

#56496158

BUREAU OF LAND MANAGEMENT
CALIFORNIA STATE OFFICE
CENTRAL LIBRARY COPY

TD88055338

7320
QC
1882 NC
.R433
1980
v.2

FINAL REPORT
BASELINE METEOROLOGY AND AIR QUALITY
IN THE REDDING DISTRICT

APPENDICES

Submitted to:

Bureau of Land Management
Sacramento, California

Prepared by:

D. Rykaczewski

May 30, 1980

BLM Library
Bldg. 50
Denver Federal Center
P.O. Box 25047
Denver, Colorado 80225



SCIENCE APPLICATIONS, LA JOLLA, CALIFORNIA
ALBUQUERQUE • ANN ARBOR • ARLINGTON • ATLANTA • BOSTON • CHICAGO • HUNTSVILLE
LOS ANGELES • McLEAN • PALO ALTO • SANTA BARBARA • SUNNYVALE • TUCSON

P.O. Box 2351, 1200 Prospect Street, La Jolla, California 92037

APPENDIX A
ISOPLUVIAL OR RAINFALL INTENSITY ANALYSES
FOR CALIFORNIA

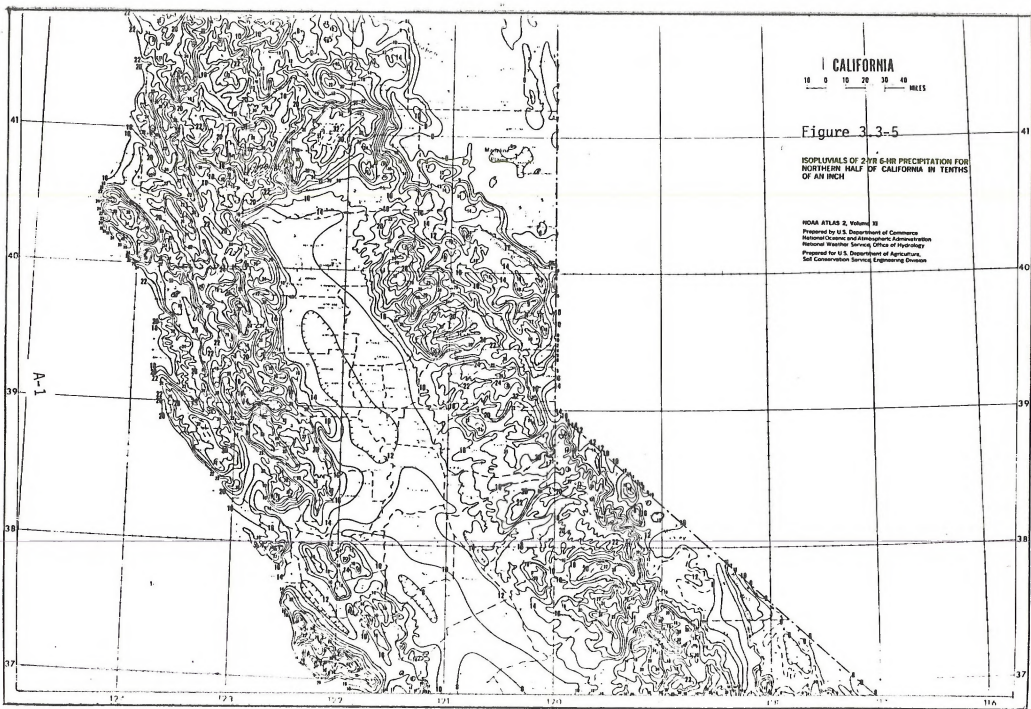
CALIFORNIA

10 0 10 20 30 40
MILES

Figure 3-3-5

ISOPLETHS OF 2-HR 6-HR PRECIPITATION FOR
NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division



A-1

123

122

121

120

119

37

38

39

40

41

CALIFORNIA

10 0 10 20 30 40
MILES

A-2

Figure 3.3-6

ISOPLETHS OF 2-YR 6-HR PRECIPITATION FOR
SOUTHERN HALF OF CALIFORNIA IN TENTHS OF
AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

122

121

120

119

118

117

116

115

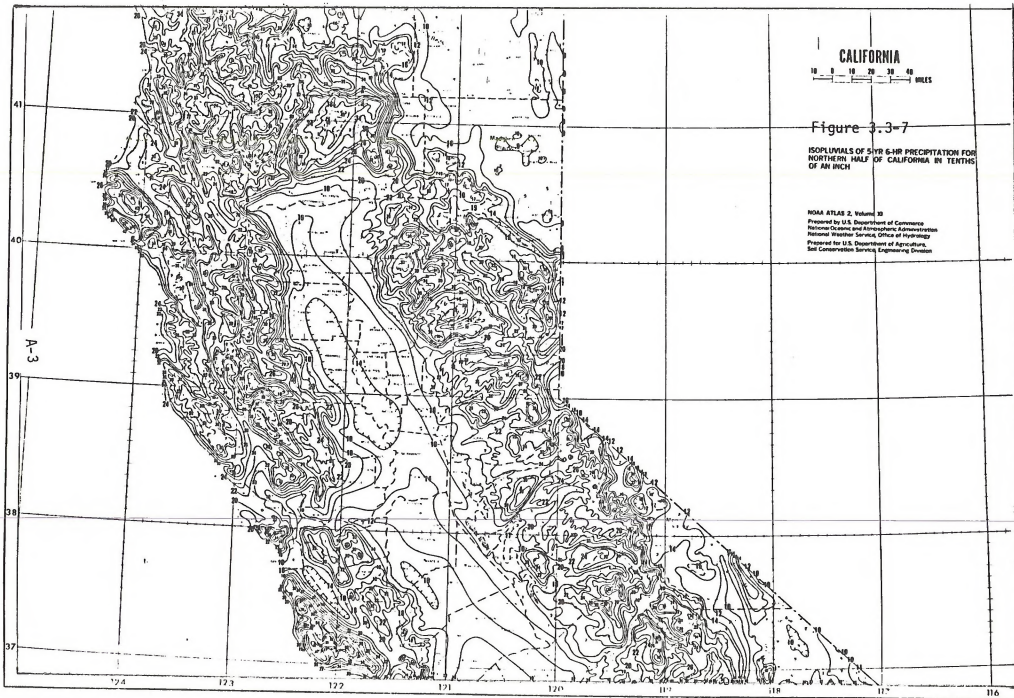
37

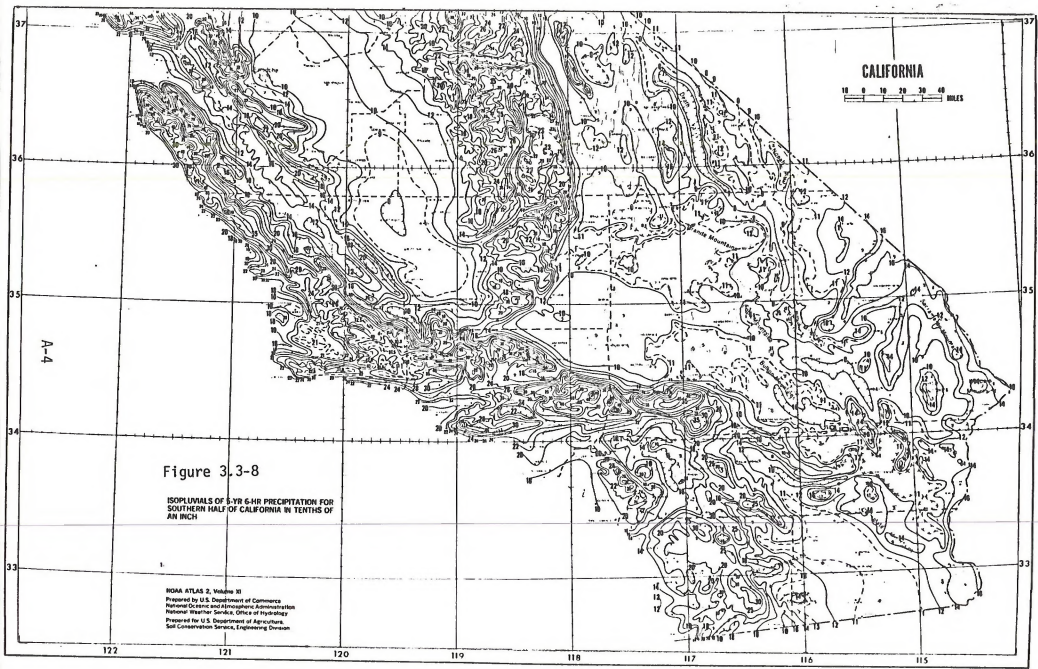
36

35

34

33





A-4

Figure 3.3-8

ISOPLUVIALS OF 5-YR 6-HR PRECIPITATION FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

CALIFORNIA

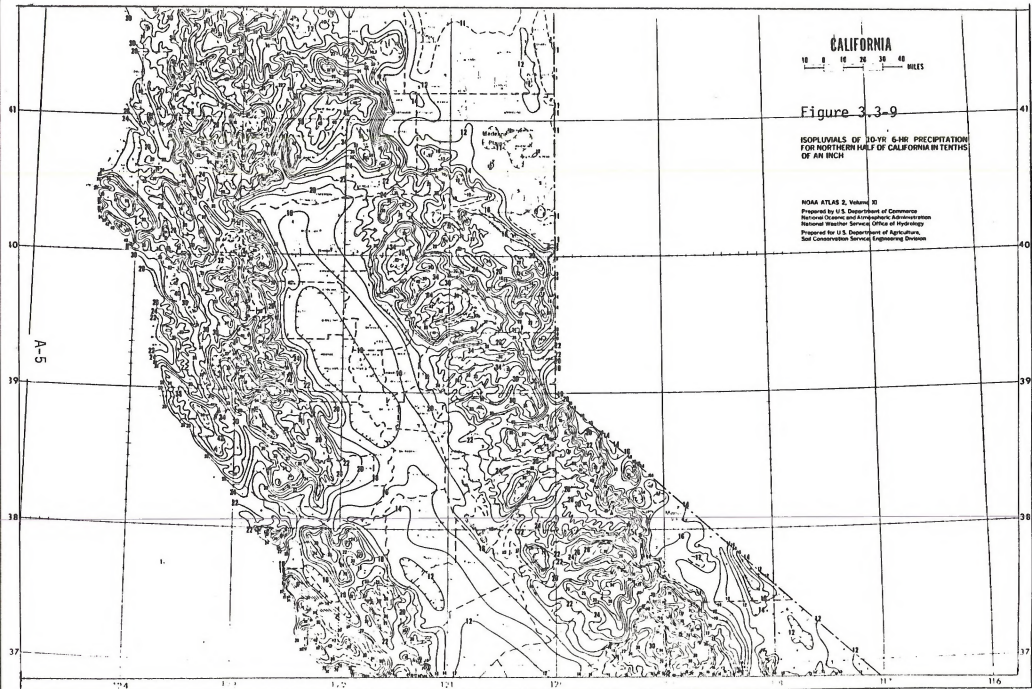
10 0 10 20 30 40 MILES

Figure 3-3-9

ISOPLUVIALS OF 30-YR 6-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume 31
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

A-5



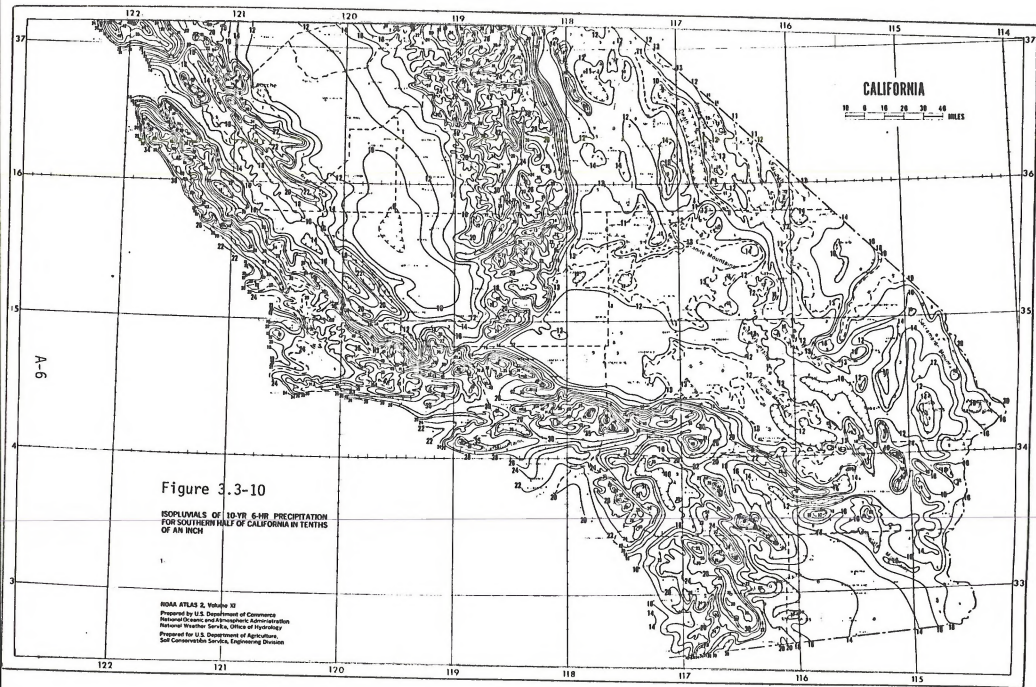


Figure 3-3-11

ISOPLUMALS OF 25-YR 6-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 3, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

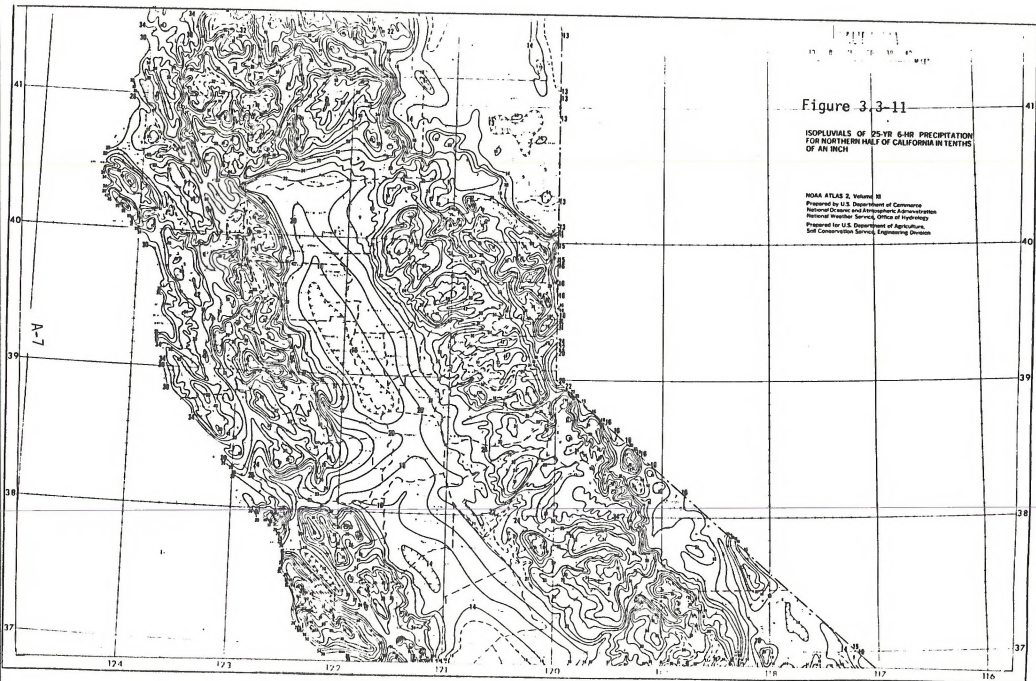




Figure 3.3-12

ISOPLUVIALS OF 25-YR 6-HR PRECIPITATION
FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

