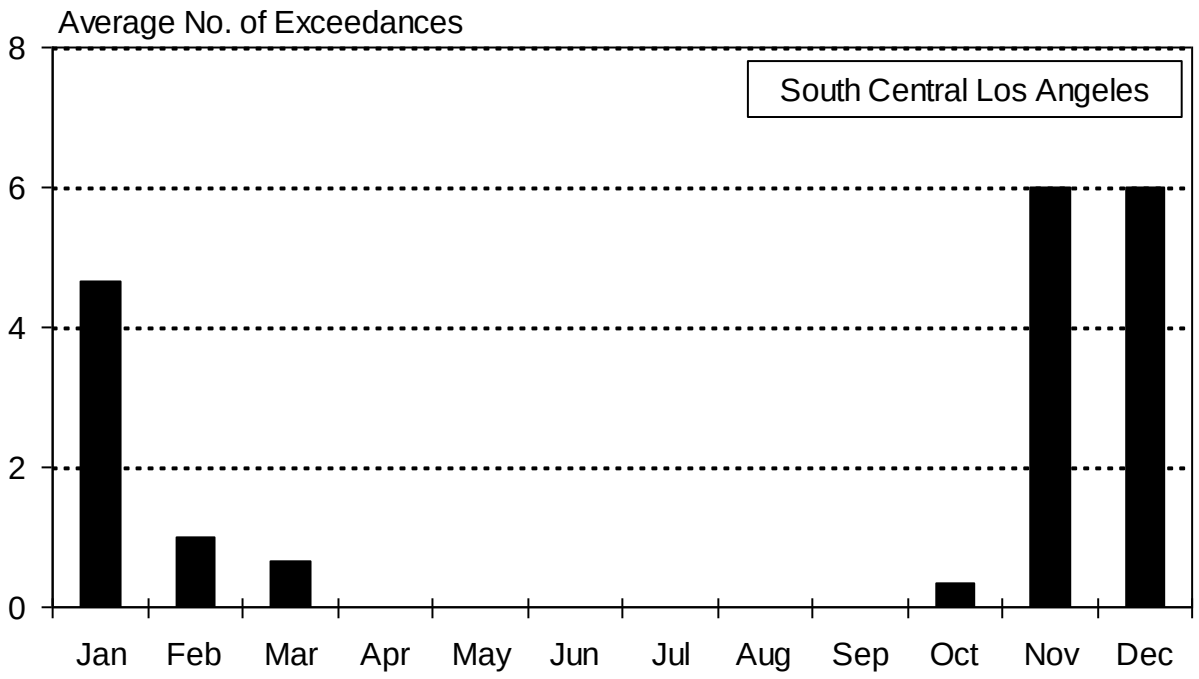


FIGURE 2-10

CARBON MONOXIDE
Seasonal Variation, 1993-1995
Average Monthly Exceedances of Federal Standard

Diurnal Variation

Figure 2-11 shows the average concentration of carbon monoxide for each hour of the day in the South Central Los Angeles County area for the "summer" months (June-September) and "winter" months (January, February, November and December) of 1995. On average, the carbon monoxide concentration during the winter months peaked at around 7 a.m., the time of morning rush traffic congestion, with another peak occurring at 10 p.m. Hourly concentrations during the summer months were relatively low at all hours, with the peak concentration for winter averaging more than two times higher than the average peak concentration for summer. The seasonal and diurnal patterns in the South Central Los Angeles County area are typical of those found at most locations in the District.

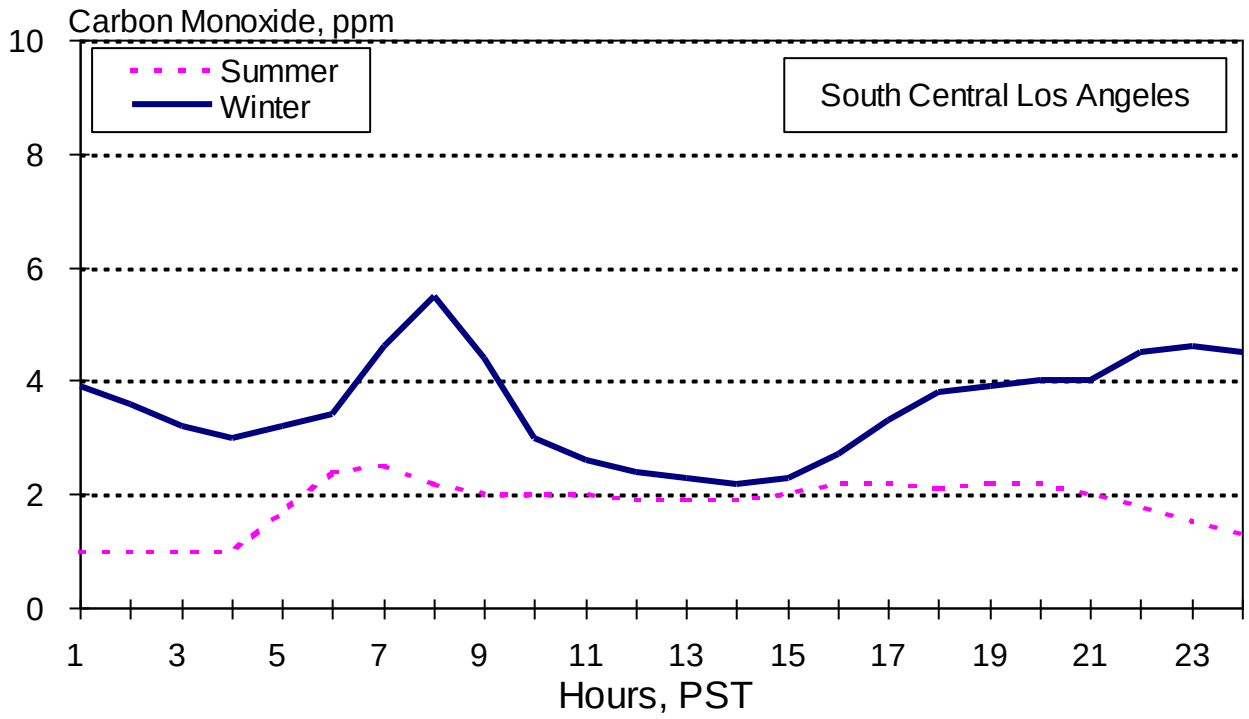


FIGURE 2-11

CARBON MONOXIDE
Diurnal Variation, 1995 Average Concentration for Each Hour

Day-of-Week Variation

Concentrations of carbon monoxide and exceedances of the carbon monoxide standards have been found to vary significantly with day of week.[14,15] This is due to variation in vehicular traffic and CO emissions by day of week. Figure 2-12 shows the average concentrations for each day of the week in the South Central Los Angeles County area during the period 1993-1995. The average concentration for weekends (due primarily to Sunday) was lower than the average concentration for weekdays (Monday to Friday). A similar pattern has been observed for day-of-week variation at most locations in the District.

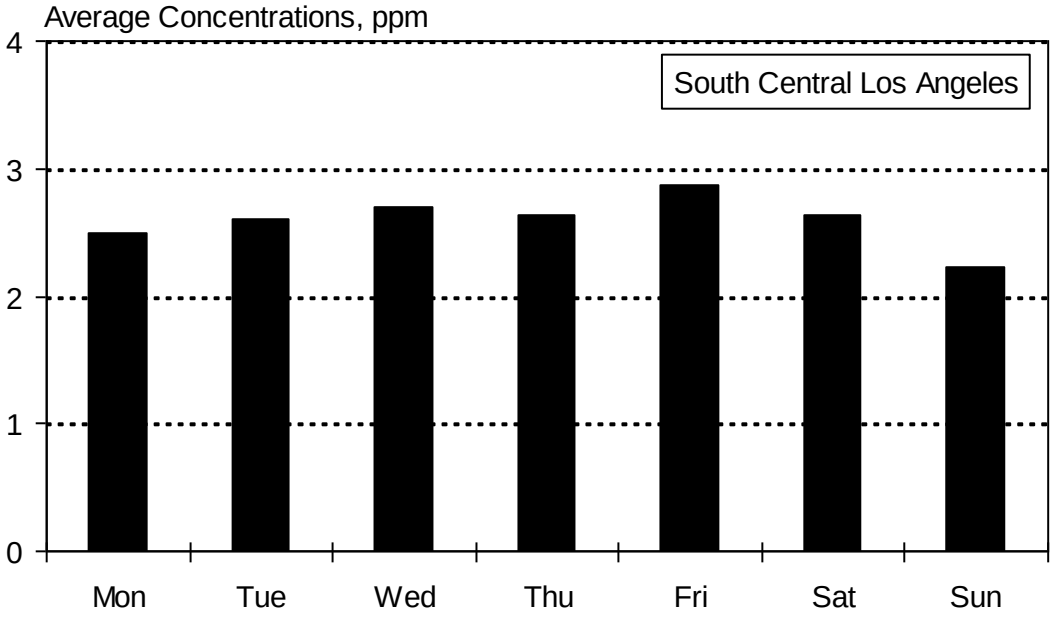


FIGURE 2-12

CARBON MONOXIDE
Day-of-Week Variation, 1993-1995 Average Concentrations by Day of Week

Suspended Particulate Matter (PM_{10})

Properties

Total suspended particulate (TSP) is the name applied to the complex mixture of solid material suspended in the atmosphere. TSP is collected on a glass fiber filter by means of a high-volume sampler. Samples are collected for a 24-hour period every sixth day, and then returned to the District laboratory for chemical analysis for sulfate, nitrate and lead. The federal and state standards for lead and sulfate are based on analyses of TSP samples. In 1995, TSP samples were collected by the District at 15 sites. These samples were analyzed for sulfate and nitrate and were found to contain an average of from 5 to 16 percent sulfate and 13 to 21 percent nitrate, depending on location. Lead concentrations were determined for 11 of the sites, and the average lead concentration ranged from 0.03 to 0.06% of the TSP.