WDA ATLAS 2, Volume 33
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

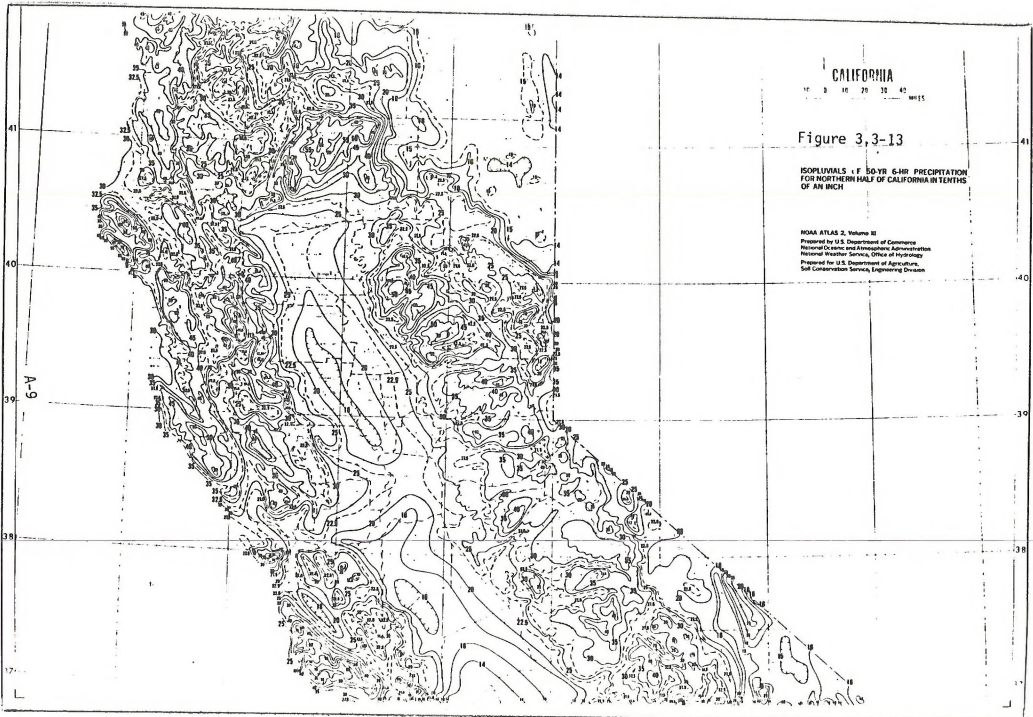
CALIFORNIA

10 20 30 40 50 MILES

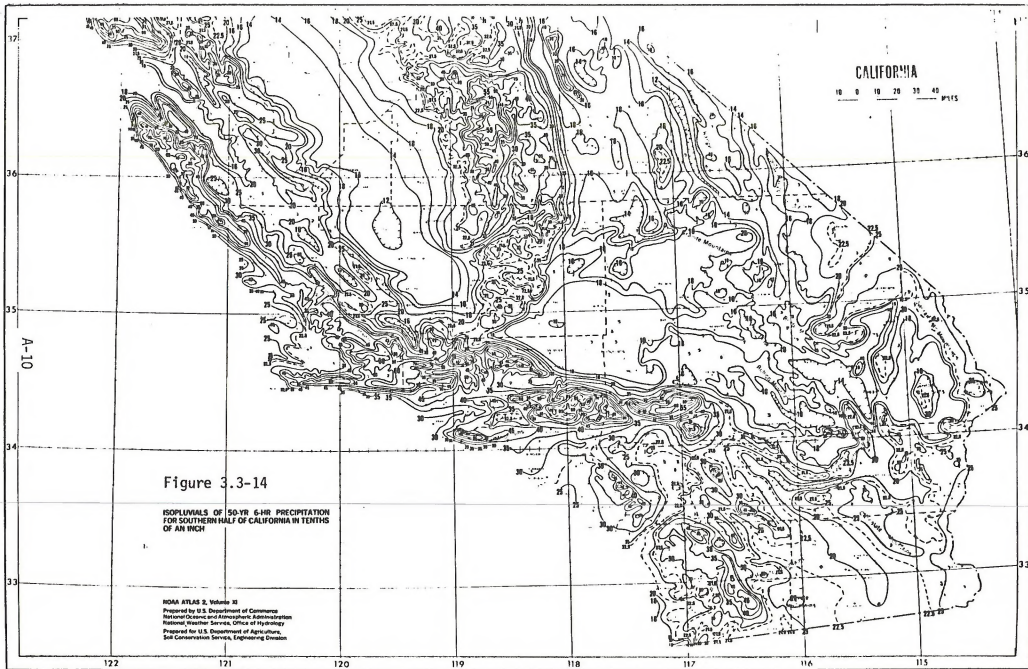
Figure 3,3-13

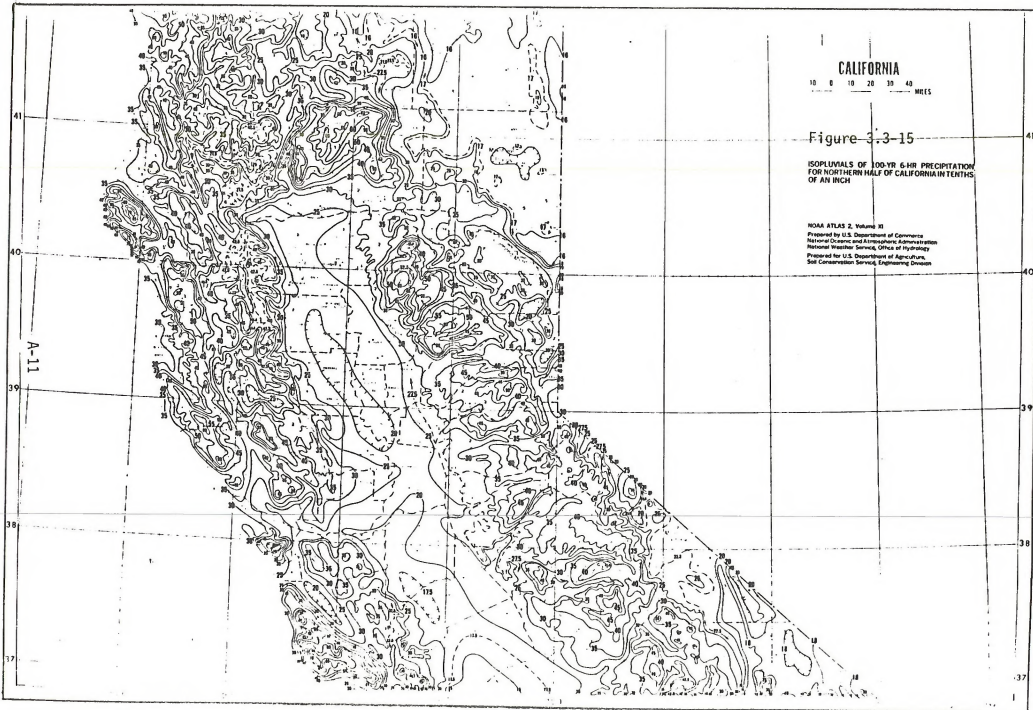
ISOPLETHS OF 6-MO. 6-HR. PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division



A-9





CALIFORNIA

10 0 10 20 30 40
MILES

Figure 3.3-15

ISOPLUVIALS OF 100 VR 6-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

A-11

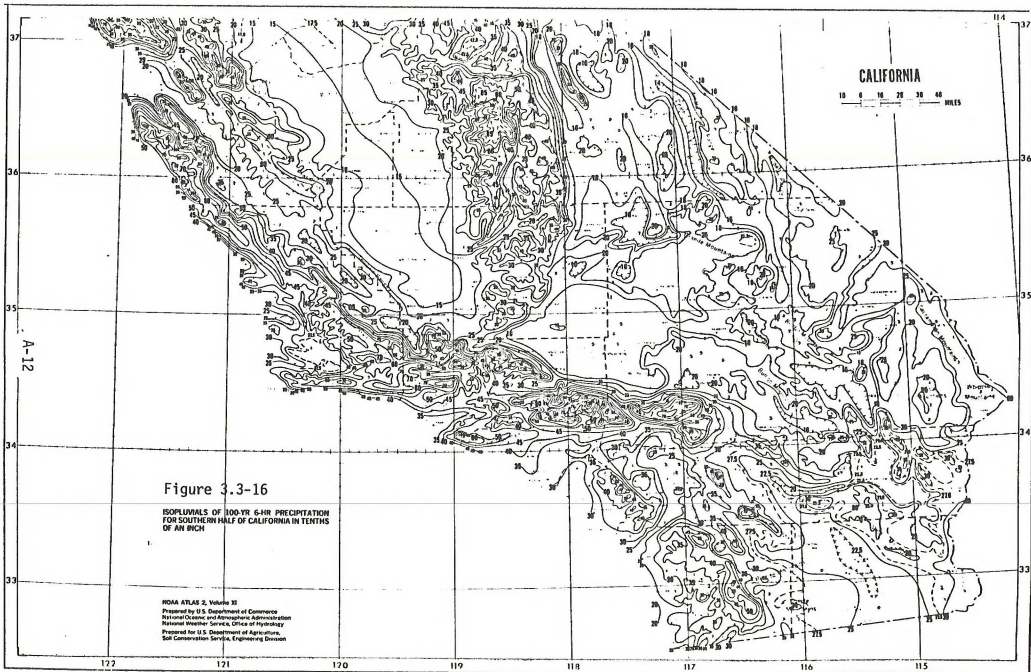


Figure 3.3-16
 ISOPLETHS OF 100-YR 6-HR PRECIPITATION
 FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS
 OF AN INCH

NOAA ATLAS 2, Volume 33
 Prepared by U.S. Department of Commerce
 National Oceanic and Atmospheric Administration
 National Weather Service, Office of Hydrology
 Prepared for U.S. Department of Agriculture
 Soil Conservation Service, Engineering Division

CALIFORNIA

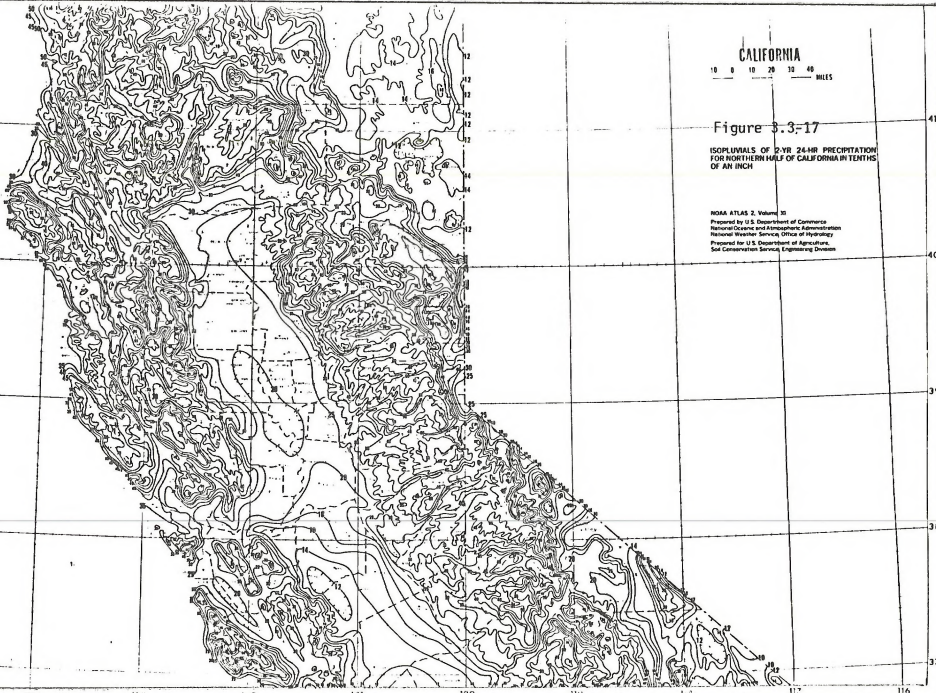
10 0 10 20 30 40
MILES

Figure 3.3-17

ISOPLETHALS OF 2-YR 24-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume 35
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

A-13



A-14

Figure 3.3-18

ISOPLUVIALS OF 2-YR 24-HR PRECIPITATION
FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

CALIFORNIA
0 10 20 30 40
MILES

CALIFORNIA

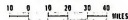
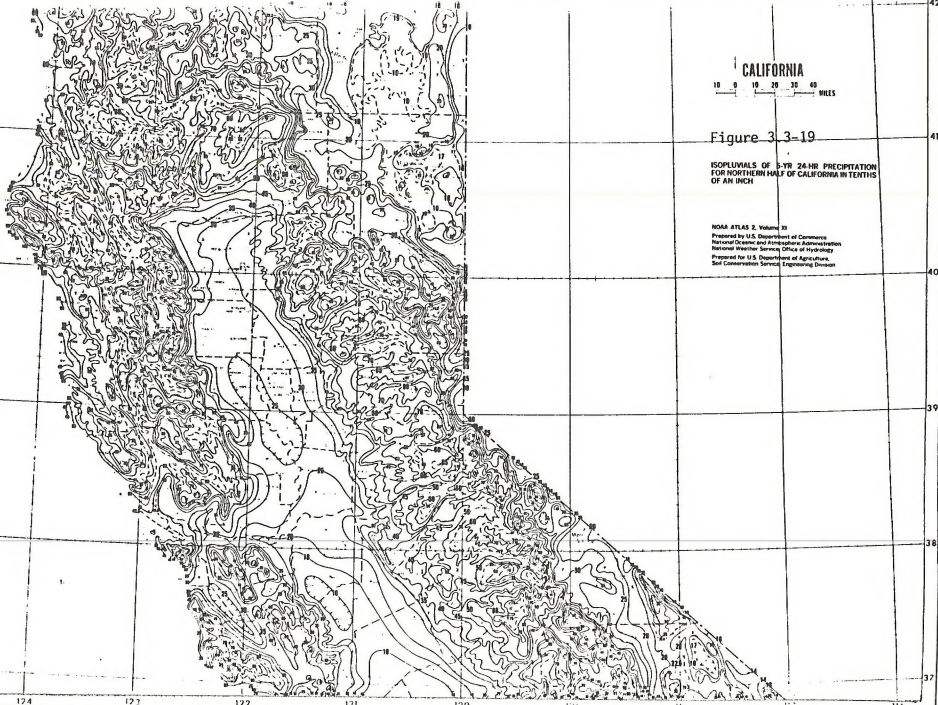


Figure 3-3-19

ISOPLETHS OF 3-YR 24-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NASA ATLAS 2, Volume 20
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division



A-15

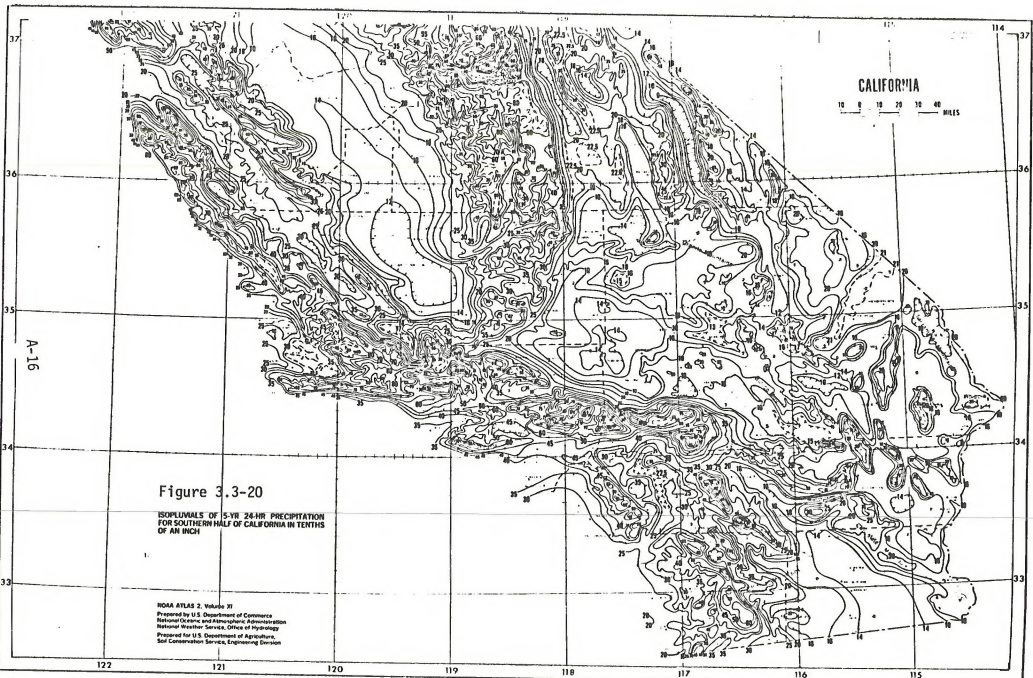


Figure 3.3-20

ISOHYALS OF 5-YR 24HR PRECIPITATION
FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume 31
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

CALIFORNIA

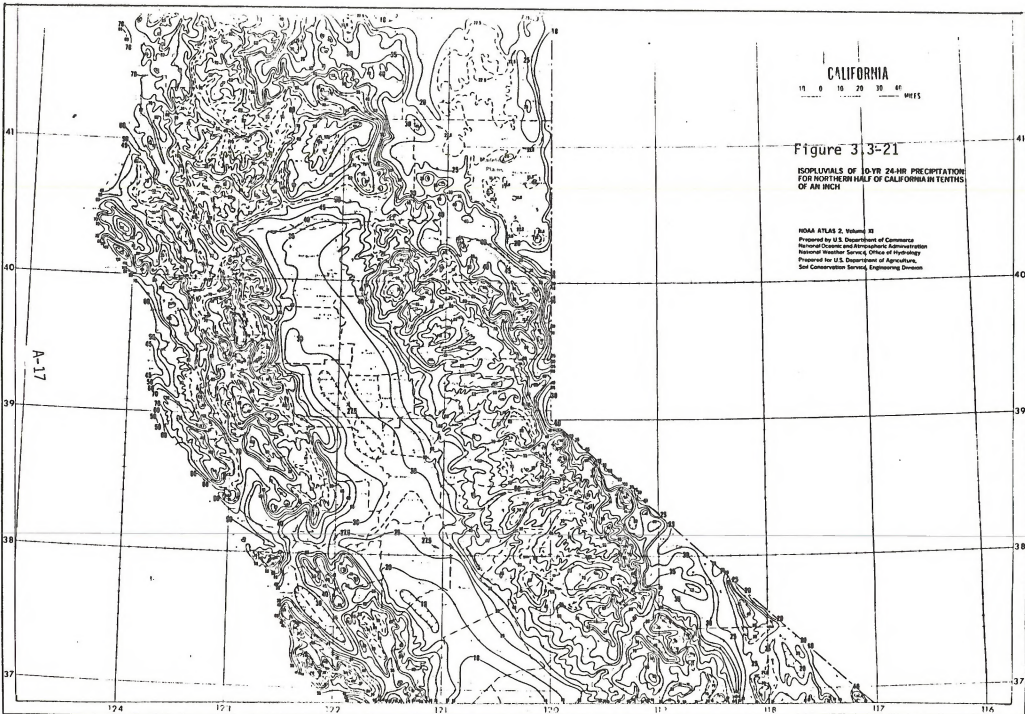
10 0 10 20 30 40
MILES

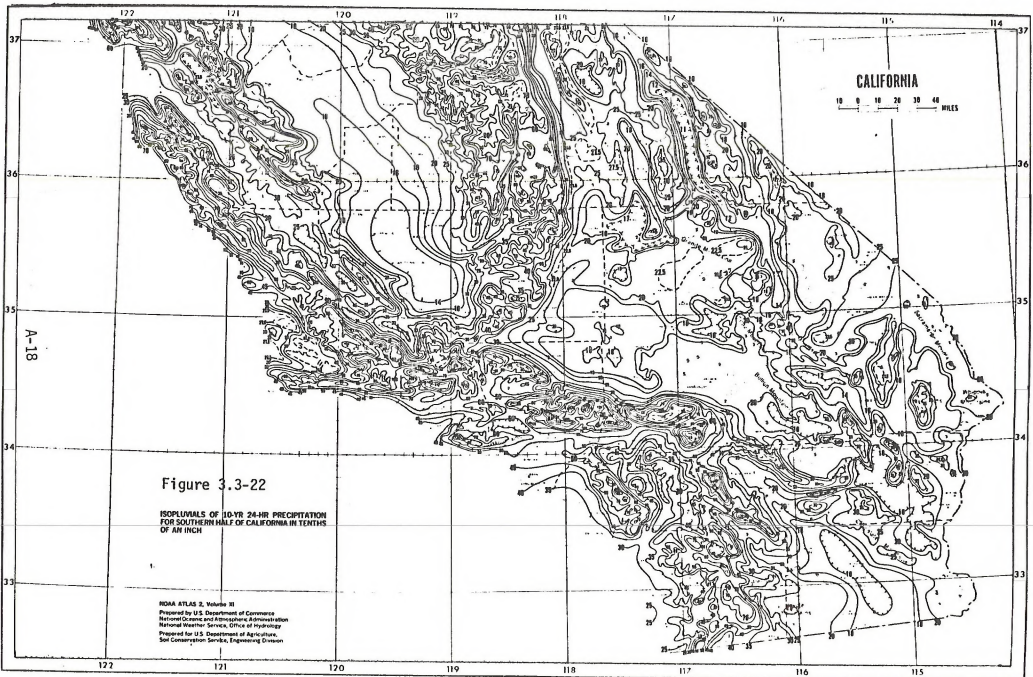
Figure 3.3-21

ISOPHYALS OF 10-YR 24-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume XI
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

A-17



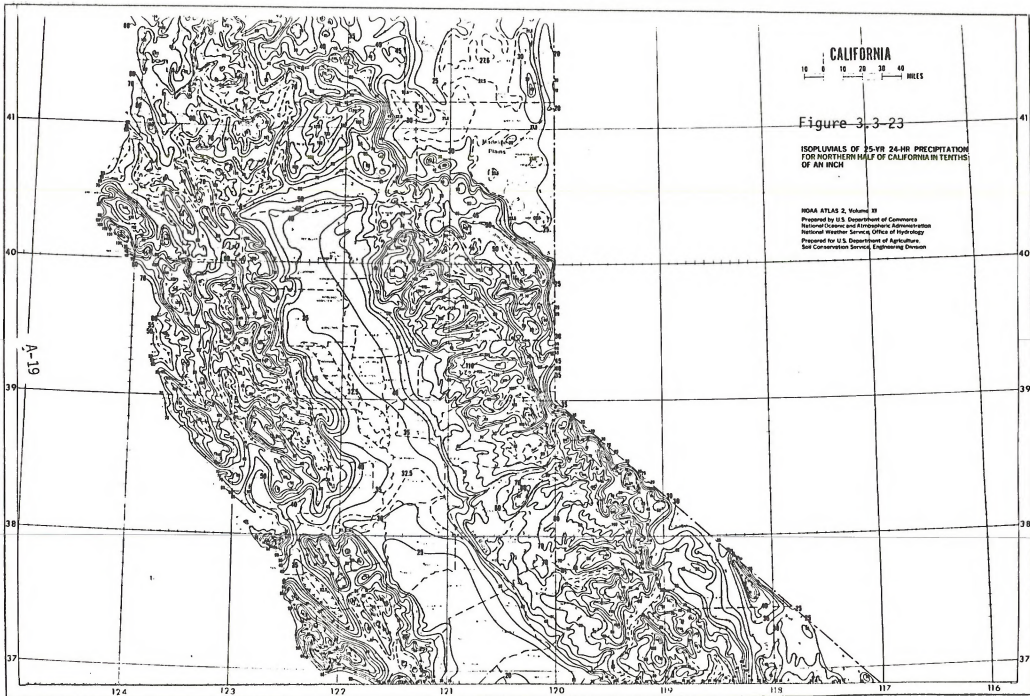


A-18

Figure 3.3-22

ISOPLUVALS OF 10-YR 24-HR PRECIPITATION
FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division



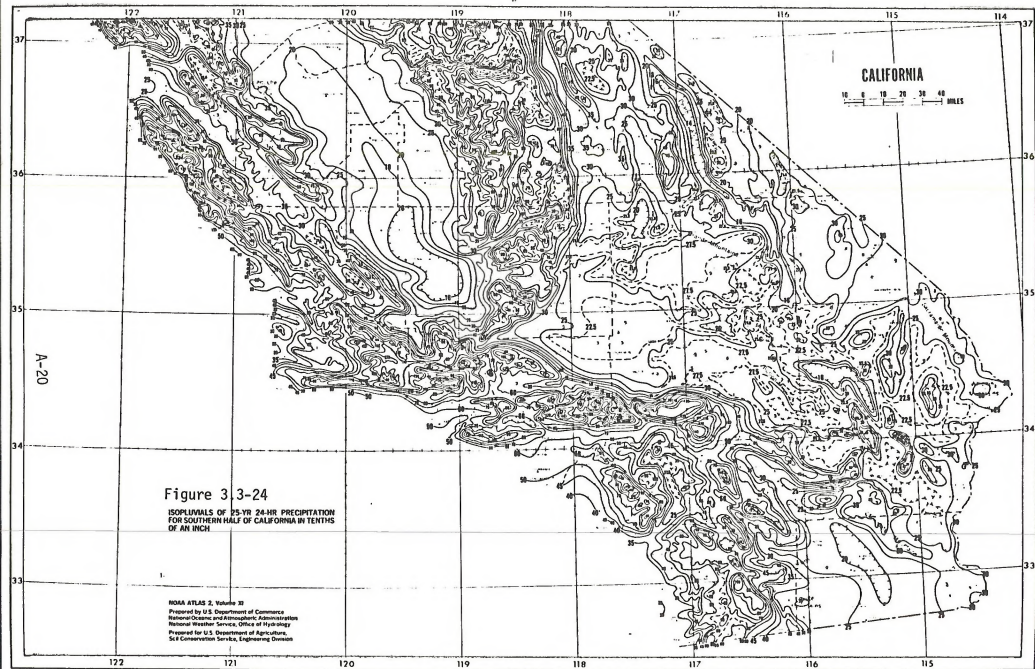
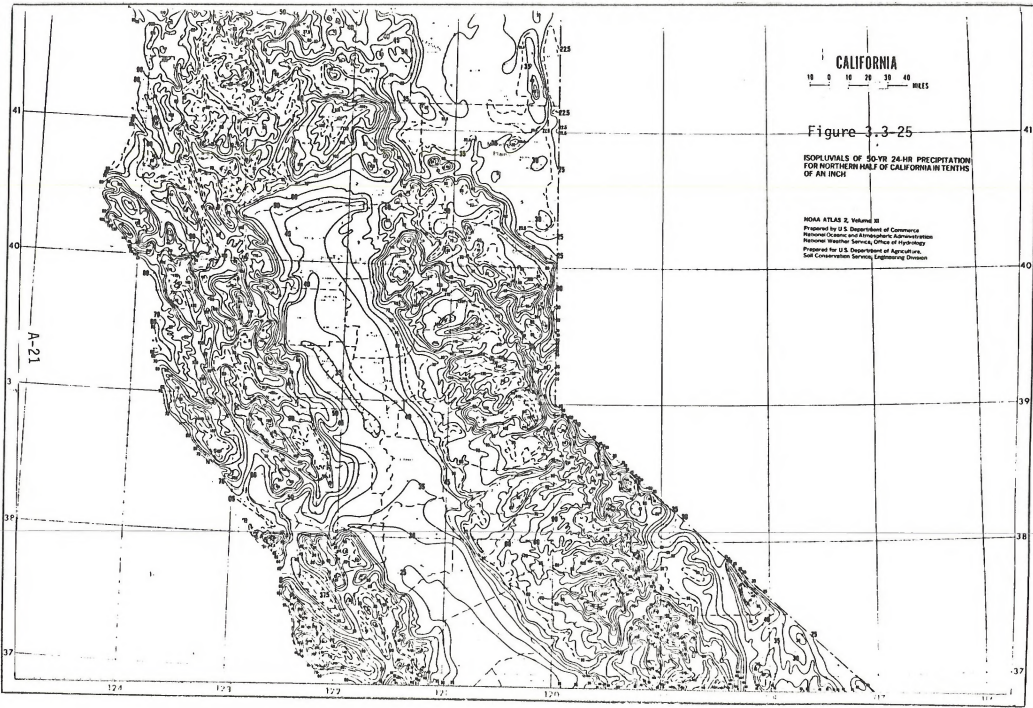


Figure 3.3-24

ISOPLUVIALS OF 25-YR 24-HR PRECIPITATION
FOR SOUTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume 32
 Prepared by U.S. Department of Commerce
 National Oceanic and Atmospheric Administration
 National Weather Service, Office of Hydrology
 Prepared for U.S. Department of Agriculture,
 Soil Conservation Service, Engineering Division