The fine fraction of TSP has greater effects on health and visibility than the coarse fraction. In 1987 EPA adopted PM_{10} (particulate matter with diameter less than about 10 micrometers) standards, which replaced the earlier TSP standards. PM_{10} samples are collected on quartz filters with a size-selective-inlet, high-volume sampler. The District began PM_{10} monitoring in late 1984.

In 1995, the District measured PM_{10} concentrations at 23 locations. At the 9 locations where both PM_{10} and TSP were monitored, PM_{10} averaged 48 to 63% of TSP. PM_{10} samples are routinely analyzed for sulfate and nitrate, and in 1995 sulfates constituted an average of 7 to 18% of PM_{10}, and nitrates constituted 4 to 18% of PM_{10}.

An intensive study of PM_{10} was conducted at six locations in 1995, using special samplers designed to allow detailed chemical analyses of PM_{10}. Figure 2-13 shows the average amounts of sulfate ($SO_4^=$), nitrate (NO_3^-), ammonium (NH_4^+), organic carbon (OC), elemental carbon (EC), sodium (Na^+), chloride (Cl^-), and other materials such as soil components in the PM_{10} samples which were collected during 1995. Sulfates, nitrates, and organic carbon are typically formed in the air by reaction of gaseous precursors such as NO_X, SO_X, VOC (hydrocarbons and related compounds) and ammonia, which are emitted by a variety of sources. Soil-related materials tend to be larger particles which are suspended in the air by human activity or by wind.

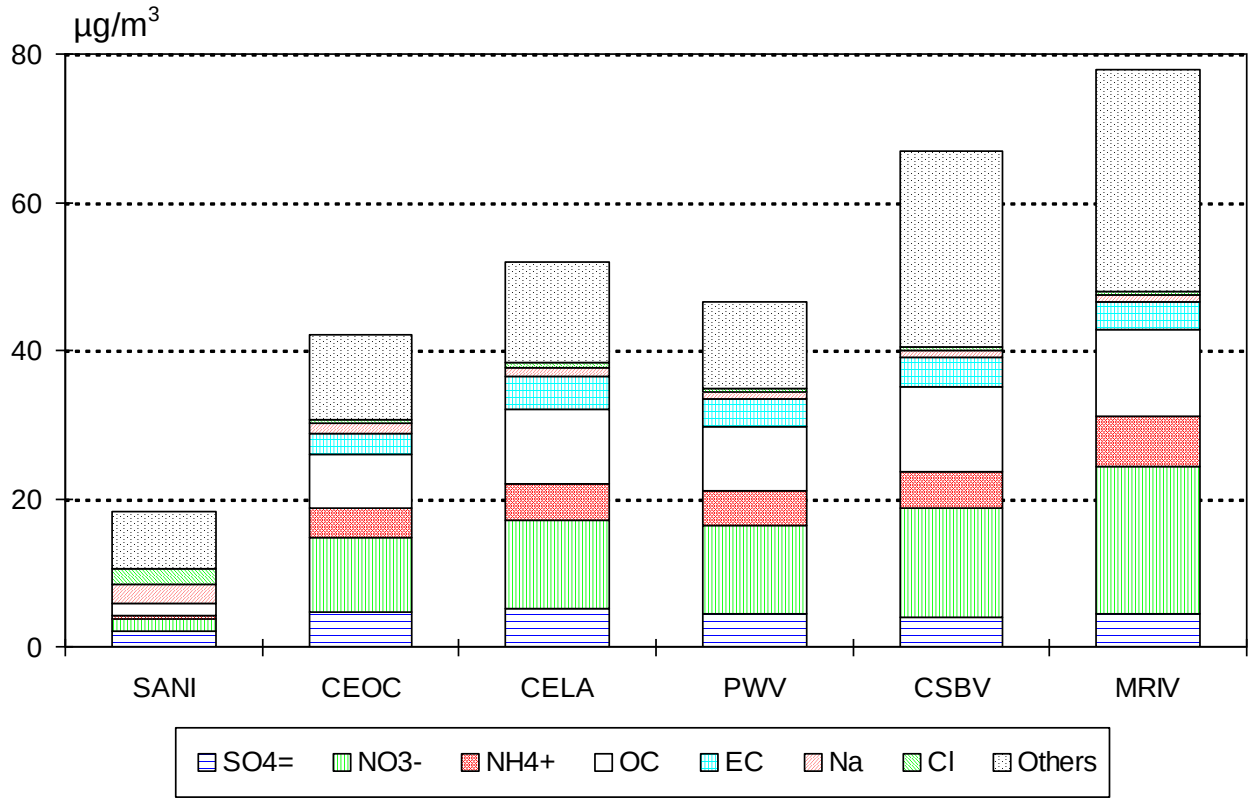


FIGURE 2-13

Chemical Composition of PM_{10} (Preliminary data, subject to revision)

San Nicolas Island, 80 miles offshore and remote from the Basin's urban areas, recorded a very low average PM_{10} (18 µg/m^3), which contained a relatively large fraction of Na and Cl (25% of the PM_{10}). The relatively high Na and Cl is due to the influx of sea salt from the surrounding ocean. The concentrations of, and in most cases percentages of, the other

components (NH_4^+, NO_3, $SO_4^=$, OC, EC, crustal material) were low compared to mainland Basin sites.

PM_{10} concentrations measured at five Basin locations in Central Orange County (CEOC), Central Los Angeles County (CELA), Pomona/Walnut Valley (PWV), Central San Bernardino Valley (CSBV), and Metropolitan Riverside County (MRIV) areas recorded PM_{10} concentrations from 42 μg/m^3 to 78 μg/m^3. The five Basin sites contain relatively high proportions of sulfates (6-11%), nitrates (22-26%), organic carbon (15-20%), and elemental carbon (5-8%). These materials derive from stationary or mobile sources of pollution in the Basin. The amount of soil-related material in the air is also greater (17% to 31%), due to suspension of soil in the air by human activities such as re-entrainment of road dust and construction.

Current PM_{10} Air Quality

Figure 2-14 shows 1995 annual average (arithmetic mean) PM_{10} concentrations in the Basin. The area which exceeded the federal standard (inside the dashed line) is limited to the areas of Riverside and San Bernardino Counties close to Metropolitan Riverside County. The maximum annual average recorded (69.0 μg/m^3 in the Metropolitan Riverside County area) was 138% of the federal standard.

The federal 24-hour standard was exceeded over a larger area, with exceedances occurring in all four Basin counties near their juncture (Figure 2-15). The location which exceeded most frequently (Metropolitan Riverside County) exceeded on 6.6% of days sampled. The maximum 24-hour average concentration (219 μg/m^3 recorded in Metropolitan Riverside County) was 145% of the federal 24-hour standard.

The more stringent state annual standard was exceeded in a much larger area (Figure 2-16) than the federal annual standard, with most of the Basin and part of the Riverside County SSAB (not shown) recording annual average concentrations above the standard. The maximum annual average (annual geometric mean PM_{10} 51.8 μg/m^3, recorded at Metropolitan Riverside County) was 172% of the state annual standard.

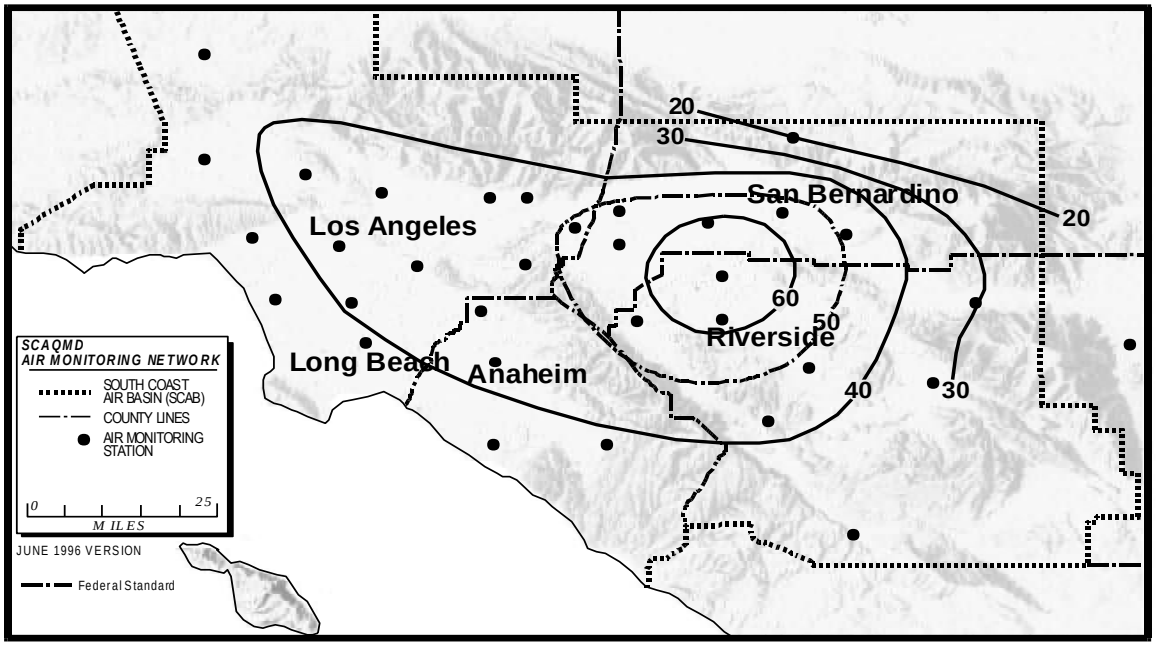


FIGURE 2-14
Suspended Particulate Matter (PM_{10}) - 1995 Annual Arithmetic Mean, $\mu g/m^3$

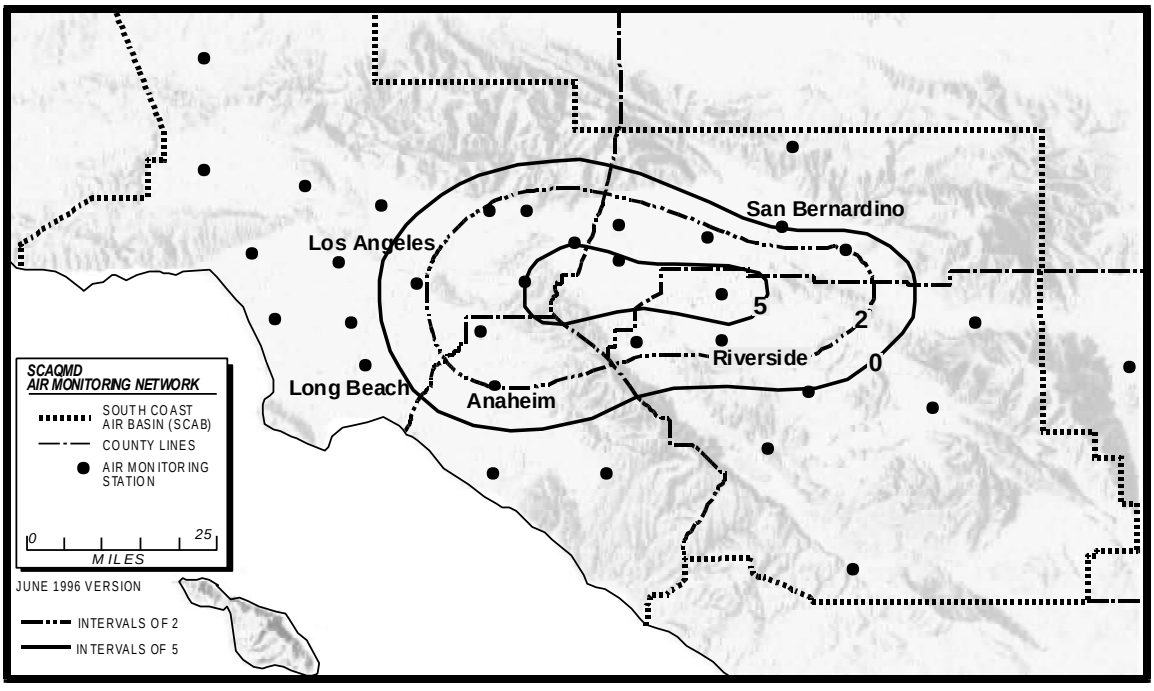


FIGURE 2-15
Suspended Particulate Matter (PM_{10}) - 1995 Percent of Days Exceeding Federal Standard

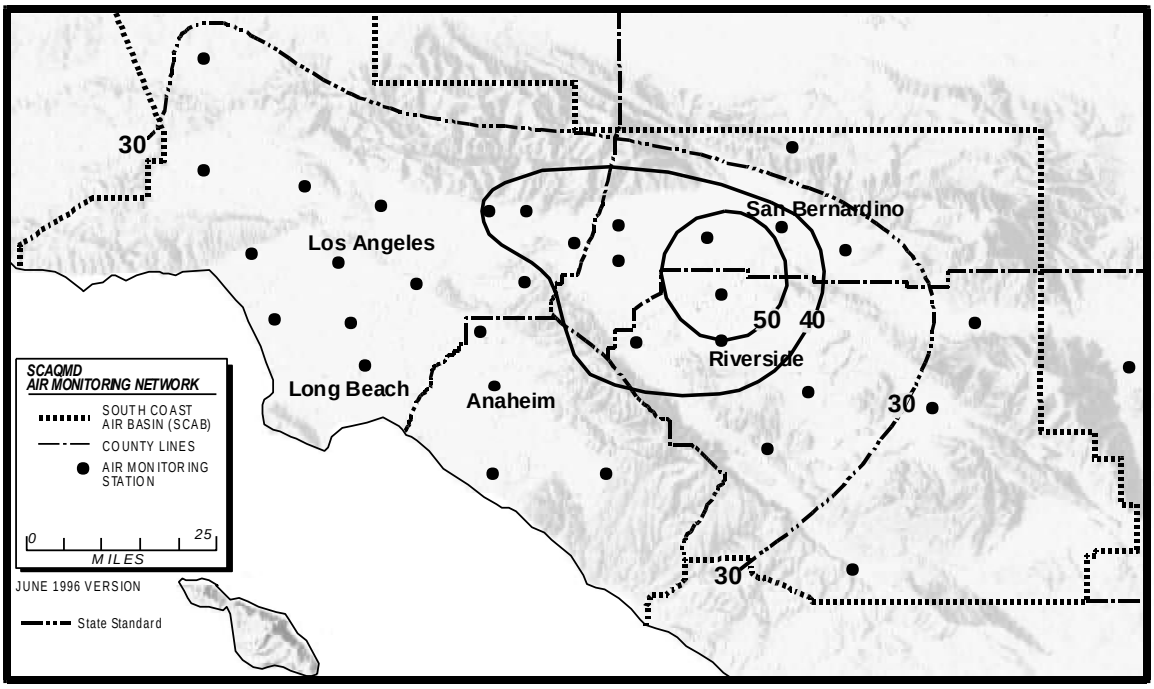


FIGURE 2-16

Suspended Particulate Matter (PM_{10}) - 1995 Annual Geometric Mean, $\mu g/m^3$

The state 24-hour PM_{10} standard was exceeded throughout the District, on from 2% to 62% of days depending on location (Figure 2-17). The standard was exceeded most frequently in the Basin's inland valleys in an area centering around Metropolitan Riverside County. Exceedances occurred least frequently in the coastal areas and in areas of the Basin well removed from urban areas. The maximum 24-hour average was 429% of the state 24-hour standard.

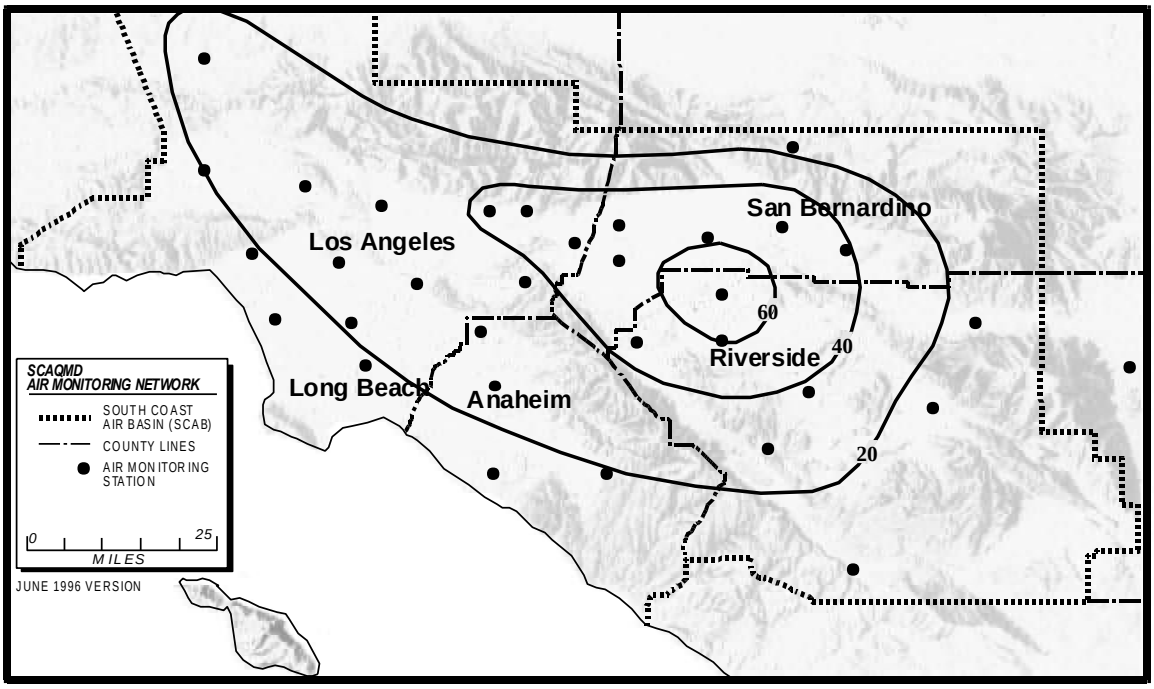


FIGURE 2-17

Suspended Particulate Matter (PM_{10}) - 1995
Percent of Days Exceeding State Standard