CALIFORNIA

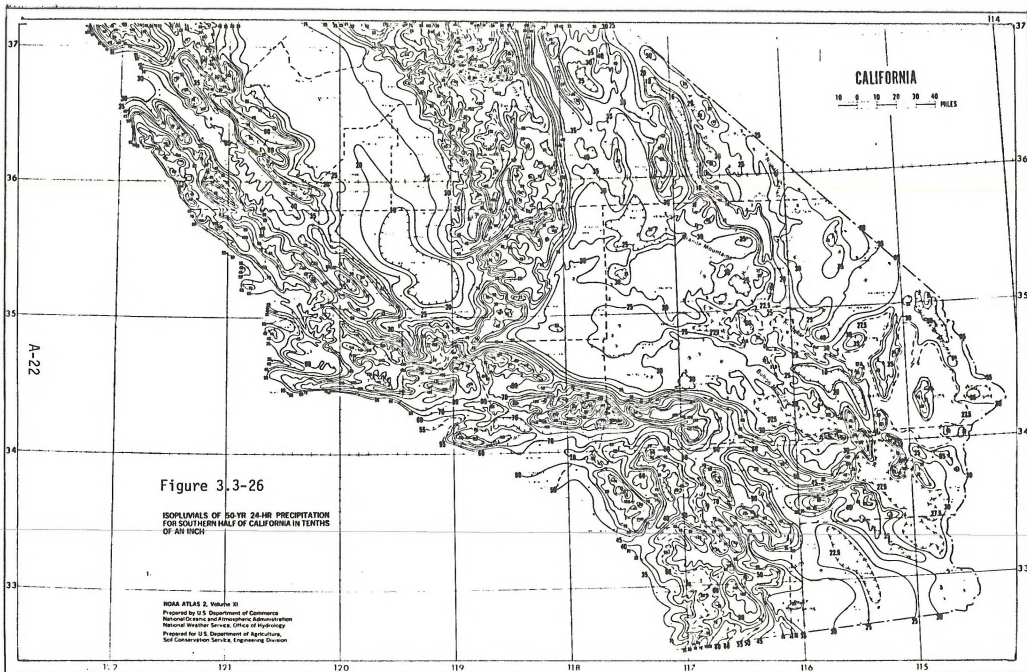
10 0 10 20 30 40
MILES

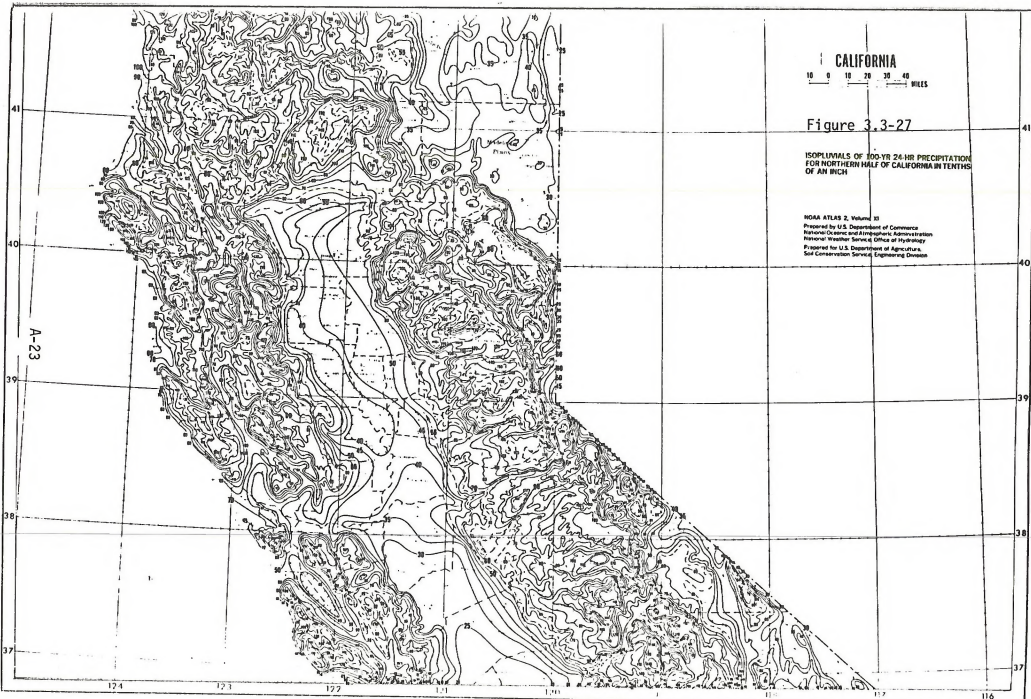
Figure 3-3-25

ISOPLUVIALS OF 50-YR 24-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

A-21





A-23

CALIFORNIA
10 0 10 20 30 40
MILES

Figure 3.3-27

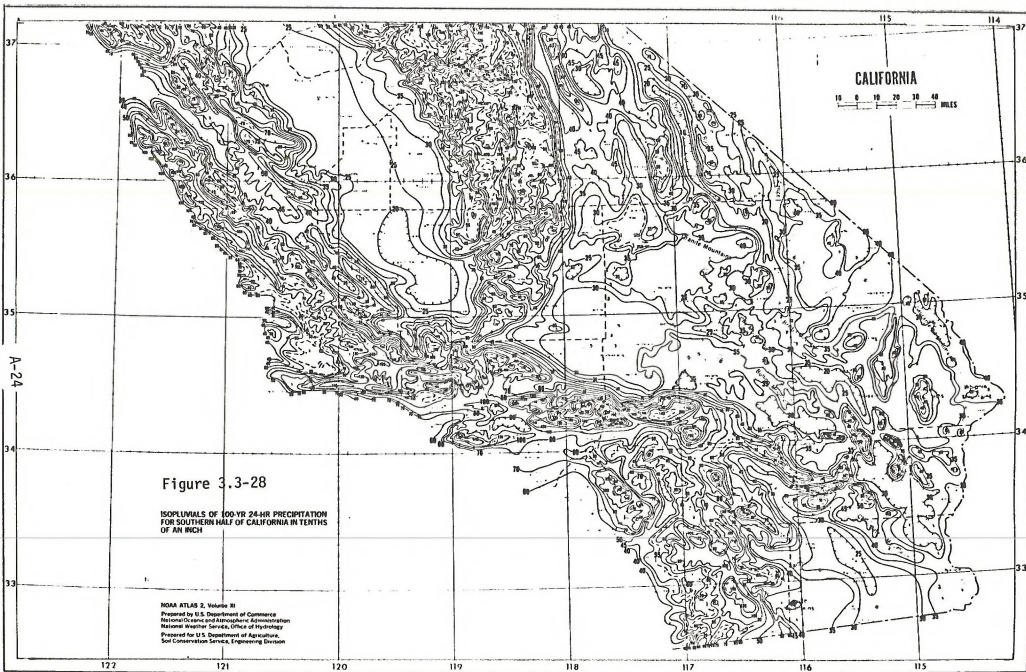
ISOPLUVIALS OF 100-YR 24-HR PRECIPITATION
FOR NORTHERN HALF OF CALIFORNIA IN TENTHS
OF AN INCH

NOAA ATLAS 2, Volume 01
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division

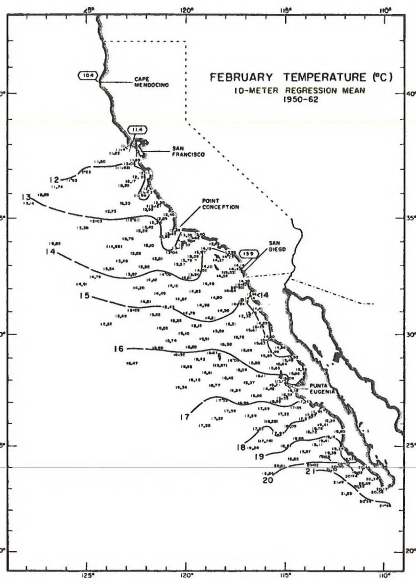
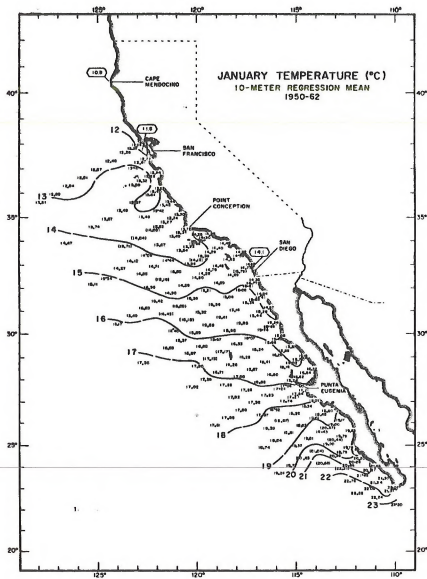
124 123 122 121 120 119 118 117 116

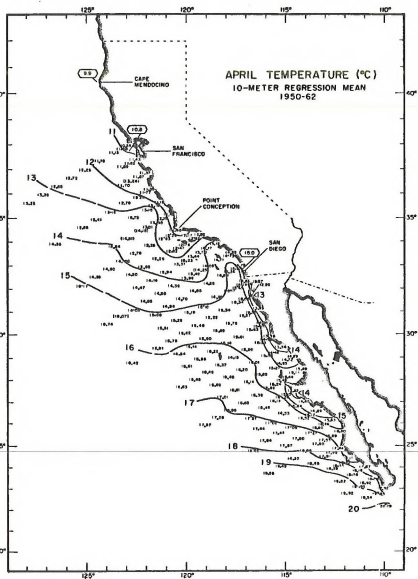
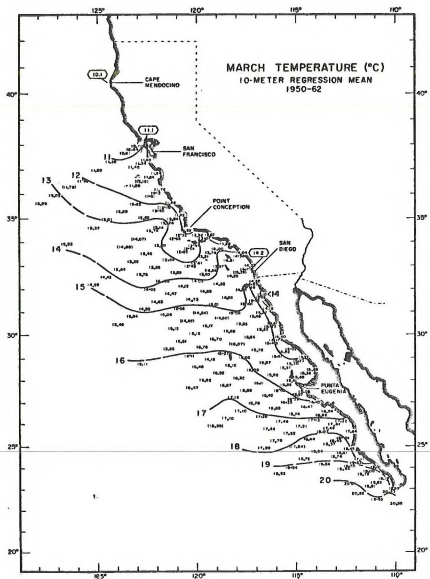
41
40
39
38
37

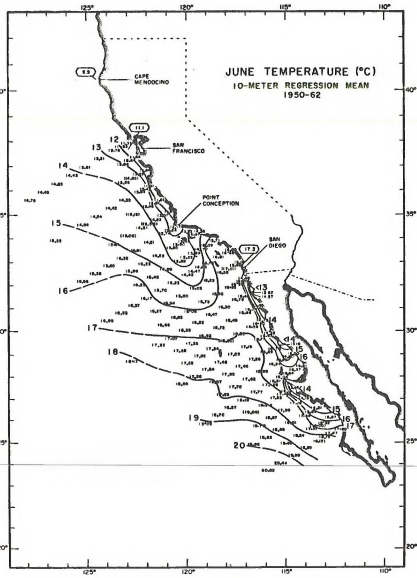
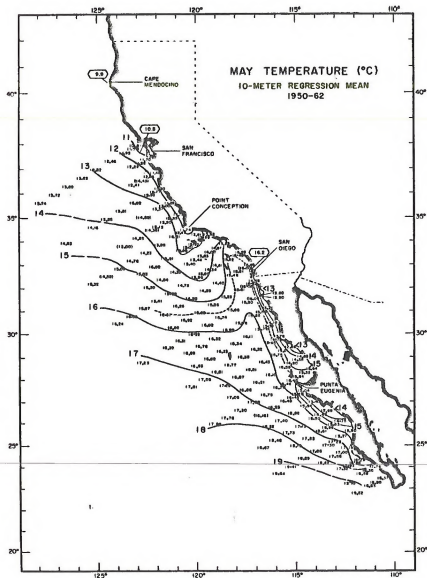
41
40
39
38
37

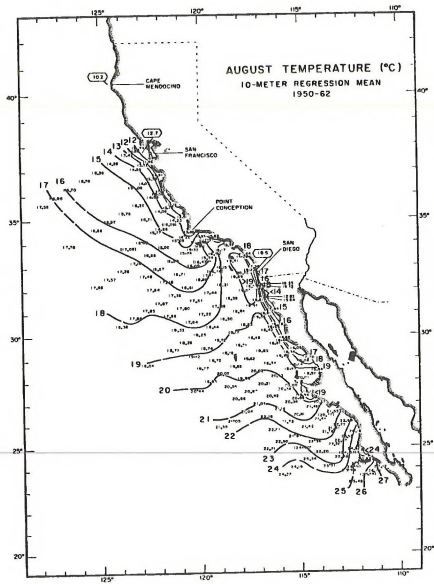
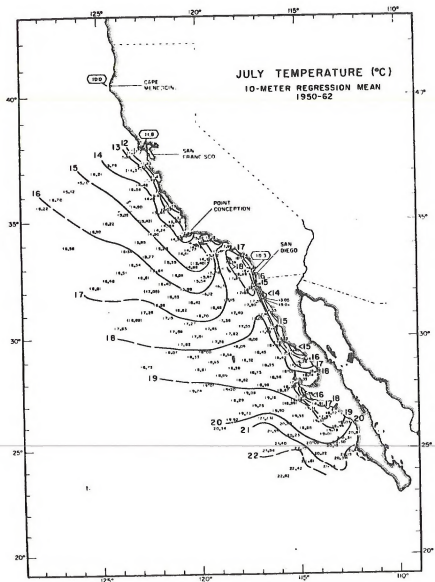


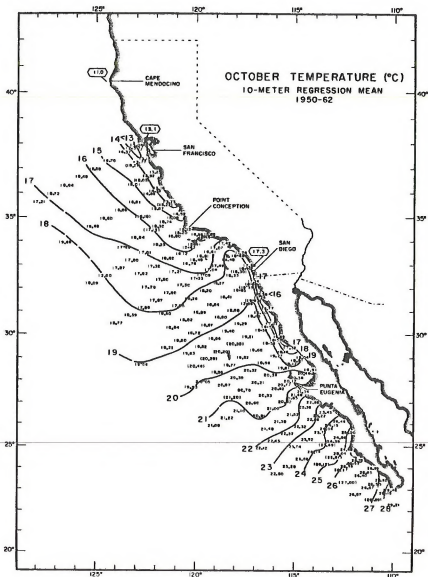
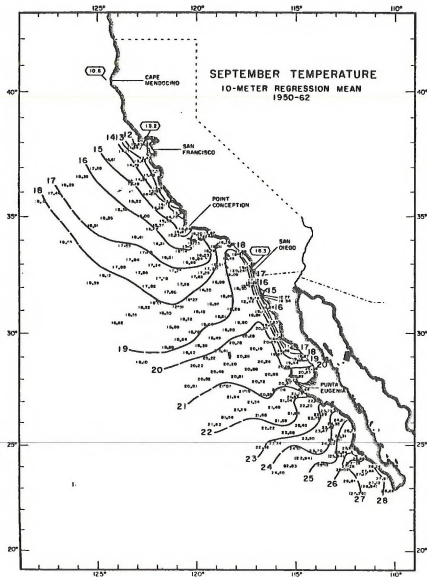
APPENDIX B
MONTHLY SEA SURFACE TEMPERATURES OFF
COASTAL CALIFORNIA

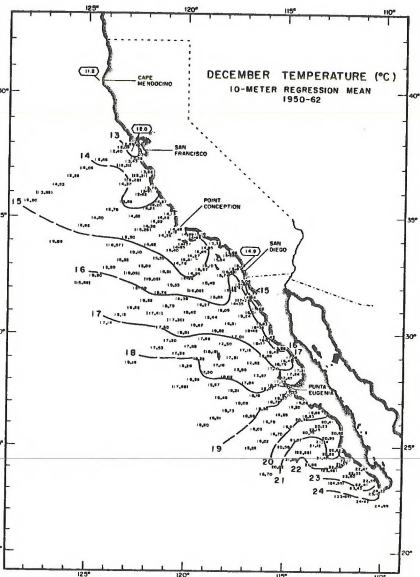
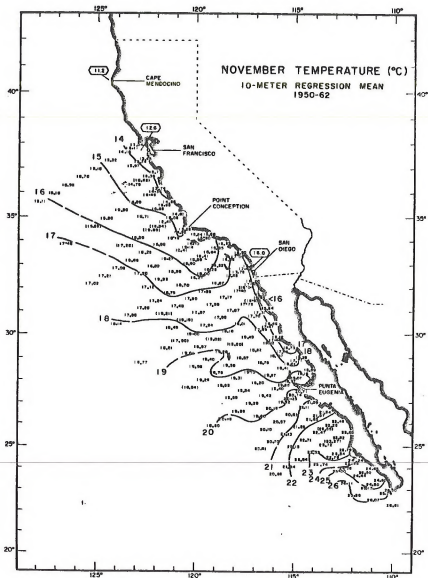




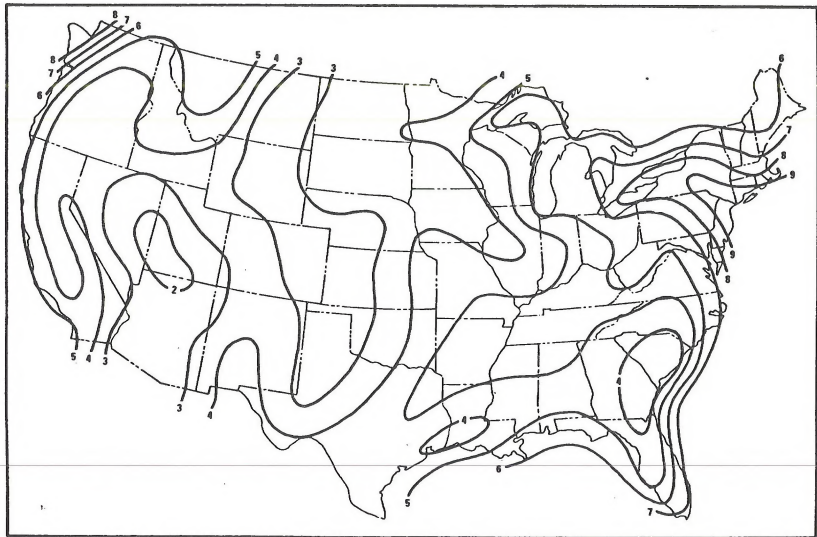




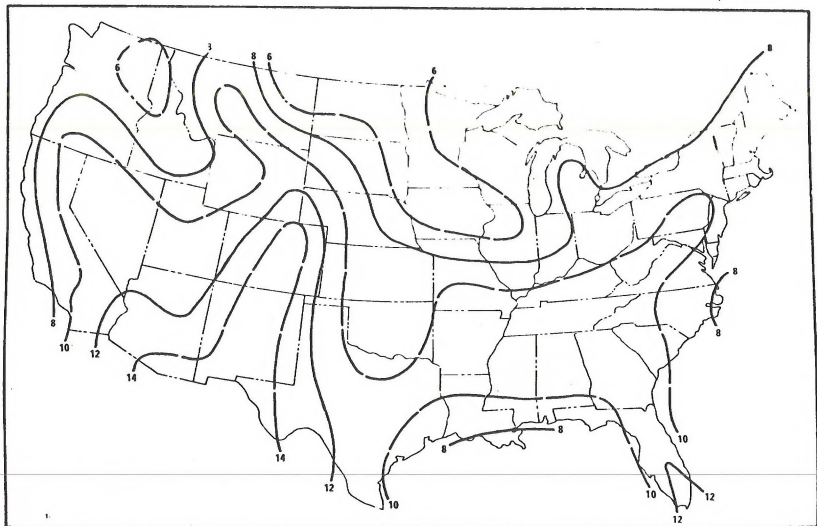




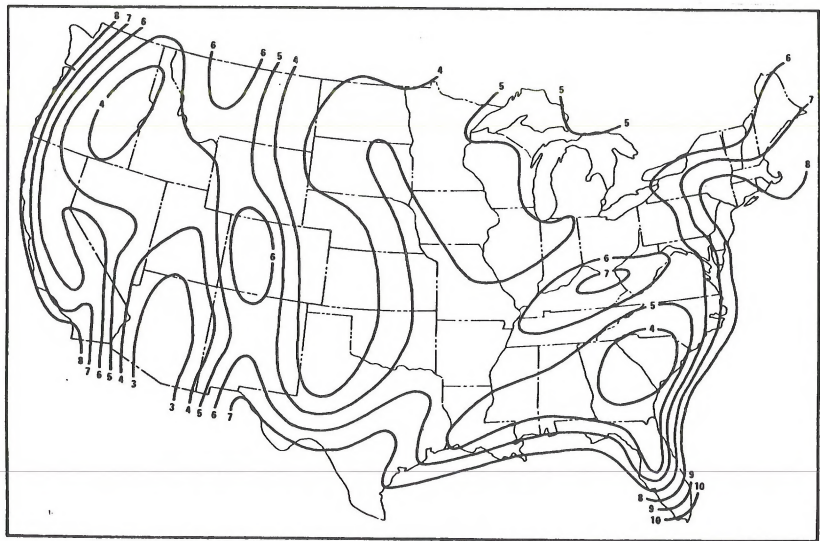
APPENDIX C
SEASONAL AND ANNUAL MIXING HEIGHTS DURING
THE MORNING AND AFTERNOON HOURS IN THE
CONTIGUOUS UNITED STATES



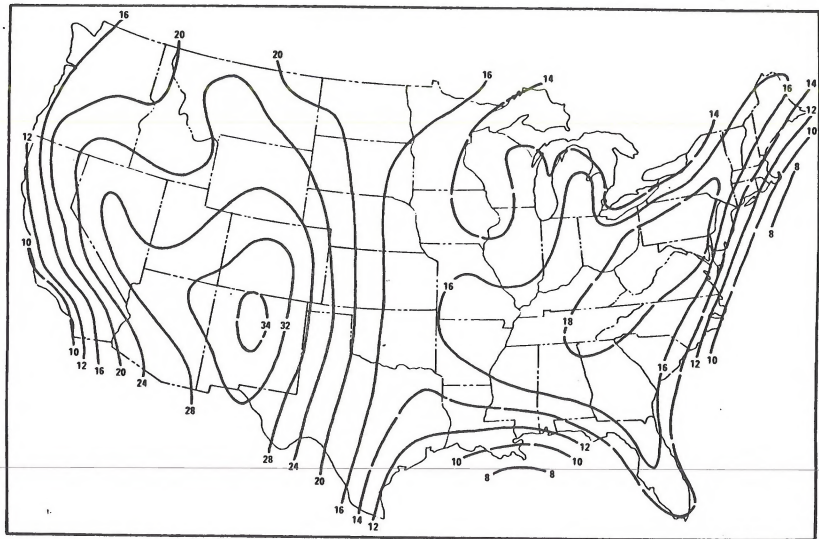
Isopleths ($m \times 10^2$) of Mean Winter Morning Mixing Heights



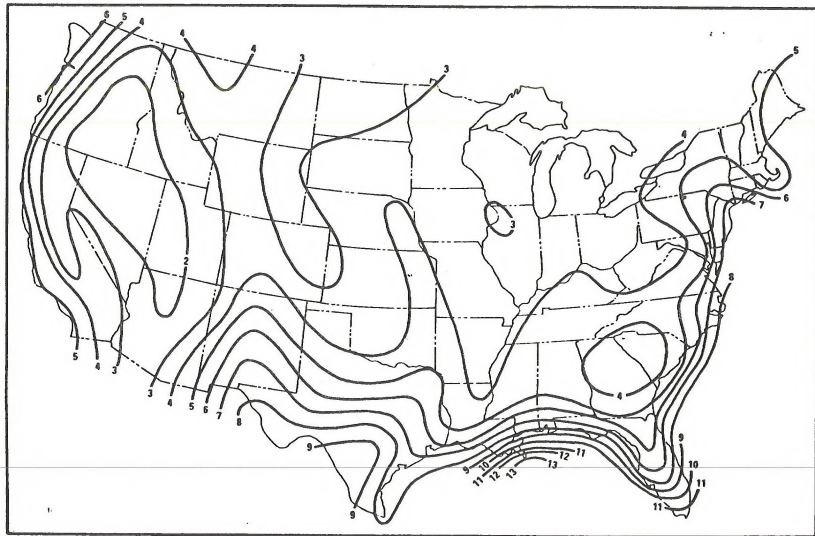
Isopleths ($m \times 10^2$) of Mean Winter Afternoon Mixing Heights



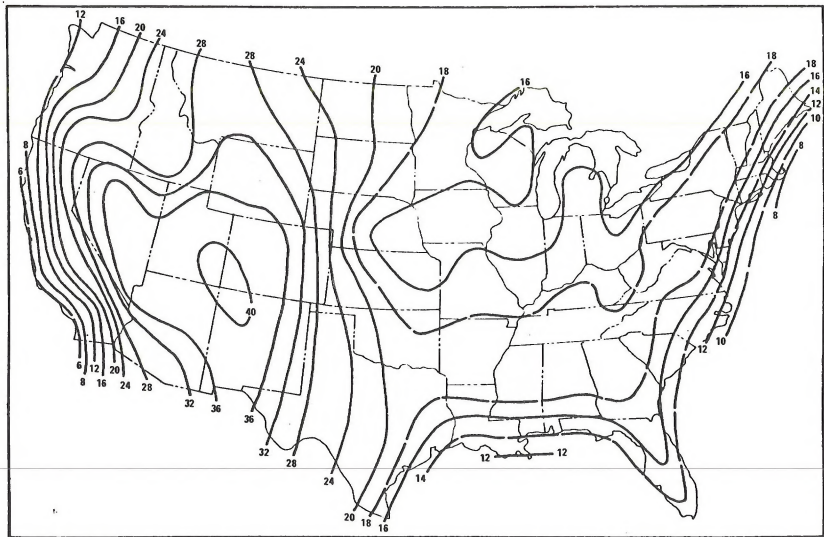
Isopleths ($m \times 10^2$) of Mean Spring Morning Mixing Heights



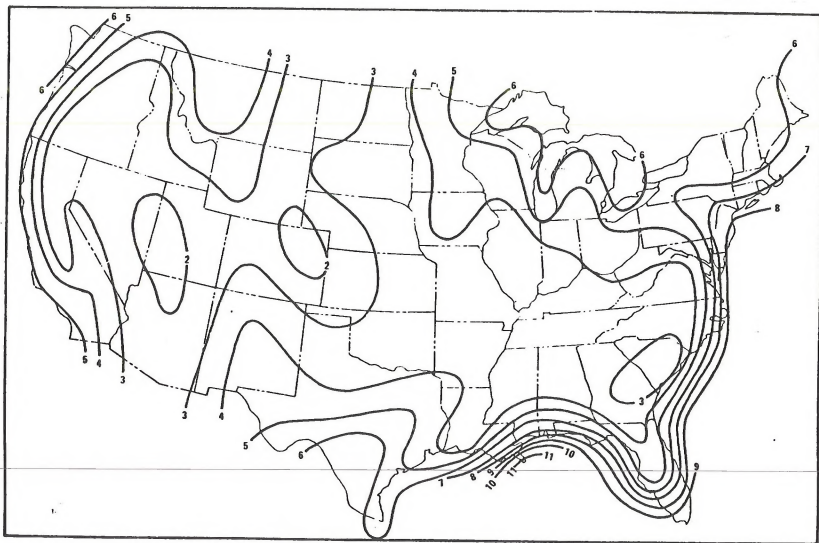
Isopleths ($m \times 10^2$) of Mean Spring Afternoon Mixing Heights



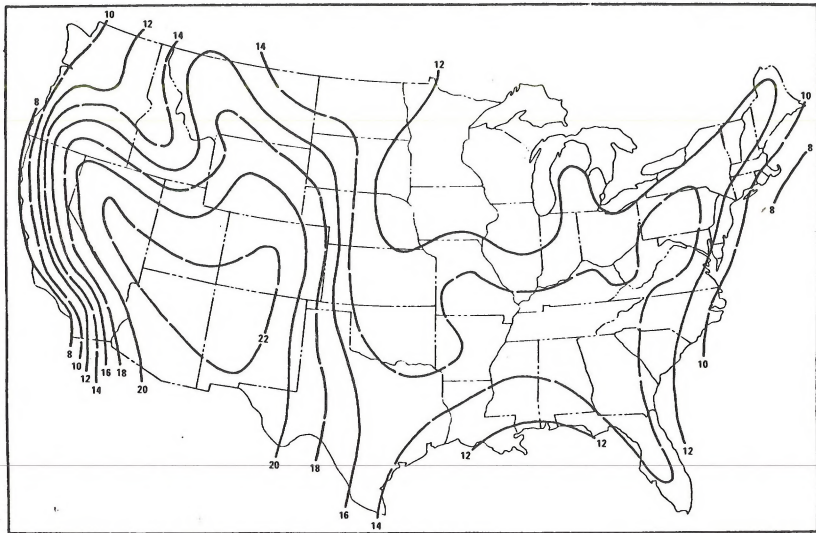
Isopleths ($m \times 10^2$) of Mean Summer Morning Mixing Heights



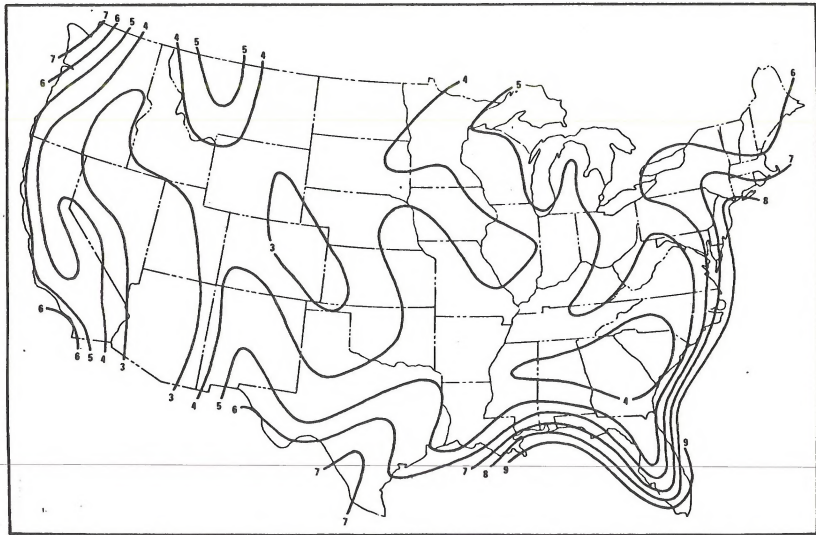
Isopleths ($m \times 10^2$) of Mean Summer Afternoon Mixing Heights



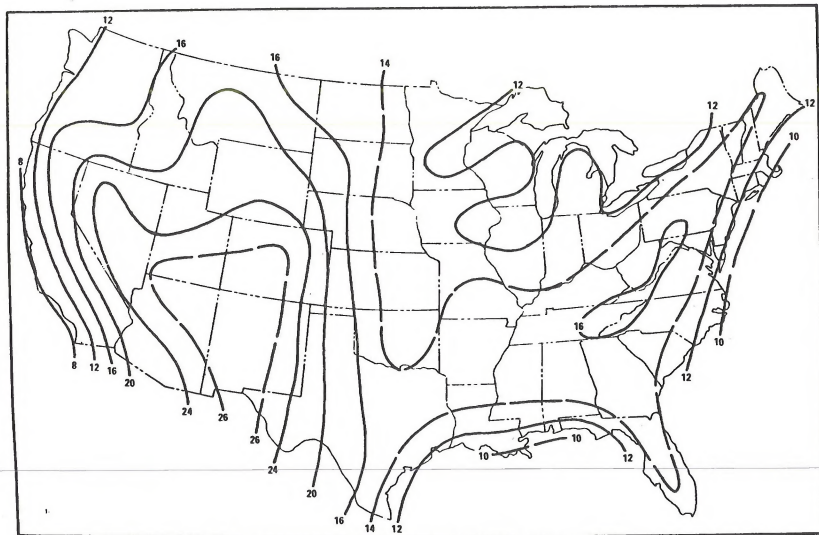
Isopleths ($m \times 10^2$) of Mean Autumn Morning Mixing Heights



Isopleths ($m \times 10^2$) of Mean Autumn Afternoon Mixing Heights



Isopleths ($m \times 10^2$) of Mean Annual Morning Mixing Heights



Isopleths ($m \times 10^2$) of Mean Annual Afternoon Mixing Heights

APPENDIX D
BASELINE AIR QUALITY
IN THE REDDING DISTRICT

BLM DISTRICT 6

POLLUTANT: Oxidant in parts per Hundred Million
Daily Maximum Hourly Average Concentrations

D-1

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL				CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			QUARTERLY							
				ARITHMETIC		GEOMETRIC		10%	50%	75%	JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
Chico	1975	260	11	44	1.9	4.0	1.6	7	4	3	3.4	6	4.9	9	6.0	11	3.1	9
Redding - Market	1975	208	11	4.9	2.2	4.4	1.7	8	4	3	3.3	8	5.8	11	7.1	11	-	-
POLLUTANT:	Ozone in Parts per Hundred Million Daily Maximum Hourly Average Concentrations																	
Red Bluff - Lincoln	1975	324	10	4.7	2.3	3.9	2.0	8	5	3	4.8	9	4.9	9	6.5	10	2.5	9
POLLUTANT:	Carbon Monoxide (NDIR) in parts per Million Daily Maximum Hourly Average Concentrations																	
Chico	1975	355	17	3.9	3.1	3.0	2.1	8	3	2	5.2	17	2.5	5	3.2	9	4.9	17
Red Bluff - Lincoln*	1975	76	4	1.4	0.7	1.3	1.6	2	1	1	-	-	-	-	1.4	4	1.4	3
Redding - Market	1975	209	10	3.1	1.4	2.9	1.5	5	3	2	3.8	10	2.5	5	3.0	4	-	-

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

* FID Method Not NDIR

BLM DISTRICT 6

POLLUTANT: Nitrogen Dioxide in Parts per Hundred Million - Colorimetric Method
Daily Maximum Hourly Average Concentrations

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL						QUARTERLY								
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
				10%			50%			75%								
Chico	1975	362	11	3.9	1.6	3.5	1.6	6	4	3	3.5	7	3.4	6	4.3	11	4.2	9
Red Bluff Lincoln*	1975	361	9	3.7	1.6	3.3	1.6	6	3	2	3.2	8	3.1	7	4.8	9	3.7	7
Redding - Market	1975	207	9	3.3	1.3	3.1	1.5	5	3	2	3.5	9	2.8	6	4.2	6	-	-

POLLUTANT: Nitric Oxide in Parts per Hundred Million - Colorimetric Method
Daily Maximum Hourly Average Concentrations.