The 1995 annual maximum and average concentrations and the number of days exceeding state and federal PM_{10} standards for each monitoring station are given in Table A-14. The annual arithmetic and geometric means, the number of days exceeding state and federal standards, and the maximum 24-hour average concentration for previous years are given in Tables A-15 to A-18.

Seasonal and Day of Week Variation in PM_{10}

Analyses of seasonal variations in monthly average PM_{10} and the percent of days exceeding the state PM_{10} standard in various areas of the District have been presented previously.[14,16] Briefly, the monthly average PM_{10} concentration and the monthly average percent of days exceeding the state standard tended to peak in summer and fall in the inland valley area of the Basin where PM_{10} concentrations were highest. However, in the South Coastal Los Angeles County area, monthly average PM_{10} concentrations and the percentage of days exceeding the state standard were highest in late fall and winter months.

Day-of-week variations have also been examined, and it was found that the average weekend concentrations were lower than the weekday average at all nine of the Basin and SSAB locations examined.[15,16] Diurnal variations proved to be complex and location dependent.[14,16]

Seasonal and day-of-week variations in exceedances of the federal standard were not examined previously. Since exceedances of the federal standard are relatively infrequent, and samples are only collected every sixth day, there was not a sufficiently large sample of days exceeding the standard to accurately determine seasonal and day-of-week variation for most individual locations for the last few years. However, if exceedances in the entire Basin over the whole ten-year period of record are considered, seasonal and day-of-week patterns do emerge.

Figure 2-18 shows the total number of days in each month exceeding the federal standard at one or more Basin locations over the period 1985-1995. The greatest number of federal standard exceedances occurred in the fall and winter months.

Figure 2-19 shows the total number of days exceeding the federal standard for each day of the week during the period 1985-1995. The total number of days exceeding the federal standard for each of the five weekdays was higher than for the two weekend days.

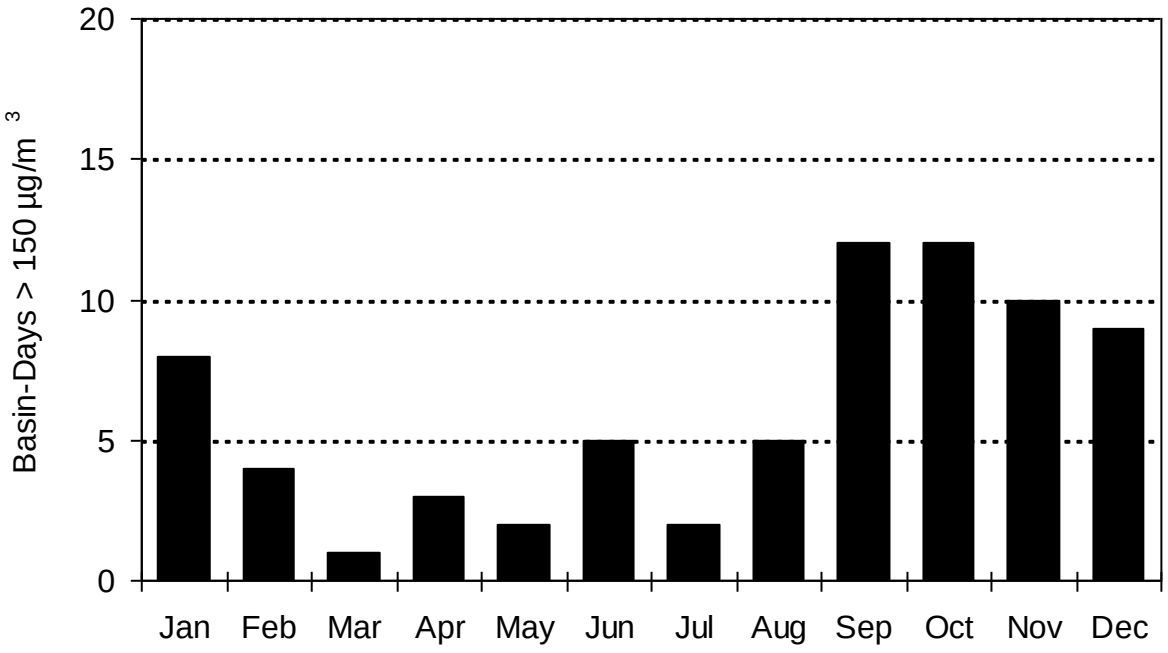


FIGURE 2-18

Days Exceeding Federal PM_{10} Standard by Month, 1985 - 1995

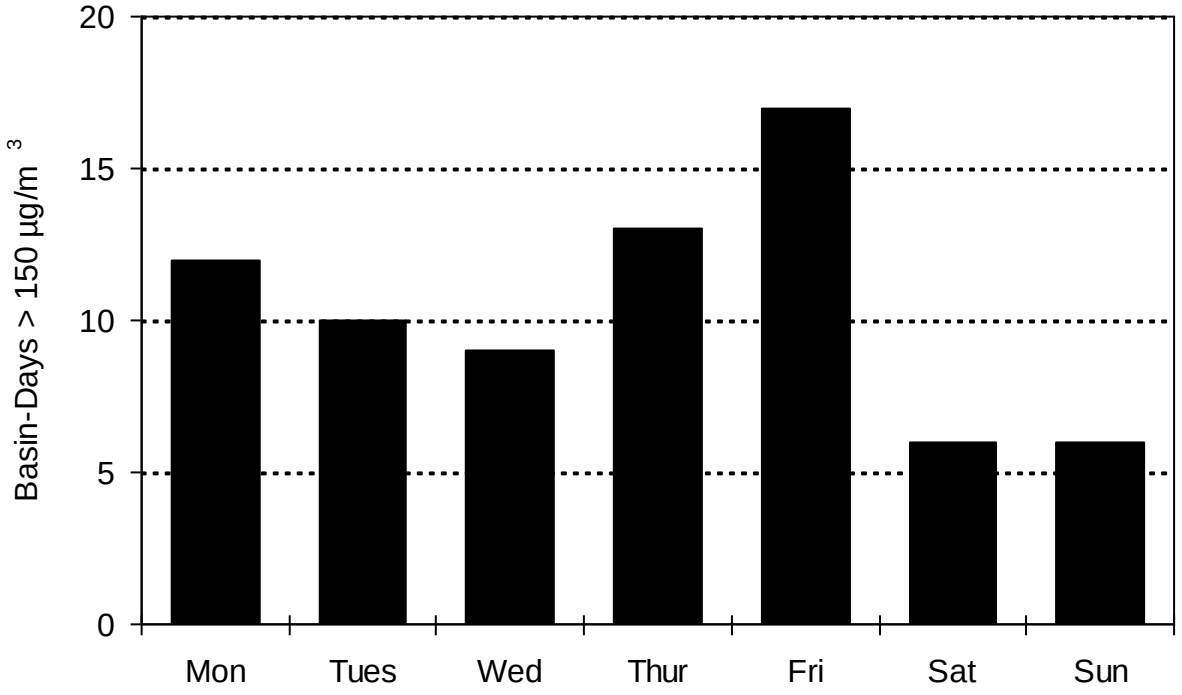


FIGURE 2-19

Days Exceeding Federal PM_{10} Standard by Day of Week

Possible New PM2.5 Standards

EPA is considering the adoption of particulate standards based on $PM_{2.5}$ (particulate matter with diameter less than about 2.5 micrometers). The suggested range for a 24-hour $PM_{2.5}$ standard is 18 - 65 µg/m^3 and the suggested range for the annual $PM_{2.5}$ standard is 12.5 - 20 µg/m^3. Preliminary evaluation of $PM_{2.5}$ data for five Basin locations suggests that the percent of days exceeding the $PM_{2.5}$ standard could be greater than for the current standard.