Chico	1975	352	41	5.5	7.6	2.0	4.9	16	2	0	7.5	41	1.5	7	2.5	13	10.3	40
Red Bluff Lincoln*	1975	361	15	2.4	2.5	1.5	2.8	6	2	1	2.2	10	1.1	8	2.4	7	3.9	15
Redding - Market	1975	207	21	2.8	3.5	1.7	2.7	6	2	1	4.7	21	1.5	6	1.1	4	-	-

POLLUTANT: Oxides of Nitrogen in Parts per Hundred Million - Colorimetric Method
Daily Maximum Hourly Average Concentrations

Chico	1975	352	46	8.9	8.1	6.1	2.4	20	6	3	10.6	46	4.8	11	6.2	17	13.6	44
Red Bluff Lincoln*	1975	361	20	5.7	3.5	4.7	1.9	10	5	3	5.0	15	4.0	12	6.8	14	7.0	20
Redding - Market	1975	207	24	5.5	4.1	4.6	1.8	14	4	3	7.6	24	3.8	10	4.7	7	-	-

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6

POLLUTANT: Hydrocarbons in Parts per Million
Daily Maximum Hourly Average Concentrations

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL				QUARTERLY											
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.		
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	
							10%	50%	75%										
Chico	1975	322	10	2.8	1.2	2.7	1.4	4	2	2	3.2	10	2.1	3	2.6	8	3.3	7	
Red Bluff - Lincoln	1975	281	4	2.1	0.4	2.1	1.2	3	2	2	2.2	4	2.1	3	2.2	3	2.1	3	
Redding - Market	1975	210	7	2.2	0.5	2.1	1.2	3	2	2	2.4	7	2.0	3	2.1	3	-	-	
POLLUTANT: Suspended Particulates by the AISI Method Daily Maximum 2 HR COH Index (COH Values x 10)																			
Chico	1975	364	32	7.9	5.9	6.1	2.1	17	6	4	9.3	32	4.9	17	6.2	17	11.1	27	
Red Bluff - Lincoln	1975	290	14	3.4	2.1	2.8	2.0	6	3	2	3.3	7	3.4	9	2.0	4	4.1	14	
Redding - Market	1975	210	20	4.8	3.1	4.0	1.8	9	4	3	5.2	20	4.5	18	4.3	8	-	-	
Yreka	1975	30	1	1.0	0.2	1.0	1.3	1	1	1	1.0	1	-	-	-	-	-	-	

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6

POLLUTANT: Suspended Particulates by the HI-VOL Method
Micrograms per Cubic Meter

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL						QUARTERLY								
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS		JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.		
				MEAN	STD. DEV.	MEAN	STD. DEV.			ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	
								10%	50%	90%								
D-4 Anderson	1975	25	244	58.3	50.8	46.0	1.9	99	48	25	-	-	-	-	-	-	-	-
Burney	1975	51	112	53.0	26.9	45.2	1.9	87	52	26	-	-	-	-	-	-	-	-
Chico	1975	59	177	78.5	35.1	69.3	1.7	118	78	48	-	-	-	-	-	-	-	-
Corning	1975	57	151	59.1	30.4	51.0	1.8	100	59	27	-	-	-	-	-	-	-	-
Cottonwood	1975	43	123	36.8	24.5	29.4	2.0	68	32	14	-	-	-	-	-	-	-	-
McCloud	1975	55	259	80.3	55.6	61.1	2.3	150	73	32	-	-	-	-	-	-	-	-
Mt. Shasta	1975	56	124	50.5	24.4	44.3	1.7	78	50	30	-	-	-	-	-	-	-	-
Oroville - Bird St.	1975	56	124	50.5	24.4	44.3	1.7	78	50	30	-	-	-	-	-	-	-	-
Red Bluff - Lincoln	1975	58	174	59.2	34.9	49.1	1.9	104	55	27	-	-	-	-	-	-	-	-
Redding - Market	1975	32	94	45.3	17.3	42.0	1.5	65	47	27	-	-	-	-	-	-	-	-
Tule Lake Fairground	1975	46	105	35.5	26.0	25.4	2.5	71	34	12	-	-	-	-	-	-	-	-

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6

POLLUTANT:

Suspended Particulates by the HI-VOL Method
Micrograms per Cubic Meter

ANNUAL

QUARTERLY

D-5

STATION	YEAR	NO. OF CBS.	HIGH	ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD.DEV.	MEAN	STD.DEV.	10%	50%	80%	ARITH.	HIGH	ARITH.	HIGH	ARITH.	HIGH	ARITH.	HIGH
											MEAN	MEAN	MEAN	MEAN				
Weaverville Hospital	1975	26	86	36.4	20.2	31.4	1.8	67	35	19	-	-	-	-	-	-	-	-
Weed	1975	59	109	41.3	22.7	34.8	1.9	76	40	21	-	-	-	-	-	-	-	-
Yreka	1975	53	127	42.5	17.8	39.5	1.5	57	41	29	-	-	-	-	-	-	-	-

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

APPENDIX E
LONG-TERM BASELINE
AIR QUALITY IN THE
REDDING DISTRICT

BLM DISTRICT 6

POLLUTANT: Oxidant in Parts per Hundred Million
Daily Maximum Hourly Average Concentrations

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL						QUARTERLY								
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
							10%	50%	75%									
L F Chico	1975	260	11	4.4	1.9	4.0	1.6	7	4	3	3.4	6	4.9	9	6.0	11	3.1	9
	1974	360	11	5.0	2.2	4.5	1.6	8	4	3	3.5	6	5.6	11	7.3	11	3.8	9
	1973	364	12	5.3	2.4	4.6	1.7	9	5	3	3.5	7	6.5	11	7.5	12	3.6	9
	1972	365	16	6.1	3.2	5.2	1.8	11	5	4	4.0	11	7.7	13	9.0	16	3.8	11
	1971	365	15	5.7	3.2	4.7	2.0	10	5	3	3.4	8	6.0	10	9.2	15	4.1	12
	1970	111	10	4.1	2.5	3.2	2.3	8	3	3	-	-	-	-	6.3	9	3.6	10
Redding - Market	1975	208	11	4.9	2.2	4.4	1.7	8	4	3	3.3	8	5.8	11	7.1	11	-	-
	1974	363	12	5.1	2.5	4.5	1.7	9	4	3	3.6	7	5.6	11	7.7	12	3.4	8
	1973	365	12	4.8	2.5	4.2	1.7	9	4	3	3.1	6	5.6	10	7.4	12	3.1	9
	1972	365	16	5.3	3.1	4.5	1.8	10	4	3	3.3	7	6.7	13	8.1	16	3.2	9
	1971	361	16	5.6	3.4	4.6	2.0	10	5	3	3.0	7	6.3	10	9.4	16	3.6	11
	1970	206	16	6.1	3.5	5.0	2.0	11	5	3	-	-	6.6	13	8.9	16	3.2	11

POLLUTANT: Ozone in Parts per Hundred Million
Daily Maximum Hourly Average Concentrations.

Red Bluff- Lincoln	1975	324	10	4.7	2.3	3.9	2.0	8	5	3	4.8	9	4.9	9	6.5	10	2.5	9
	1974	126	13	5.2	2.4	4.6	1.6	8	4	3	-	-	-	-	7.2	13	4.0	8

Some data prior to July 1, 1975 reflect an 0.8 factor applied to hourly average concentrations.

ELM DISTRICT 6

STATION: Carbon Monoxide (NDIR) in Parts per Million
Daily Maximum Hourly Average Concentrations.

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL				QUARTERLY										
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
							10%	50%	75%									
E-2 Chico	1975	355	17	3.9	3.1	3.0	2.1	8	3	2	5.2	17	2.5	5	3.2	9	4.9	17
	1974	362	23	4.4	3.3	3.4	2.1	9	3	2	4.7	20	2.4	9	3.6	10	6.9	23
	1973	362	15	3.9	2.6	3.1	2.0	8	3	2	4.8	15	2.7	7	3.1	10	4.8	14
	1972	359	15	3.9	2.7	3.1	2.0	7	3	2	4.9	15	2.7	8	3.5	11	4.7	13
	1971	365	17	4.3	3.1	3.4	2.0	9	3	2	5.0	17	2.7	10	3.3	11	6.1	17
	1970	114	17	5.9	3.9	4.7	2.1	12	5	3	-	-	-	-	5.9	12	5.9	17
Red Bluff-Lincoln*	1975	76	4	1.4	0.7	1.3	1.6	2	1	1	-	-	-	-	1.4	4	1.4	3
Redding - Market	1975	209	10	3.1	1.4	2.9	1.5	5	3	2	3.8	10	2.5	5	3.0	4	-	-
	1974	365	12	2.8	1.4	2.6	1.5	4	3	2	2.7	9	2.1	4	2.7	7	3.8	12
	1973	361	10	3.1	1.2	2.9	1.5	5	3	2	3.6	8	2.2	4	3.1	5	3.6	10
	1972	363	14	4.1	1.6	3.8	1.4	6	4	3	4.9	14	3.4	6	3.8	10	4.1	9
	1971	357	17	4.0	1.7	3.7	1.5	6	4	3	4.4	17	3.1	6	3.5	8	4.9	10
	1970	207	15	4.1	2.2	3.7	1.6	6	4	3	-	-	4.6	15	3.8	8	4.3	14

Some data prior to July 1, 1975 reflect an 0.8 factor applied to hourly average concentrations.

* FID Method not NDIR

BLM DISTRICT 6

MONITORING

Nitrogen Dioxide in Parts per Hundred Million - Colorimetric Method
Daily Maximum Hourly Average Concentrations.

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL						QUARTERLY								
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
							10%	50%	75%									
E-3 Chico	1975	362	11	3.9	1.6	3.5	1.6	6	4	3	3.5	7	3.4	6	4.3	11	4.2	9
	1974	362	10	4.1	1.9	3.7	1.6	7	4	3	3.3	8	3.5	6	5.3	9	4.4	10
	1973	364	10	4.1	1.8	3.7	1.6	7	4	3	3.6	7	4.3	8	4.7	9	3.7	10
	1972	365	11	4.1	1.8	3.7	1.6	7	4	3	3.6	7	4.2	8	4.7	11	3.9	8
	1971	365	10	4.0	1.7	3.6	1.6	6	4	3	4.0	8	3.6	7	4.5	9	4.1	10
	1970	111	10	4.6	2.2	4.1	1.6	8	4	3	-	-	-	-	5.7	9	4.4	10
Red Bluff- Lincoln*	1975	361	9	3.7	1.6	3.3	1.6	6	3	2	3.2	8	3.1	7	4.8	9	3.7	7
	1974	136	12	4.9	2.2	4.4	1.7	8	5	3	-	-	-	-	6.0	12	4.4	10
Redding - Market	1975	207	9	3.3	1.3	3.1	1.5	5	3	2	3.5	9	2.8	6	4.2	6	-	-
	1974	359	11	3.8	1.8	3.4	1.6	6	4	3	3.4	6	3.0	7	4.7	11	4.2	9
	1973	365	9	3.9	1.6	3.5	1.5	6	3	3	3.5	6	3.2	7	5.1	9	3.6	9
	1972	363	9	3.9	1.6	3.6	1.5	6	4	3	3.7	8	3.5	7	4.8	9	3.8	8
	1971	363	9	4.0	1.7	3.6	1.5	7	4	3	4.1	9	3.2	6	4.6	9	4.1	9
	1970	207	11	4.9	2.2	4.4	1.6	8	4	3	-	-	4.1	9	5.9	10	4.2	11

Some data prior to July 1, 1975 reflect an 0.8 factor applied to hourly average concentrations.

BLM DISTRICT 6

POLLUTANT:

Nitric Oxide in Parts per Hundred Million - Colorimetric Method
Daily Maximum Hourly Average Concentrations.

ANNUAL										QUARTERLY								
STATION	YEAR	NO. OF CBS.	HIGH	ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.	10%	50%	75%	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
E-4 Chico	1975	352	41	5.5	7.6	2.0	4.9	16	2	0	7.5	41	1.5	7	2.5	13	10.3	40
	1974	360	48	5.5	7.1	2.2	4.6	15	3	1	6.4	31	1.9	18	2.4	14	11.5	48
	1973	364	29	4.6	6.0	1.8	4.5	14	1	0	8.2	27	1.9	12	1.8	16	6.4	29
	1972	362	40	5.2	6.6	2.1	4.6	14	3	0	8.6	40	2.0	15	3.1	15	7.3	30
	1971	334	39	5.6	7.1	2.2	4.6	16	2	1	7.3	24	1.8	17	2.6	16	11.2	39
	1970	111	31	7.5	7.3	3.8	4.1	20	5	1	-	-	-	-	6.6	15	7.8	31
	1969	111	31	7.5	7.3	3.8	4.1	20	5	1	-	-	-	-	6.6	15	7.8	31
Red Bluff- Lincoln*	1975	361	15	2.4	2.5	1.6	2.8	6	2	1	2.2	10	1.1	8	2.4	7	3.9	15
	1974	136	20	3.8	3.6	2.4	2.9	9	3	1	-	-	-	-	2.6	8	4.5	20
Redding - Market	1975	207	21	2.8	3.5	1.7	2.7	6	2	1	4.7	21	1.5	6	1.1	4	-	-
	1974	359	25	2.9	3.4	1.7	3.1	7	2	1	3.1	13	1.0	6	1.6	13	5.8	25
	1973	365	17	2.6	2.6	1.7	2.7	6	2	1	3.8	15	1.2	5	1.7	7	3.8	17
	1972	362	27	3.1	4.0	1.6	3.3	8	2	1	4.9	27	0.9	5	1.6	20	5.0	26
	1971	363	29	2.8	3.8	1.5	3.3	8	2	1	3.6	29	1.0	3	1.4	12	5.3	19
	1970	207	15	2.4	2.4	1.6	2.7	5	2	1	-	-	2.0	4	1.7	7	3.2	15

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6

PERCENTAGE: Oxides of Nitrogen in Parts per Hundred Million - Colorimetric Method
Daily Maximum Hourly Average Concentrations.

STATION	YEAR	NO. OF CBS.	HIGH	ANNUAL						QUARTERLY								
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS		JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.		
				MEAN	STD. DEV.	MEAN	STD. DEV.			ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	
								10%	50%	75%								
G - F Chico	1975	352	46	8.9	8.1	6.1	2.4	20	6	3	10.6	46	4.8	11	6.2	17	13.6	44
	1974	361	53	9.2	7.5	6.7	2.3	19	7	4	9.2	34	5.1	23	7.2	22	15.1	53
	1973	364	33	8.2	6.4	6.2	2.2	18	6	3	11.4	32	5.8	16	6.2	22	9.6	33
	1972	362	46	8.9	7.1	6.6	2.2	18	7	4	11.7	46	6.0	19	7.3	21	10.6	35
	1971	365	43	9.0	7.5	6.3	2.4	19	6	3	9.5	28	5.2	22	6.5	20	14.6	43
	1970	111	34	11.3	7.9	8.6	2.3	24	10	5	-	-	-	-	11.3	24	11.4	34
Red Bluff- Lincoln*	1975	361	20	5.7	3.5	4.7	1.9	10	5	3	5.0	17	4.0	12	6.8	14	7.0	20
	1974	136	24	8.1	4.7	6.7	1.9	16	7	4	-	-	-	-	7.9	16	8.2	24
Redding - Market	1975	207	24	5.5	4.1	4.6	1.8	10	4	3	7.6	24	3.8	10	4.7	7	-	-
	1974	365	33	6.1	4.0	5.1	1.8	11	5	3	5.9	16	3.7	8	5.6	18	9.3	33
	1973	365	20	6.0	3.0	5.3	1.7	10	5	4	6.9	20	4.1	9	6.0	13	6.8	19
	1972	365	35	6.6	4.5	5.5	1.8	13	5	4	8.2	35	4.0	7	6.0	16	8.3	28
	1971	363	33	6.4	4.3	5.3	1.8	12	5	3	7.0	33	3.9	9	5.8	14	8.8	23
	1970	207	19	6.6	3.4	6.0	1.7	12	6	4	-	-	5.4	12	7.2	13	7.0	19

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

* Chemiluminescent Method

BLM DISTRICT 6

MONITORING: Hydrocarbons in Parts per Million
Daily Maximum Hourly Average Concentrations.

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL							QUARTERLY							
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.	10%	50%	75%	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
Chico	1975	322	10	2.8	1.2	2.7	1.4	4	2	2	3.2	10	2.1	3	2.6	8	3.3	7
	1974	365	9	3.7	1.1	3.5	1.3	5	3	3	3.7	7	3.2	5	3.4	5	4.4	9
	1973	364	7	3.7	1.0	3.6	1.3	5	4	3	4.3	7	3.6	6	3.5	6	3.5	7
	1972	362	10	3.9	1.2	3.7	1.3	5	4	3	4.4	9	3.4	5	3.6	10	4.1	7
	1971	364	18	4.0	1.3	3.9	1.3	5	4	3	4.4	18	3.5	6	3.9	7	4.3	11
	1970	115	9	4.5	1.5	4.3	1.4	7	4	3	-	-	-	-	4.7	8	4.5	9
Red Bluff-Lincoln	1975	281	4	2.1	0.4	2.1	1.2	3	2	2	2.2	4	2.1	3	2.2	3	2.1	3
	1974	132	6	2.6	0.7	2.6	1.3	3	3	2	-	-	-	-	2.6	4	2.7	6
Redding - Market	1975	210	7	2.2	0.5	2.1	1.2	3	2	2	2.4	7	2.0	3	2.1	3	-	-
	1974	362	7	2.8	0.8	2.7	1.3	4	3	2	2.8	4	2.3	3	2.7	5	3.3	7
	1973	361	6	3.1	0.7	3.0	1.2	4	3	3	3.2	6	2.9	4	3.2	5	3.1	5
	1972	366	9	3.4	0.7	3.3	1.2	1	3	3	3.6	7	3.1	5	3.6	9	3.3	6
	1971	365	9	3.3	0.9	3.2	1.3	4	3	3	3.1	7	3.1	9	3.5	7	3.7	7
	1970	205	15	3.7	1.7	3.4	1.4	5	3	3	-	-	3.6	15	3.9	13	3.5	11

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6

POLLUTANT:

Suspended Particulates by the AISI Method
Daily Maximum 2 HR COH Index (COH Values x 10)

LOCATION	YEAR	NO. OF G.S.	HIGH	ANNUAL								QUARTERLY							
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.		
				MEAN	STD. DEV.	MEAN	STD. DEV.	10%	50%	75%	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	
E-7 Chico	1975	364	32	7.9	5.9	6.1	2.1	17	6	4	9.3	32	4.9	17	6.2	17	11.1	27	
	1974	365	38	7.6	6.1	5.8	2.1	16	5	3	7.4	20	3.7	10	5.6	14	13.6	38	
	1973	364	27	6.3	4.5	5.1	1.9	13	5	3	7.5	27	4.3	10	5.4	26	7.9	22	
	1972	356	27	6.4	4.3	5.3	1.8	12	5	4	8.8	27	3.9	8	5.2	12	7.9	25	
	1971	365	62	7.6	6.2	6.0	2.0	14	6	4	10.1	62	4.1	10	5.8	16	10.4	23	
	1970	79	16	6.4	3.9	5.1	2.1	12	6	3	-	-	-	-	-	-	6.4	16	
Rod Bluff- Lincoln	1975	290	14	3.4	2.1	2.8	2.0	6	3	2	3.3	7	3.4	9	2.0	4	4.1	14	
	1974	128	9	4.2	1.7	3.8	1.6	7	4	3	-	-	-	-	4.4	9	4.1	9	
Roeding - Market	1975	210	20	4.8	3.1	4.0	1.8	9	4	3	5.2	20	4.5	18	4.3	8	-	-	
	1974	359	17	4.5	2.8	3.8	1.8	8	4	3	5.0	15	2.8	6	4.0	12	6.4	17	
	1973	360	17	4.8	2.7	4.2	1.7	8	4	3	5.0	17	3.6	9	4.5	12	6.0	17	
	1971	366	20	4.5	3.4	3.5	2.0	10	3	2	5.0	17	2.3	6	3.8	15	7.0	20	
	1971	356	18	4.3	3.1	3.4	2.0	9	3	2	6.4	18	2.7	12	3.0	12	5.0	15	
	1970	201	12	4.3	2.0	3.8	1.6	7	4	3	-	-	3.3	6	3.8	7	5.0	12	
Yreka	1975	30	1	1.0	0.2	1.0	1.3	1	1	1	1.0	1	-	-	-	-	-	-	
	1974	134	1	1.0	0.1	1.0	1.2	1	1	1	1.0	1	-	-	-	-	1.0	1	
	1973	141	3	0.8	0.5	0.7	1.9	1	1	1	1.0	3	0.7	1	-	-	-	-	

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6

POLLUTANT: Suspended Particulates by the HI-VOL Method
Micrograms per Cubic Meter

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL				CONC. EQUALED OR EXCEEDED BY STATELY % OF OBSERVATIONS			QUARTERLY							
				ARITHMETIC		GEOMETRIC		10%	50%	80%	JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
El Centro	Anderson	1975	25	244	58.3	50.8	46.0	1.9	99	48	25	-	-	-	-	-	-	-
		1974	47	228	70.7	39.0	61.4	1.7	126	68	36	-	-	-	-	-	-	-
		1973	57	443	72.8	64.6	54.7	2.2	128	52	27	-	-	-	-	-	-	-
	Burney	1975	51	112	53.0	26.9	45.2	1.9	87	52	26	-	-	-	-	-	-	-
	Chico	1975	59	177	78.5	35.1	69.3	1.7	118	78	48	-	-	-	-	-	-	-
		1974	60	199	86.2	38.2	77.6	1.6	136	76	58	-	-	-	-	-	-	-
		1973	47	197	87.5	42.2	77.0	1.7	147	89	51	-	-	-	-	-	-	-
		1972	60	121	68.1	24.7	63.1	1.5	97	70	46	-	-	-	-	-	-	-
		1971	70	174	62.3	33.3	53.7	1.8	107	58	29	-	-	-	-	-	-	-
	1970	18	154	55.7	41.7	42.1	2.2	117	54	19	-	-	-	-	-	-	-	
Corning	1975	57	151	59.1	30.4	51.0	1.8	100	59	27	-	-	-	-	-	-	-	
	1974	55	195	68.4	40.6	58.2	1.8	126	59	36	-	-	-	-	-	-	-	
Cottonwood	1974	43	123	36.8	24.5	29.4	2.0	68	32	14	-	-	-	-	-	-	-	
McCloud	1975	55	259	80.3	55.6	61.1	2.3	150	73	32	-	-	-	-	-	-	-	
	1974	4	69	44.3	22.7	39.8	1.7	69	58	24	-	-	-	-	-	-	-	
Mt. Shasta	1975	60	149	62.4	27.6	56.9	1.5	92	58	40	-	-	-	-	-	-	-	
	1974	34	207	111.0	42.2	101.8	1.6	163	110	77	-	-	-	-	-	-	-	

BLM DISTRICT 6
WYOMING

Suspended Particulates by the HI-VOL Method
Micrograms per Cubic Meter

		ANNUAL							QUARTERLY									
STATION	YEAR	NO. OF OBS.	HIGH	ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.	10%	50%	80%	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
F 19	Oraville Bird St.	1975	58	174	59.2	34.9	49.1	1.9	104	55	27	-	-	-	-	-	-	-
		1974	35	131	63.1	24.9	58.0	1.5	98	57	50	-	-	-	-	-	-	-
	Red Bluff-Lincoln	1975	58	174	59.2	34.9	49.1	1.9	104	55	27	-	-	-	-	-	-	-
		1974	21	145	67.6	39.4	55.5	2.0	120	60	27	-	-	-	-	-	-	-
	Redding - Market	1975	32	94	45.3	17.3	42.0	1.5	65	47	27	-	-	-	-	-	-	-
		1974	58	137	49.1	22.2	44.7	1.6	79	46	30	-	-	-	-	-	-	-
		1973	60	137	46.2	22.6	41.4	1.6	80	45	27	-	-	-	-	-	-	-
		1972	57	152	58.0	29.0	51.8	1.6	95	51	35	-	-	-	-	-	-	-
		1971	67	105	49.7	23.8	44.3	1.6	93	44	30	-	-	-	-	-	-	-
		1970	21	125	47.0	24.7	42.0	1.6	72	40	29	-	-	-	-	-	-	-
	Tule Lake-Background	1975	46	105	35.5	26.0	25.4	2.5	71	34	12	-	-	-	-	-	-	-
		1974	54	159	47.4	28.0	38.9	2.0	84	43	27	-	-	-	-	-	-	-
		1973	28	135	41.2	31.7	31.7	2.1	71	36	18	-	-	-	-	-	-	-

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

BLM DISTRICT 6
 POLLUTANT: Suspended Particulates by the HI-VOL Method
 Micrograms per Cubic Meter

STATION	YEAR	NO. OF OBS.	HIGH	ANNUAL						QUARTERLY								
				ARITHMETIC		GEOMETRIC		CONC. EQUALED OR EXCEEDED BY STATED % OF OBSERVATIONS			JAN. - MAR.		APR. - JUN.		JUL. - SEPT.		OCT. - DEC.	
				MEAN	STD. DEV.	MEAN	STD. DEV.				ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH	ARITH. MEAN	HIGH
										10%	50%							
E-10	Weaverville Hospital	1975	26	86	36.4	20.2	31.4	1.8	67	35	19	-	-	-	-	-	-	-
		1974	26	61	32.5	13.1	29.7	1.6	47	33	20	-	-	-	-	-	-	-
		1973	3	54	43.0	10.5	42.1	1.3	54	42	33	-	-	-	-	-	-	-
	Weed	1975	59	109	41.3	22.7	34.8	1.9	76	40	21	-	-	-	-	-	-	-
		1974	29	90	46.7	17.5	42.1	1.7	75	47	34	-	-	-	-	-	-	-
	Yreka	1975	53	127	42.5	17.8	39.5	1.5	57	41	29	-	-	-	-	-	-	-
		1974	58	124	49.9	24.6	43.9	1.7	77	46	32	-	-	-	-	-	-	-
		1973	57	79	43.8	17.2	40.3	1.5	64	42	29	-	-	-	-	-	-	-
		1972	53	88	46.2	17.8	42.5	1.5	70	43	30	-	-	-	-	-	-	-
1971		45	98	43.2	18.6	38.9	1.6	66	44	28	-	-	-	-	-	-	-	

Some data prior to July 1, 1975 reflect an 0.8 factor applied to average hourly concentrations.

APPENDIX F
1976 - EMISSIONS DATA FOR
THE REDDING DISTRICT POINT SOURCES

COUNTY: BUTTE CO.

AQCR: SACRAMENTO VALLEY (028)

SOURCE:		Stack Height	Inside Stack Diameter	Exit Temp.	Exit Velocity	Vol. Flow Rate	Annual Tonnage Emission				
		Ft.	Ft.	F ⁰	FPS	ACFM	TSP	SO _x	NO _x	HC	CO
BUTTE CREEK	01	-	-	150	-	-					
ROCK CO.	02	-	-	50	-	-					
CHICO	03	-	-	50	-	-					
	04	-	-	50	-	-	294	0	0	0	0
CAL. OAK LUMBER		-	-	700	-	-	320	0	32	208	2080
ORDVILLE											
DIAMOND		-	-	-	-	-	157	0	3	6	83
INTERNATIONAL											
CHICO											
FEATHER RIVER		-	-	700	-	-	30	0	1	11	108
WD.											
OROVILLE											
FOREST IND. LTD.		-	-	700	-	-	91	0	9	59	155
OROVILLE											
LA. PACIFIC CORP.		-	-	700	-	-	250	0	25	163	1625
OROVILLE											
ROBINSON CONST.	01	20	5.0	150	-	-					
OROVILLE	02	-	-	77	-	-					
	03	-	-	50	-	-	188	2	4	1	1

COUNTY: GLENN CO.

AQCR: SACRAMENTO VALLEY (028)

COMMANDER IND. INC.		-	-	700	-	-	109	1	29	78	1016
ELK CREEK											
KAISER INDUSTRY		-	-	200	-	-	308	5	11	1	1
HAMILTON CITY											
VALLEY ROCK PROD.		-	-	50	-	-	322	0	0	0	0
ORLAND											
HOLLY SUGAR CORP.		-	-	-	-	-	241	0	0	0	0
HAMILTON											

COUNTY: SHASTA CO.

AQCR: SACRAMENTO VALLEY (028)

SOURCE	Stack Height	Inside Stack Diameter	Exit Temp.	Exit Velocity	Vol. Flow Rate	Annual Tonnage Emission					
						Ft.	Ft.	F ⁰	FPS	ACFM	TSP
J. H. BAXTER REDDING	38	-	600	-	-	18	0	4	23	234	
KIMBERLY CLARK CORP., ANDERSON (2 PLANTS)	01 02 03	- - -	700 700 77	- - -	- - -	758	0	129	352	6280	
MORGAN PAVING REDDING	-	-	-	-	-	193	0	1	0	0	
PAUL BUNYAN ANDERSON	70	-	700	-	-	280	0	40	214	2279	
KEMKER, INC. COTTONWOOD	-	-	400	0	0	20	0	2	13	127	
PUBLISHERS FOREST PROD. BURNEY	01 02 03 04	70 187 200 -	3.0 0.4 0.6 -	900 460 480 70	- - - -	- - - -	250	0	40	100	1354
SHASTA MOULDING CO. REDDING	01 02	- -	400 70	- -	- -	40	0	3	24	254	
SUPERIOR MOULDING CO. COTTONWOOD	-	-	600	0	0	98	0	7	43	432	
U. S. PLYWOOD REDDING	01 02 03 04 05 06	50 50 50 40 - -	7.0 7.0 6.5 4.4 - -	600 600 500 250 70 70	- - - - - -	- - 39000 - - -	791	0	122	219	3244
B&D LUMBER REDDING	01 02	- 48	- -	70 400	- -	- -	446	0	28	179	1790
SIMPSON-LEE PULMILL ANDERSON	-	-	-	-	-	791	121	0	0	1450	
			F-2								

COUNTY: SHASTA CO.

AQCR: SACRAMENTO VALLEY (028)

SOURCE	Stack Height	Inside Stack Diameter	Exit Temp.	Exit Velocity	Vol. Flow Rate	Annual Tonnage Emission				
						Ft.	Ft.	F ^o	FPS	ACFM
ANDERSON-COTTONWOOD OPEN BURNING DUMP	-	-	-	-	-	61	4	23	161	326
CLEAR CREEK OPEN BURNING DUMP	-	-	-	-	-	26	2	10	69	140
B & D LUMBER ENTERPRISE	01	-	-	400	-	-	-	-	-	-
	02	-	-	700	-	-	-	-	-	-
FLINT KOTE CO. REDDING	01	-	-	-	-	78000	-	-	-	-
	02	-	-	77	-	80000	-	-	-	-
	03	-	-	77	-	80000	322	1	127	43
ELKINS SAWMILL ANDERSON		55	-	700	-	-	48	0	7	55
LORENZ LUMBER CO.	01	70	2.5	77	-	-	-	-	-	-
	02	30	2.5	77	-	-	-	-	-	-
BURNEY	03	70	3.0	700	-	-	314	0	52	180
SIERRA PACIFIC REDDING		65	-	700	-	-	584	0	67	478
J. F. SHEA, INC. REDDING		-	-	150	-	-	330	3	7	1

COUNTY: TEHAMA CO.