Nitrogen Dioxide (NO_2)

Properties

Nitrogen dioxide (NO_2) is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO), a colorless gas which is formed from the nitrogen (N_2) and oxygen (O_2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels, reacts rapidly with the oxygen in air to give nitrogen dioxide. Nitrogen dioxide is responsible for the brownish tinge of polluted air. The two gases, nitric oxide and nitrogen dioxide, are referred to collectively as oxides of nitrogen (NO_x). In the presence of sunlight, nitrogen dioxide reacts to give nitric oxide and an oxygen atom. The oxygen atom can react further to give ozone, via a complex series of chemical reactions involving hydrocarbons. Nitrogen

dioxide may also react to give nitric acid (HNO_3) which reacts further to give nitrates, which are a component of PM_{10}.

Nitrogen dioxide is a respiratory irritant and reduces resistance to respiratory infection. Children and people with respiratory disease are most susceptible to its effects.

Current Nitrogen Dioxide Air Quality

In 1995, the District monitored nitrogen dioxide concentrations at 22 locations in the Basin. Federal and state standards for nitrogen dioxide were not exceeded at any location. The federal standard has not been exceeded in the Basin since 1991, and the more stringent state standard was last exceeded in 1993.

Table 2-1 below shows the 1995 maximum annual average nitrogen dioxide concentrations by Basin and County. The maximum annual average nitrogen dioxide concentration (0.0464 ppm recorded in the East San Gabriel Valley area of Los Angeles County and in the Northwest San Bernardino Valley area) was 87% of the federal standard. Concentrations in the downwind MDAB and SSAB areas were much lower, with maximum annual average concentrations less than half the maximum in the Basin. The maximum 1-hour average concentration (0.24 ppm in Central Los Angeles) was 92% of the state standard.

TABLE 2-1

1995 Maximum Annual Average Nitrogen Dioxide Concentrations

Basin/County	MaximumAnnual Avg. ppm	Percent Federal Standard	Area
South Coast Air Basin			
Los Angeles	0.0464	87%	East San Gabriel Valley
Orange	0.0391	73%	North Orange County
Riverside	0.0306	57%	Metropolitan Riverside Co.
San Bernardino	0.0464	87%	Northwest San Bernardino V.
Mojave Desert Air Basin			
Los Angeles	0.0193	36%	Antelope Valley
Salton Sea Air Basin			
Riverside	0.0223	42%	Coachella Valley

More detailed statistics for each individual area of the District are given in the Attachment to this report. The 1995 annual average concentrations and maximum 1-hour average concentrations for each area are given in Table A-19. The annual averages, number of days exceeding the state standard, and maximum 1-hour average concentrations for previous years are given in Tables A-20 to A-22.

Though the state and federal standards were not exceeded in 1995, nitrogen dioxide is still a concern since it is a precursor to both ozone and PM_{10}. Further control of oxides of nitrogen will be required to attain the ozone and PM_{10} standards.

Sulfur Dioxide (SO_2)

Properties

Sulfur dioxide (SO_2) is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H_2SO_4), which contributes to acid precipitation, and sulfates, which are a component of PM_{10}. Most of the SO_2 emitted into the atmosphere is produced by the burning of sulfur-containing fuels.

At sufficiently high concentrations, sulfur dioxide affects breathing and the lungs' defenses, and can aggravate respiratory and cardiovascular diseases. Asthmatics and people with chronic lung disease or cardiovascular disease are most sensitive to its effects. Sulfur dioxide also causes plant damage, damage to materials, and acidification of lakes and streams.

Current Sulfur Dioxide Air Quality

In 1995, sulfur dioxide was measured at nine Basin locations. No violations of federal or state standards occurred. The federal standards were last exceeded in the 1960's and the state standards were last exceeded in 1990 and 1984.

The maximum 24-hour average SO_2 concentrations recorded in the District in 1995 are shown in Table 2-2 below. The highest 24-hour average SO_2 concentration (0.018 ppm in South Coastal Los Angeles County) was 13% of the federal 24-hour standard. The highest 1-hour average (0.14 ppm in South Coastal Los Angeles County) was 54% of the state standard. The maximum annual average concentration (0.003 ppm in the South Central Los Angeles County area) was 10% of the federal standard.

Detailed statistics - maximum 1-hour, maximum 24-hour, and annual average SO_2 concentrations for each location monitored - for 1995 are shown in Table A-23 in the Attachment. Annual average and maximum 1-hour average concentrations for previous years are given in Tables A-24 and A-25.

While sulfur dioxide concentrations in the Basin no longer exceed standards, SO_2 is a precursor of PM_{10} and sulfate. The Basin did exceed the sulfate and PM_{10} standards in 1995.

TABLE 2-2

1995 Maximum 24-Hour Average Sulfur Dioxide Concentrations

Basin/County	Maximum 24-hr Avg. ppm	Percent Federal Standard	Area
South Coast Air Basin			
Los Angeles	0.018	13%	South Coastal L.A. Co.
Orange	0.010	7%	North Orange Co.
Riverside	0.006	4%	Metro. Riverside Co.
San Bernardino	0.010	7%	Central San Bernardino V.
Mojave Desert Air Basin			
Los Angeles	N.D.		
Salton Sea Air Basin			
Riverside	N.D.		

N.D. = No Data. Historical measurements indicate concentrations are below standard.

Sulfates ($SO_4^=$)

Properties

Sulfates are chemical compounds which contain the sulfate ion ($SO_4^=$), and are part of the mixture of solid materials which make up PM_{10} and TSP. Most of the sulfates in the atmosphere are produced by oxidation of sulfur dioxide. Oxidation of sulfur dioxide yields sulfur trioxide (SO_3) which reacts with water to give sulfuric acid (H_2SO_4), which contributes to acid precipitation. The reaction of sulfuric acid with basic substances such as ammonia yields sulfates, a component of PM_{10}.

Current Sulfate Air Quality

In 1995 sulfate concentrations were measured at 15 Basin locations. Table 2-3 shows the 1995 maximum 24-hour average concentrations in the District by Basin and County. The maximum sulfate concentration (26.3 μg/m^3 in the Metropolitan Riverside County area) recorded in the District was 105% of the state standard. The only area to exceed the standard in 1995 was Metropolitan Riverside County. The standard was exceeded on 2% of days sampled.

TABLE 2-3

1995 Maximum 24-Hour Average Sulfate Concentrations

Basin/County	Maximum 24-hr. Avg. μg/m^3	Percent Federal Standard	Area
South Coast Air Basin			
Los Angeles	20.4	82%	Southwest Coastal L.A. Co.
Orange	12.8	51%	Central Orange Co.
Riverside	26.3	105%	Metropolitan Riverside Co.
San Bernardino	13.4	54%	Central San Bernardino Valley
Mojave Desert Air Basin			
Los Angeles	N.D.		
Salton Sea Air Basin			
Riverside	N.D.		

N.D. = No Data. Historical measurements indicate concentrations are below standard.

Table A-26 in the Attachment shows the maximum concentrations of sulfate recorded at each monitoring station in 1995. The percent of days exceeding the standard, and the maximum 24-hour average and annual average concentrations at each location for previous years are given in Tables A-27 to A-29.

Lead (Pb)

Properties

Lead in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric lead in the Basin over the past two decades. However, lead concentrations in excess of the standards have been recorded since 1990 in very localized areas near stationary sources of lead.

Current Lead Air Quality

In 1995 lead concentrations were measured at 11 Basin air monitoring stations, none of which exceeded the state or federal standards. Table 2-4 shows the maximum quarterly average lead concentrations in the District by Basin and County in 1995. The maximum quarterly average lead concentration (0.06 $\mu g/m^3$ at several Los Angeles County sites) was 4% of the federal standard. The maximum monthly average lead concentration was 5% of the state standard.

TABLE 2-4

1995 Maximum Quarterly Average Lead Concentrations

Basin/County	Maximum Qtr. Avg.* $\mu g/m^3$	Percent Federal Standard	Area
South Coast Air Basin			
Los Angeles	0.06	4%	Multiple Sites
Orange	0.04	3%	Central Orange Co.
Riverside	0.04	3%	Metropolitan Riverside Co.
San Bernardino	0.04	3%	Central San Bernardino V.
Mojave Desert Air Basin			
Los Angeles	N.D.		
Salton Sea Air Basin			
Riverside	N.D.		

N.D. = No Data. Historical measurements indicate concentrations are below standard.
* Higher concentrations (up to 0.60 $\mu g/m^3$) were measured in localized areas near sources

In addition to lead measurements at District air monitoring stations, special monitoring was done in the immediate vicinity of several stationary sources of lead. Data from the special monitoring sites showed that higher concentrations were reached in very localized areas

near sources, with a maximum quarterly average (0.60 μg/m^3) that was 40% of the federal standard, and a maximum monthly average (0.62 μg/m^3) that was 41% of the state standard.