AQCR: SACRAMENTO VALLEY (028)

COMMANDER INDUSTRIES RED BLUFF	01	-	-	300	-	-	341	0	73	270	2091
	02	-	-	100	-	-	-	-	-	-	-
CRANE MILLS CORNING	01	-	-	800	-	-	77	0	32	175	773
	02	-	-	500	-	-	-	-	-	-	-
DIAMOND INTERNATIONAL RED BLUFF	01	-	-	700	-	-	-	-	-	-	-
	02	-	-	500	-	-	-	-	-	-	-
	03	-	-	100	-	-	274	2	752	298	63

COUNTY: TRINITY

AQCR: NORTH COAST (026)

SOURCE	Stack Height	Inside Stack Diameter	Exit Temp.	Exit Velocity	Vol. Flow Rate	Annual Tonnage Emission				
	Ft.	Ft.	F ^o	FPS	ACFM	TSP	SO _x	NO _x	HC	CO
CARLINA PAC. PLYWOOD 01	-	-	300	-	-	221	0	38	76	656
BURNT RANCH 02	-	-	200	-	-					
LA. PAC. CORP. BRIDGEVILLE	-	-	400	-	-	188	0	19	122	1220
HYAPOM LUMBER CO. HYAPOM	-	-	700	-	-	163	0	17	106	1060
KIMBERLY CLARK PLATINA	-	-	700	-	-	169	0	17	110	1100
NATIONAL FOREST SHASTA-TRINITY	-	-	200	-	-	814	0	81	1630	5290
NATIONAL FOREST SIX RIVERS	-	-	200	-	-	895	0	90	1790	5820
TRINCO FOREST 01	-	-	700	-	-	384	0	131	247	2299
PRODUCTS 02	115	3.3	-	-	-					
WEAVERVILLE 03	-	-	-	-	-					
SIERRA PACIFIC IND. HAYFORK	-	-	50	-	-	300	0	0	0	0
TRINITY NATIONAL FOREST	-	-	-	-	-	730	0	73	1460	4750

COUNTY: SISKIYOU

AQCR: NORTHEAST PLATEAU (027)

YREKA CITY OPEN BURNING DUMP	-	-	-	-	-	29	2	11	77	155
WEED CITY OPEN BURNING DUMP	-	-	-	-	-	26	2	10	70	140
HI RIDGE LUMBER CO. MONTAGUE	-	-	700 F-4	-	-	24	0	2	16	156

COUNTY: SISKIYOU

AQCR: NORTHEAST PLATEAU (027)

SOURCE	Stack Height	Inside Stack Diameter	Exit Temp.	Exit Velocity	Vol. Flow Rate	Annual Tonnage Emission					
						FT.	FT.	F ^o	FPS	ACFM	TSP
CHENEY GRANT LUMBER MILL PONDOSA	-	-	400	-	-	315	21	51	203	2021	
COOPERS MILL MT. SHASTA	-	-	700	-	-	58	0	6	38	378	
DORRIS LUMBER & MOULDING CO. DORRIS	-	-	700	-	-	42	0	4	27	273	
FRUIT GROWERS SUPPLY CO. HILT	-	-	400	-	-	473	0	59	313	2845	
INTERNATIONAL PAPER WEED	01 02 03 04	200 200 200 40	5.5 6.5 6.5 6.0	515 540 - 522	- - - -	22879 21858 - 27700	804	0	324	644	9690
KIMBERLY CLARK CORP. MT. SHASTA	-	-	700	-	-	450	0	45	292	2920	
KLAMATH MOULDING YREKA 2 PLANTS	01 02	- -	- -	400 700	- -	- -	31	0	3	20	203
FINE MTN. LUMBER CO. YREKA	01 02	- -	- -	70 800	- -	- -	171	21	11	84	976
SHASTA ASPHALT PRODUCTS MT. SHASTA	-	-	50	-	-	513	0	0	0	0	
SALVAGE AND SALES YREKA	-	-	77	-	-	100	0	5	50	125	
U. S. PLYWOOD MCLOUD	01 02 03	165 120 120	8.0 - -	600 550 550	- - -	- - -	281	85	108	224	112
SIERRA PACIFIC HAPPY CAMP	01 02 03	- - -	- - -	77 - 400	- - -	- - -	325	0	54	190	1216
CAROLINA PACIFIC HAPPY CAMP	-	-	77	-	-	552	0	55	359	3590	

APPENDIX G
1976 - EMISSIONS DATA FOR
THE REDDING DISTRICT AREA SOURCES

COUNTY: BUTTE					
SOURCE:	TSP	SO _x	NO _x	HC	CO
FUEL COMBUSTION (EXTERNAL) - TOTAL	136	62	373	90	126
Residential Fuel - Total	105	12	205	83	109
Distillate Oil	2	6	3	1	1
Natural Gas	21	1	170	17	43
Wood	81	5	33	65	65
Industrial Fuel - Total	12	21	73	2	6
Residual	10	21	26	1	2
Natural Gas	3	0	47	1	4
Comm-Institutional Fuel - Total	18	29	94	6	11
Residual Oil	9	19	24	1	2
Distillate Oil	5	9	19	1	1
Natural Gas	4	0	51	3	8
SOLID WASTE DISPOSAL - TOTAL	239	9	40	580	1710
Residential - Total	224	7	34	557	1645
On Site Incineration	145	2	5	408	1224
Open Burning	79	5	30	149	421
Comm-Institutional - Total	8	1	3	13	37
On Site Incineration	2	1	1	1	3
Open Burning	6	0	2	12	34
Industrial - Total	6	1	2	10	28
On Site Incineration	2	1	1	1	2
Open Burning	5	0	2	9	26
TRANSPORTATION - TOTAL	608	313	5710	7104	48106
Land Vehicles					
Gasoline - Total	446	131	4044	6464	46652
Light Vehicles	392	110	3443	5179	34690
Heavy Vehicles	37	12	407	737	5746
Off Highway	17	9	194	548	6217
Diesel - Total	139	176	1636	244	792
Heavy Vehicles	47	60	526	69	454
Off Highway	67	60	744	81	210
Rail	25	56	366	93	129
Aircraft - Total	22	4	20	96	549
Civil	22	4	20	96	549

COUNTY: BUTTE

SOURCE:	TSP	SO _x	NO _x	HC	CO
Vessels - Total	1	1	10	37	113
Diesel Fuel	1	1	9	2	3
Gasoline	0	0	1	34	110
Gas Handling Evap. Loss	0	0	0	263	0
MISCELLANEOUS - TOTAL	452	0	106	3973	3726
Forest Fires	452	0	106	639	3726
Solvent Evaporation Loss	0	0	0	3334	0
GRAND TOTAL FOR BUTTE COUNTY	1435	384	6229	11747	53668

COUNTY: GLENN

SOURCE:	TSP	SO _x	NO _x	HC	CO
FUEL COMBUSTION (EXTERNAL) - TOTAL	31	13	68	21	27
Residential Fuel - Total	25	3	35	20	24
Distillate Oil	1	2	1	0	0
Natural Gas	3	0	25	3	6
Wood	21	1	9	17	17
Industrial Fuel - Total	3	4	19	0	2
Residual Oil	2	4	5	0	0
Natural Gas	1	0	14	0	1
Comm-Institutional Fuel - Total	3	6	15	1	2
Residual Oil	2	4	5	0	0
Distillate Oil	1	2	4	0	0
Natural Gas	0	0	5	0	1
SOLID WASTE DISPOSAL - TOTAL	41	1	7	99	292
Residential - Total	39	1	6	96	283
On Site Incineration	25	0	1	70	211
Open Burning	14	1	5	26	72
Comm-Institutional - Total	1	0	0	2	5
On Site Incineration	0	0	0	0	1
Open Burning	1	0	0	2	4
Industrial - Total	1	0	0	2	4
Open Burning	1	0	0	2	4
TRANSPORTATION	155	77	1478	1662	9398
Land Vehicles					
Gasoline - Total	108	31	1021	1387	8967
Light Vehicles	96	27	881	1130	6677
Heavy Vehicles	9	3	104	157	1151
Off Highway	3	2	36	100	1139
Diesel - Total	38	42	440	56	158
Heavy Vehicles	8	10	97	10	57
Off Highway	26	23	284	31	80
Rail	4	9	59	15	21
Aircraft - Total	9	2	8	39	221
Civil	9	2	8	39	221

COUNTY: GLENN					
SOURCE:	TSP	SO _x	NO _x	HC	CO
Vessels - Total	1	1	9	18	52
Diesel Fuel	1	1	9	2	3
Gasoline	0	0	0	15	49
Gas Handling Evap. Loss	0	0	0	162	0
MISCELLANEOUS - TOTAL	11	0	1	518	40
Slash Burning	11	0	1	13	40
Solvent Evaporation Loss	0	0	0	505	0
GRAND TOTAL FOR GLENN COUNTY	238	92	1554	2300	9757

COUNTY: SHASTA

SOURCE:	TSP	SO _x	NO _x	HC	CO
FUEL COMBUSTION (EXTERNAL) - TOTAL	196	77	341	136	162
Residential Fuel - Total	165	25	171	129	146
Distillate Oil	5	15	6	2	3
Natural Gas	13	1	106	11	26
Wood	146	9	59	117	117
Industrial Fuel - Total	18	30	110	3	9
Residual Oil	14	29	37	2	2
Natural Gas	4	0	73	1	7
Comm-Institutional - Total	13	23	61	3	7
Residual Oil	7	15	19	1	1
Distillate Oil	4	7	16	1	1
Natural Gas	2	0	26	2	4
SOLID WASTE DISPOSAL - TOTAL	181	7	30	440	1298
Residential - Total	171	5	26	423	1252
On Site Incineration	111	2	3	311	933
Open Burning	60	4	22	113	319
Comm-Institutional - Total	7	1	3	12	32
On Site Incineration	2	1	1	1	2
Open Burning	6	0	2	11	30
Industrial - Total	3	0	1	5	14
On Site Incineration	1	0	0	1	1
Open Burning	2	0	1	5	13
TRANSPORTATION - TOTAL	607	279	6176	7063	34340
Land Vehicles					
Gasoline - Total	498	145	4920	5713	32209
Light Vehicles	443	124	4268	4667	23286
Heavy Vehicles	42	14	506	635	4267
Off Highway	13	7	146	411	4657
Diesel - Total	97	127	1208	160	394
Heavy Vehicles	37	47	469	39	166
Off Highway	41	37	459	50	129
Rail	19	43	279	71	98
Aircraft - Total	11	5	35	73	267
Military	2	0	1	5	5
Civil	7	1	7	33	189
Commercial	2	3	27	35	73

COUNTY: SHASTA					
SOURCE:	TSP	SO _x	NO _x	HC	CO
Vessels - Total	0	3	14	462	1470
Gasoline	0	3	14	462	1470
Gas Handling Evap. Loss	0	0	0	654	0
MISCELLANEOUS - TOTAL	1928	0	432	5307	14995
Forest Fires	1740	0	409	2457	14331
Slash Burning	188	0	22	221	664
Solvent Evaporation Loss	0	0	0	2629	0
GRAND TOTAL FOR SHASTA COUNTY	2912	364	6979	12946	50794

COUNTY: SISKIYOU					
SOURCE:	TSP	SO _x	NO _x	HC	CO
FUEL COMBUSTION (EXTERNAL) - TOTAL	328	125	690	231	296
Residential Fuel - Total	278	52	376	217	261
Bituminous Coal	0	2	0	0	2
Distillate Oil	12	34	14	4	6
Natural Gas	34	2	269	27	67
Wood	233	14	93	186	186
Industrial Fuel - Total	17	25	134	3	12
Residual Oil	12	24	31	2	2
Natural Gas	6	0	103	2	10
Comm-Institutional Fuel - Total	32	48	180	11	23
Residual Oil	15	32	40	2	3
Distillate Oil	8	16	32	2	2
Natural Gas	9	1	107	7	18
SOLID WASTE DISPOSAL - TOTAL	78	3	13	189	559
Residential - Total	74	2	11	183	540
On Site Incineration	47	1	1	133	400
Open Burning	26	2	10	50	140
Comm-Institutional - Total	3	0	1	5	14
On Site Incineration	1	0	0	1	1
Open Burning	2	0	1	5	13
Industrial - Total	1	0	0	2	5
On Site Incineration	0	0	0	0	1
Open Burning	1	0	0	2	4
TRANSPORTATION - TOTAL	1407	662	14324	16021	80590
Land Vehicles					
Gasoline - Total	1141	332	11232	13279	76353
Light Vehicles	1013	284	9719	10791	54865
Heavy Vehicles	96	32	1153	1473	9983
Off Highway	32	17	360	1015	11505
Diesel - Total	246	320	3049	404	1012
Heavy Vehicles	93	119	1185	100	439
Off Highway	106	95	1173	128	331
Rail	47	106	690	175	242

COUNTY: SISKIYOU

SOURCE:	TSP	SO _x	NO _x	HC	CO
Aircraft - Total	20	4	18	90	512
Civil	20	4	18	90	512
Vessels - Total	0	6	25	853	2713
Gasoline	0	6	25	853	2713
Gas Handling Evap. Loss	0	0	0	1396	0
MISCELLANEOUS	2933	0	548	8638	18481
Forest Fires	1727	0	406	2438	14224
Slash Burning	1206	0	142	1419	4257
Solvent Evaporation Loss	0	0	0	4781	0
GRAND TOTAL FOR SISKIYOU COUNTY	4747	789	15576	25080	99925

COUNTY: TEHAMA

SOURCE:	TSP	SO _x	NO _x	HC	CO
FUEL COMBUSTION (EXTERNAL) - TOTAL	72	26	112	51	61
Residential Fuel - Total	63	10	62	50	56
Bituminous Coal	0	1	0	0	1
Distillate Oil	2	5	2	1	1
Natural Gas	5	0	37	4	9
Wood	56	3	23	45	45
Industrial Fuel - Total	5	9	33	1	3
Residual Oil	4	9	11	1	1
Natural Gas	1	0	22	0	2
Comm-Institutional Fuel - Total	4	6	17	1	2
Residual Oil	2	4	5	0	0
Distillate Oil	1	2	4	0	0
Natural Gas	1	0	7	0	1
SOLID WASTE DISPOSAL - TOTAL	69	3	11	167	493
Residential - Total	64	2	10	160	474
On Site Incineration	42	1	1	118	355
Open Burning	22	1	8	42	119
Comm-Institutional - Total	3	0	1	5	14
On Site Incineration	1	0	0	1	1
Open Burning	2	0	1	5	13
Industrial - Total	1	0	0	2	5
On Site Incineration	0	0	0	0	1
Open Burning	1	0	0	2	4
TRANSPORTATION - TOTAL	278	123	2696	3350	18683
Land Vehicles					
Gasoline - Total	226	65	2138	2877	18312
Light Vehicles	202	57	1863	2389	14121
Heavy Vehicles	19	6	221	333	2436
Off Highway	5	3	55	155	1755
Diesel - Total	46	55	543	73	210
Heavy Vehicles	14	17	163	17	96
Off Highway	25	23	280	31	79
Rail	7	15	100	25	35

COUNTY: TEHAMA					
SOURCE:	TSP	SO _x	NO _x	HC	CO
Aircraft - Total	6	1	5	25	142
Civil	6	1	5	25	142
Vessels - Total	1	1	9	7	19
Diesel Fuel	1	1	9	2	3
Gasoline	0	0	0	5	16
Gas Handling Evap. Loss	0	0	0	367	0
MISCELLANEOUS - TOTAL					
Forest Fires	410	0	97	579	3379
Slash Burning	69	0	8	81	244
Solvent Evaporation Loss	0	0	0	970	0
GRAND TOTAL FOR TEHAMA COUNTY	899	151	2924	5199	22860

COUNTY: TRINITY

SOURCE:	TSP	SO _x	NO _x	HC	CO
FUEL COMBUSTION (EXTERNAL) - TOTAL	111	16	72	86	89
Residential Fuel - Total	107	9	55	86	88
Distillate Oil	1	3	1	0	0
Natural Gas	2	0	12	1	3
Wood	105	6	42	84	84
Industrial Fuel - Total	3	5	13	0	1
Residual Oil	3	5	7	0	0
Natural Gas	0	0	6	0	1
Comm-Institutional - Total	1	2	4	0	0
Residual Oil	1	1	2	0	0
Distillate Oil	0	1	1	0	0
Natural Gas	0	0	1	0	0
SOLID WASTE DISPOSAL - TOTAL	17	1	3	43	126
Residential - Total	16	1	2	41	122
On Site Incineration	11	0	0	31	92
Open Burning	6	0	2	11	30
Comm-Institutional	1	0	0	2	4
Open Burning	1	0	0	2	4
TRANSPORTATION - TOTAL	70	30	686	681	3702
Land Vehicles					
Gasoline - Total	57	16	562	643	3557
Light Vehicles	51	14	489	529	2598
Heavy Vehicles	5	2	58	72	479
Off Highway	1	1	15	42	480
Diesel - Total	10	13	120	16	39
Heavy Vehicles	4	4	45	4	15
Off Highway	4	4	46	5	13
Rail	2	5	30	8	10
Aircraft - Total	4	1	4	17	100
Civil	4	1	4	17	100
Vessels - Total	0	0	0	2	6
Gasoline	0	0	0	2	6
Gas Handling Evap. Loss	0	0	0	2	0

COUNTY: TRINITY

SOURCE:	TSP	SO _x	NO _x	HC	CO
MISCELLANEOUS - TOTAL					
Forest Fires	360	0	85	508	2965
Slash Burning	2582	0	304	3037	9112
Solvent Evaporation Loss	0	0	0	295	0
GRAND TOTAL FOR TRINITY COUNTY	3141	47	1150	4650	15993

QC 882 .R433 1980 v.2

Baseline meteorology and air
quality in the Redding Dis