Maximum lead concentrations at each of the locations monitored in 1995 are shown in Table A-30 in the Attachment. Maximum quarterly average and monthly average concentrations for previous years are given in Tables A-31 and A-32.

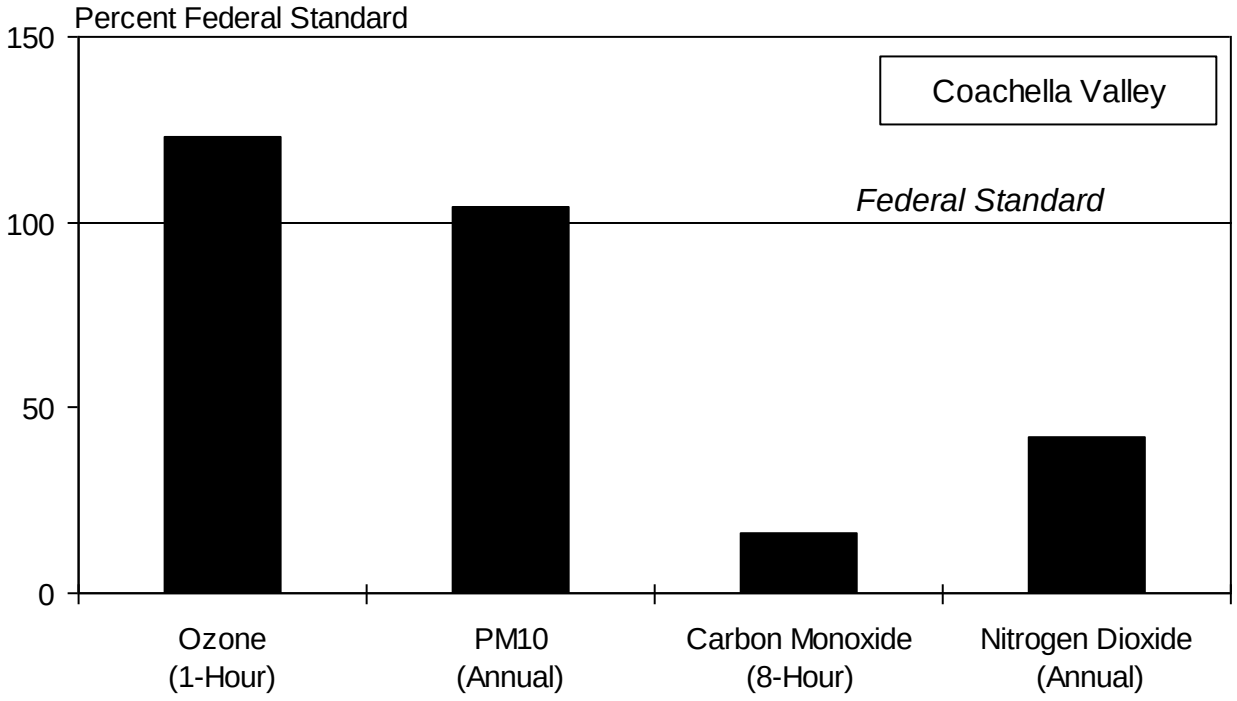
CHAPTER 3

AIR QUALITY IN THE RIVERSIDE COUNTY SSAB

AIR QUALITY IN THE RIVERSIDE COUNTY SSAB

In 1995, the District monitored air quality at two locations in the Riverside County portion of the Salton Sea Desert Air Basin (SSAB), both in the Coachella Valley. One monitoring station was located immediately downwind of the densely populated Basin, and the other was located further downwind in the Coachella Valley. The maximum concentrations recorded at these locations in 1995 are shown in Figure 3-1.

In 1995, pollutant concentrations in the Riverside County SSAB exceeded standards for ozone and PM_{10}. The maximum 1-hour average ozone concentration (0.16 ppm) was 123% of the federal standard. The maximum annual average PM_{10} concentration (52.0 $\mu g/m^3$) was 104% of the federal annual PM_{10} standard. (The annual average PM_{10} includes one high-wind day with a PM_{10} concentration of 199 $\mu g/m^3$, without which the annual average would be 49.5 $\mu g/m^3$, or 99% of the standard.)



* LEAD - the maximum quarterly average was 8% of the federal standard in 1986, the full year monitored.
SULFATE - the maximum 24-hour average was 73% of the state standard in 1989, the last full year monitored.

FIGURE 3-1

1995 Maximum Pollutant Concentrations As Percent of Standards*
Riverside County SSAB

Federal and state standards for carbon monoxide and nitrogen dioxide were not exceeded. The maximum annual average nitrogen dioxide concentration recorded (0.0223 ppm) was

42% of the federal NO_2 standard. The highest 8-hour average carbon monoxide concentration (1.5 ppm) was 16% of the federal standard. No measurements of sulfate or lead were made in the Riverside County SSAB area of the District in 1995. Historical measurements in this area showed concentrations of lead and sulfate to be below the state and federal standards for these pollutants, and monitoring was discontinued. Detailed information on historical air quality and trends in air quality in this area was presented in a previous report.[17]

Ozone (O_3)

Figure 3-2 shows the number of days exceeding the federal ozone standard at District locations in 1995. Ozone in the atmosphere of the Riverside County portion of SSAB is formed principally from precursors emitted upwind. These precursors are emitted in greatest quantity in the coastal and central Los Angeles County areas of the Basin. The Basin's prevailing sea breeze causes polluted air to be transported inland. As the air is being transported inland, ozone is formed, with peak concentrations occurring in the inland valleys of the Basin in an area extending from eastern San Fernando Valley through the San Gabriel Valley into the Riverside-San Bernardino area and the adjacent mountains. As the air is transported still further inland into the desert areas, ozone concentrations decrease.

The federal ozone standard was exceeded on a maximum of 9 days in the Coachella Valley in 1995. Ozone concentrations and the number of days exceeding the federal ozone standard are greatest in summer. There are typically no exceedances during the winter months.[17]

The more stringent state standard was exceeded on a maximum of 49 days in the Coachella Valley in 1995. The health advisory level was exceeded on a maximum of two days. No exceedances of the stage I episode level were recorded in the Riverside County SSAB areas.

The 1995 maximum and second highest ozone concentrations and the number of days exceeding the federal and state ozone standards at the Coachella Valley monitoring stations are compared to the maxima and number of exceedances in other areas of the District in Table A-4 in the Attachment. Maximum and seasonal average concentrations and the number of days exceeding the federal standard and episode levels for previous years are given in Tables A-5 through A-8.

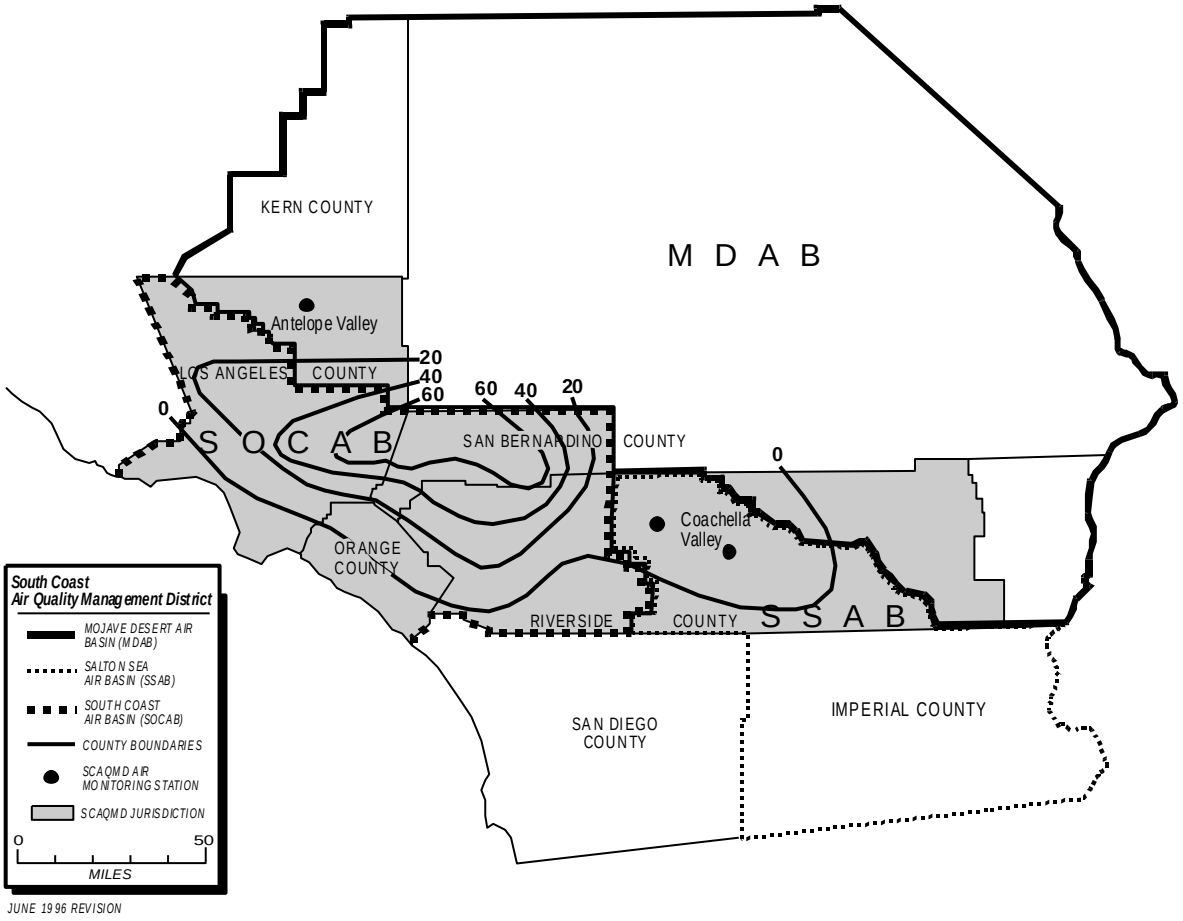


FIGURE 3-2

Ozone - 1995
Number of Days Exceeding Federal Standard in the District

Suspended Particulate Matter (PM_{10})

Although exceedances of the ozone standard in the Coachella Valley area are due to the transport of ozone from the densely populated areas of the Basin upwind, the same cannot be said for PM_{10} exceedances. The Riverside County SSAB is subject to frequent high winds which generate windblown dust that can cause high levels of PM_{10}. PM_{10} is the only pollutant which has sometimes reached higher concentrations in SSAB and MDAB than in the densely populated Basin.

Figure 3-3 shows the percent of days exceeding the federal 24-hour PM_{10} standard in the District in 1995. Though PM_{10} concentrations in the San Gorgonio Pass area at the eastern edge of the Basin remained well below the standard in 1995, the standard was exceeded in the Coachella Valley on 2% of days sampled. (PM_{10} is normally sampled every sixth day, or on about 60 days per year, and exceedances are reported in terms of percent of days

sampled.) The one sample which exceeded the standard in 1995 was collected on a day with high winds which resulted in windblown dust.

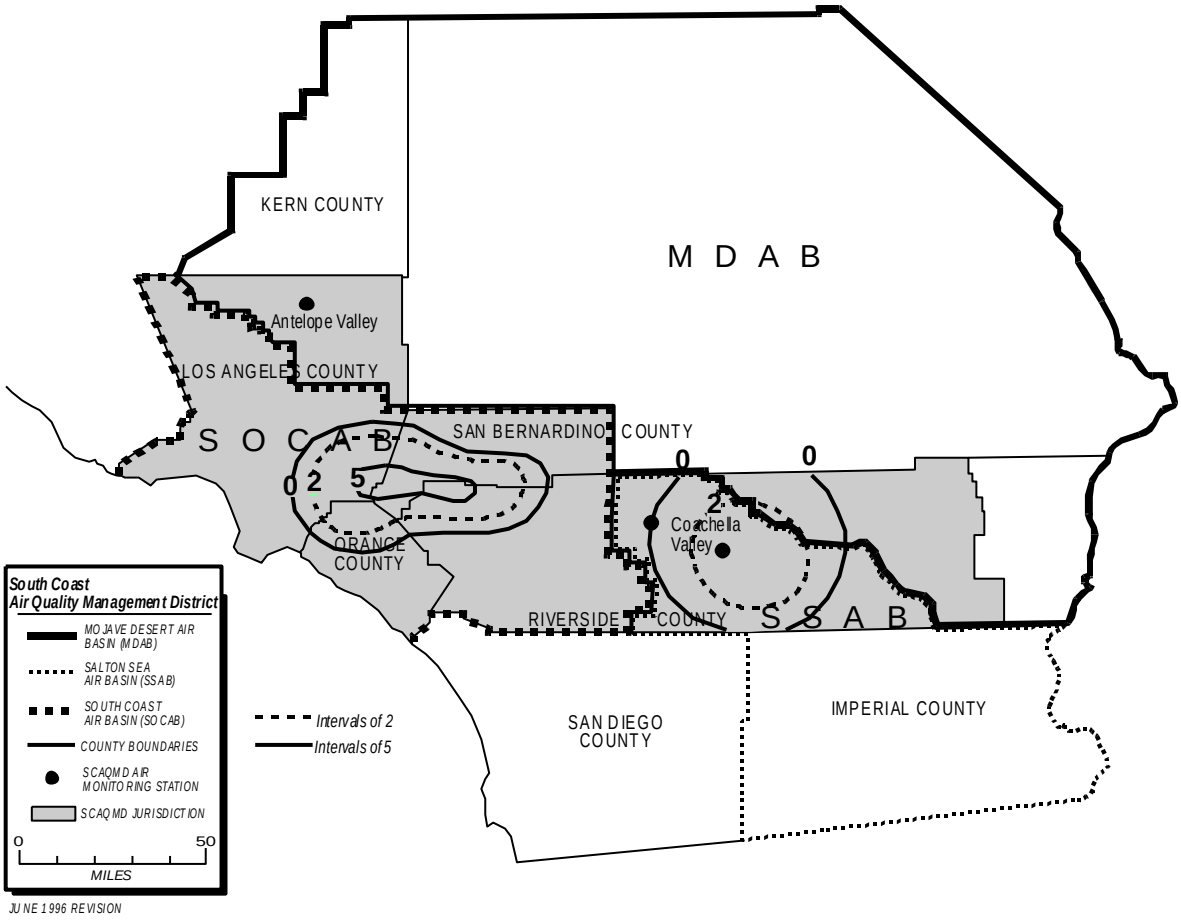


FIGURE 3-3

Suspended Particulate Matter (PM_{10}) - 1995
Percent of Days Exceeding Federal Standard in the District

The federal annual PM_{10} standard was also exceeded in the Riverside County part of SSAB in 1995. The maximum annual average PM_{10} concentration (52.0 µg/m^3) was 104% of the standard. However, if the one high-wind day sample exceeding the 24-hour standard is deleted, the average of the remaining samples is less than the federal annual standard. No violations of the federal standards occurred in the previous two years.

The far more stringent state standard was exceeded at both Riverside County SSAB monitoring locations. In 1995, the state 24-hour PM_{10} standard was exceeded on a maximum of 44% of days at the Coachella Valley monitoring locations. The state annual standard was also exceeded in the Coachella Valley, where the maximum annual average (47.2 µg/m^3, annual geometric mean) was 157% of the state standard.

Analyses of the seasonal distribution of exceedances of the PM_{10} standards showed that the state standard exceedances peaked in summer and reached a minimum in winter. Federal standard exceedances occurred infrequently, and were scattered throughout the year with no obvious seasonal pattern.[17]

The 1995 maximum 24-hour average PM_{10} concentration, number of days exceeding the federal and state 24-hour standards and the annual average PM_{10} concentrations for the Riverside County SSAB and other District air monitoring stations are presented in Table A-14 in the Attachment. Annual average and maximum concentrations and the number of days exceeding standards for previous years are shown in Tables A-15 to A-18.

Carbon Monoxide (CO)

Carbon monoxide was measured at one of the two Riverside County SSAB air monitoring stations in 1995. Neither the federal or state standards were exceeded. The maximum 8-hour average CO recorded in 1995 (1.5 ppm) was 15.8% of the federal and 16.5% of the state standards.

Historical carbon monoxide air quality and trends in the Riverside County SSAB area have been discussed in a previous report.[17] Briefly, the area has not exceeded the federal standard during the last two decades. Summary statistics for carbon monoxide in the Riverside County SSAB as well as other District areas are given in Tables A-9 to A-13 in the Attachment.

Nitrogen Dioxide (NO_2)

Nitrogen dioxide was measured at one station in the Riverside County SSAB in 1995. The annual average nitrogen dioxide concentration was 42% of the federal standard and the maximum 1-hour average (0.09 ppm) was 35% of the state 1-hour standard.

Historical measurements and trends in the area were presented previously.[17] Tables 1 (Chapter 2) and A-19 to A-22 (Attachment) contain summary statistics for 1995 and for earlier years.

Sulfur Dioxide (SO_2)

Sulfur dioxide concentrations were not measured in the Riverside County SSAB in 1995. Measurements made in past years have shown concentrations to be well below the standard.[17]

Tables A-24 and A-25 in the Attachment contain annual average and maximum 1-hour averages for past years at Riverside County SSAB and other District monitoring stations.

Sulfates ($SO_4^=$)

No measurements of sulfate concentrations were made in 1995 at the two monitoring stations in the Riverside County SSAB. Historical monitoring has shown concentrations to be less than the state standard.[17]

Maximum 24-hour average and annual average sulfate concentrations for past years are presented in the Attachment (Tables A-28 and A-29).

Lead (Pb)

Lead concentrations were not made at the three Riverside County SSAB stations in 1995. Measurements made in past years have shown concentrations to be less than the standards.[17]

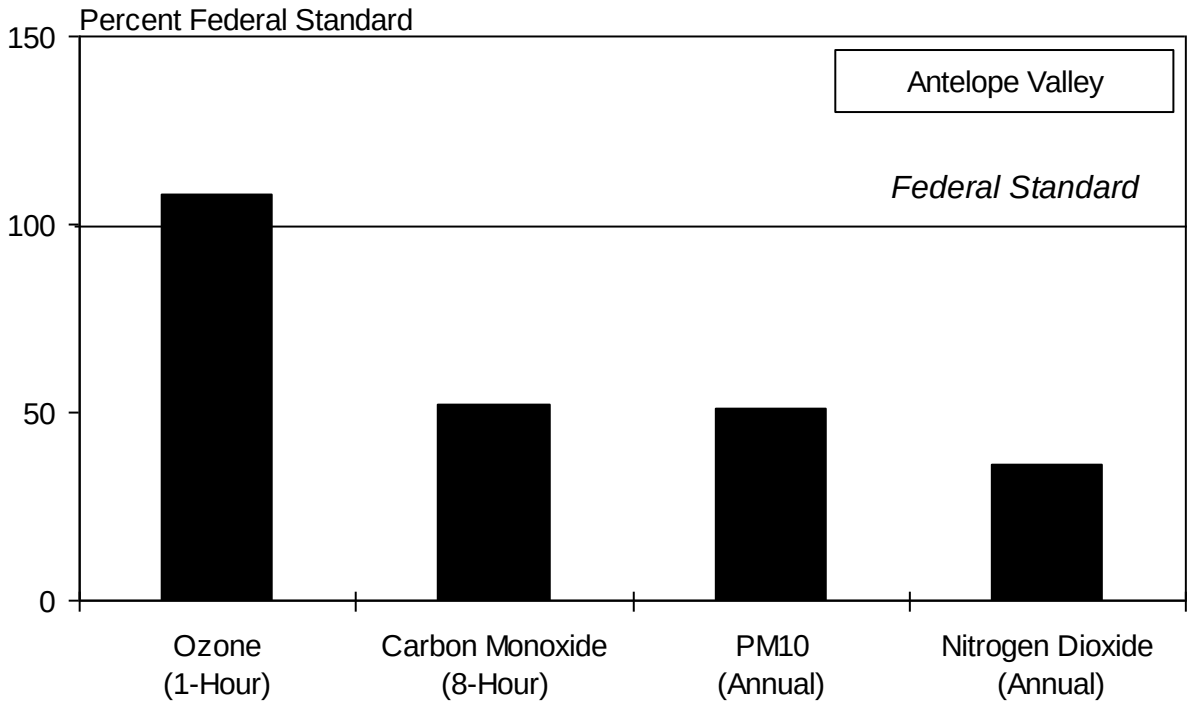
Maximum quarterly average and monthly average concentrations for past years are given in Tables A-31 and A-32 in the Attachment.

CHAPTER 4

AIR QUALITY IN THE LOS ANGELES COUNTY MDAB

AIR QUALITY IN THE LOS ANGELES COUNTY MDAB

In 1995, the District measured pollutant concentrations in the Los Angeles County MDAB at one air monitoring station, located in the Antelope Valley. The maximum pollutant concentrations recorded at this station are shown as percentages of the federal standard in Figure 4-1.



* LEAD - the maximum quarterly average was 7% of the federal standard in 1986, the last full year monitored.
SULFATE - the maximum 24-hour average was 68% of the state standard in 1989, the last full year monitored.

FIGURE 4-1

1995 Maximum Pollutant Concentrations As Percent of Standards*
Los Angeles County MDAB

Pollutant concentrations in the Antelope Valley exceeded the federal standard for ozone in 1995. Federal standards for carbon monoxide, nitrogen dioxide and PM_{10} were not exceeded. The maximum 1-hour average ozone concentration recorded at the Antelope Valley station was 108% of the standard. The maximum 8-hour average concentration of carbon monoxide was 52%, the annual average PM_{10} concentration was 51%, and the annual average nitrogen dioxide concentration was 36% of the federal standards.

Lead and sulfate were not measured in the Antelope Valley in 1995. However, historical measurements have shown that concentrations of these pollutants are below the federal and state standards in this area.[18]

Ozone (O_3)

Figure 3-3 in the previous chapter compares the number of days exceeding the federal ozone standard in different areas of the District. In 1995, the federal ozone standard was exceeded on 5 days in Antelope Valley. This compares to a high for the District of 73 days, recorded in the East San Gabriel Valley.

The more stringent state standard was exceeded on 61 days in the Antelope Valley. There were no exceedances of either health advisory or episode levels. The maximum 1-hour average concentration (0.14 ppm) was 108% of the federal and 140% of the state standard.

The number of exceedances of standards and maximum and second highest concentrations in 1995 for the Antelope Valley, compared to other District areas, are given in Table A-4. The number of exceedances of the federal standard and episode levels and the maximum and seasonal average concentrations for previous years are presented in Tables A-5 to A-8.

The seasonal variation in exceedances of the ozone standard and diurnal variations in ozone concentrations in the Antelope Valley have been discussed previously.[18] Briefly, exceedances of the federal ozone standard tend to peak in the summer season, with no exceedances in the winter months. During the summer, ozone concentrations are very low during the early morning hours, rising after sunrise to an afternoon peak, and dropping to low levels at night. The pattern is similar to that in the high-ozone area of the Basin (Chapter 2, Figure 2-7) except that the peak occurs a couple of hours later, with the concentration averaging highest at 3 p.m.

Carbon Monoxide (CO)

In 1995, neither state nor federal carbon monoxide standards were exceeded in the Antelope Valley. The maximum 8-hour average CO (4.9 ppm) recorded in 1995 was 51% of the federal and 54% of the state 8-hour standards. The maximum 1-hour average CO (7 ppm) was 19% and 33% of the federal and state 1-hour standards, respectively.

Carbon monoxide statistics for 1995 and for previous years for all District monitoring stations are contained in Tables A-9 to A-13 in the Attachment.

Suspended Particulate Matter (PM_{10})

Figure 3-3 in the previous chapter shows the percent of days exceeding the federal 24-hour PM_{10} standard in 1995 in all areas of the District. PM_{10} concentrations in the Antelope Valley did not exceed either the 24-hour or annual federal standards in 1995. The maximum 24-hour average PM_{10} concentration (61 $\mu g/m^3$) was 40% of the federal 24-hour standard, and the annual average PM_{10} concentration was 51% of the federal annual standard. The federal standards were last exceeded in the Antelope Valley in 1991.

The state annual standard was not exceeded, with the Antelope Valley recording a 1995 annual geometric mean PM_{10} concentration (22.6 $\mu g/m^3$) which was 75% of the standard. However, the maximum 24-hour average was 122% of the state 24-hour standard.

The 1995 highest and second highest concentrations of PM_{10}, the percent of days exceeding state and federal PM_{10} standards, and the annual average (arithmetic and geometric mean) PM_{10} concentrations for Antelope Valley and all other locations monitored in 1995 are given in Table A-14. The percent of days exceeding standards, maximum 24-hour averages, and annual average PM_{10} concentrations for previous years are contained in Tables A-15 to A-18.

Information on seasonal and diurnal variation in PM_{10} in the Antelope Valley was published previously[18]. Exceedances of the state 24-hour PM_{10} standard were found to occur during all twelve months of the year. Exceedances of the federal 24-hour standard were infrequent and did not show a clear seasonal pattern.

Nitrogen Dioxide (NO_2)

There were no exceedances of federal or state standards for nitrogen dioxide in the Antelope Valley or any other area of the District in 1995. The maximum annual average concentration (annual arithmetic mean NO_2 0.0194 ppm) in the Antelope Valley was 36% of the federal standard. The maximum 1-hour average NO_2 concentration of the year in the Antelope Valley (0.14 ppm) was 54% of the state standard.

Summary statistics for nitrogen dioxide for 1995 and for previous years are given in Tables A-19 to A-22 in the Attachment. Although nitrogen dioxide standards were not exceeded in any area of the District in 1995, nitrogen dioxide reacts to give nitrates, a component of PM_{10}, and for this reason is still a concern.

Sulfur Dioxide (SO_2)

Sulfur dioxide concentrations were not monitored in the Antelope Valley in 1995. Historical measurements in the area were well below the standards, and monitoring was discontinued after 1977.

Summary statistics for sulfur dioxide for 1995 and earlier years are contained in Tables A-23 to A-25 in the Attachment. Though sulfur dioxide standards were not exceeded in any area of the District in 1995, SO_2 reacts to give sulfates, which are a component of PM_{10}. Standards for these pollutants were exceeded in some areas of the District in 1995, though not in the Los Angeles County MDAB's Antelope Valley.

Sulfates and Lead

Sulfate and lead concentrations were not monitored in the Antelope Valley in 1995. Historical data showed concentrations of these pollutants to be below the federal and state standards in the Antelope Valley, and monitoring was discontinued.

Statistics for past years for sulfate and lead are presented in Tables A-26 to A-29 and A-30 to A-32, respectively.