THE 1999 CALIFORNIA ALMANAC OF EMISSIONS AND AIR QUALITY

This almanac was prepared by the staff of the

Planning and Technical Support Division
California Air Resources Board

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This document has been reviewed and approved by the staff of the
California Air Resources Board. Approval does not signify that the contents necessarily
reflect the views and policies of the Air Resources Board.

Preface

This almanac was prepared by the staff of the Air Resources Board to aid air quality professionals in evaluating air quality in California. The Air Resources Board, as part of the California Environmental Protection Agency, is the State board responsible for achieving and maintaining healthful air quality in California. This responsibility is shared with local air districts and the United States Environmental Protection Agency.

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This is the first edition of this almanac. It will be updated annually as additional air quality and emission inventory data become available. If you find errors or have suggestions for improvements, please let us know. For general issues or issues related to air quality data, contact Marcella Nystrom at (916) 323-8543 or mnystrom@arb.ca.gov. For issues related to emission inventory information, contact Andy Alexis at (916) 323-1085 or aalexis@arb.ca.gov.

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Chapter 1

Introduction

Organization

This almanac contains information about current and historical emissions and air quality in California. It provides a reference for anyone interested in air quality. When using this information, please remember that the emission and air quality values represent a snapshot of the data at a particular point in time. This edition of the almanac is a May 1998 snapshot of the 1995 emission inventory and the 1997 air quality databases. Historical emission and air quality data can change over time. For example, emission data may be revised to reflect changes or refinements in estimation methods, and air quality data may be changed because of corrections or additions made since the time the report was printed.

The Air Resources Board's (ARB) most current emission and air quality data are available on the World Wide Web. On the web, the data can be viewed directly from the ARB's emission inventory and air quality databases. The emission inventory data can be found at *www.arb.ca.gov/emisinv/emsmain/emsmain.htm.* The emission database contains data for more than 11,000 individual facilities, such as power plants and refineries. It also includes approximately 250 area source categories, such as consumer products and architectural coatings, and it provides data for on-road and off-road vehicles, including cars, trucks, trains, ships, aircraft, and farm equipment. In addition, data for natural emissions, except biogenics, are available.

Historical air quality data can be accessed on the web at *www.arb.ca.gov/aqd/aqd.htm.* From this point, several options are available. The most recent air quality data can be accessed directly from the ARB's air quality database using the "Interactive Data" option. Using this option, the user may select the desired information, knowing that it reflects what is currently in the database. Summaries of annual air quality data are available for ozone, particulate matter (PM_{10}), and toxics under the "Annual Summaries" option. These data are a summarized snapshot of the reviewed data that were in the ARB air quality database at the time the page was last updated. Finally, the "Year-to-Date Ozone Report" option is a compilation of preliminary current year ozone data from selected monitoring sites in the State's five most populated

air basins. This report is updated monthly during the April through October ozone season.

In addition to the air quality data on the World Wide Web, two compact disks (CDs) containing air quality data are available from the Air Resources Board. Each CD contains multiple years of California air quality data (1980-1996 criteria pollutant data and 1990-1996 toxics data). The data on the first CD are easily displayed on a map or as a time series graph using the Voyager data visualization software, which is also included on the CD. The second CD contains the same basic data, stored in ASCII files and other forms that can be used by analysts to process their own data. The CDs are available free upon request from the ARB's Planning and Technical Support Division by calling (916) 323-8482.

The emission and air quality information provided in the remainder of this document are based on data maintained in the ARB's emission and air quality databases. The document is divided into five main chapters as described below. The chapters include descriptive information, graphics, and tabular data.

Chapter 1 contains introductory material that describes the information necessary to understand the remaining chapters. It includes information about emission estimating, air quality monitoring, State and national ambient air quality standards, and area designations for the State and national standards.

Chapter 2 contains information about current emissions and air quality at the statewide level, including lists of the State's highest emitting facilities. It is organized by pollutant for the three pollutants that still pose major air quality problems: ozone, particulate matter (specifically, PM_{10}), and carbon monoxide (CO). The chapter also contains information about how California air quality compares to that of other parts of the United States.

Chapters 3 and 4 include information about historical emission and air quality trends. Chapter 3 provides statewide information for ozone, PM_{10}, CO, lead, nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). Chapter 4 gives information for the State's five most populated air basins: the South Coast, San Francisco Bay Area, San Joaquin Valley, San Diego, and Sacramento Valley Air Basins. This chapter focuses on ozone, PM_{10}, and CO. Chapter 4

also includes information on NO_2 for the South Coast and San Diego Air Basins since these two areas had NO_2 problems in the past.

Finally, Chapter 5 includes emission data from 1985 through 1995 and air quality data from 1980 through 1997 for all counties and for all of California's 15 air basins. Five pollutants are included: ozone, PM_{10}, CO, NO_2, and SO_2. The data are provided in tabular format and are organized alphabetically by air basin (Note: similar air quality information is also provided in the Appendix, arranged by pollutant). In addition to the summary data, Chapter 5 also includes lists of the highest emitting facilities in each air basin.

Interpreting the Air Quality Statistics: A number of air quality indicators are used in this document, representing both measured values and statistically derived values. In general, the 1-hour, 8-hour, and 24-hour average concentrations, the annual averages, and the number of days above the State and national standards are measured values. In contrast, the peak indicator values were statistically derived from the measured data. The peak indicator represents the maximum concentration expected to occur once per year. This indicator is based on a statistical calculation using the ambient data collected at each monitoring site in the area. It is a calculated value, not an actual measured concentration. However, because it is based on a robust statistical calculation, it is more stable, thereby providing a trend indicator that is not highly influenced by year-to-year changes in meteorology.

In general, the air quality trends in this almanac represent data that have been summarized from a network of monitoring sites to characterize the air quality in a particular region (for example, a county or air basin). Whenever data are summarized, the resulting statistics may be influenced by a number of factors, including the number of monitoring sites in operation and the completeness of the data. To help in interpreting the air quality trends, the ARB has included information on site openings, site closures, and data completeness on the World Wide Web. The information can be found at *www.arb.ca.gov/aqd/almanac/almanac99.htm*. The information is also available from the ARB's Planning and Technical Support Division by calling (916) 323-8482.

Interpreting the Emission and Air Quality Trends: A number of trends are presented in this almanac. Emission and air quality trends for the same pollutant are usually highly correlated. In some cases, however, the two trends may differ, at least in terms of the rate of increase or decrease. The comparison of emission trends to air quality trends is complex, and a number of confounding factors can affect the resulting trends, such as the impacts of transported ozone and PM_{10} from one area to another. An area can show a stable (or flat) emission trend because local emission growth offsets the reductions achieved through technology, but this area may show an improvement in air quality because ambient concentrations reflect the impact of transport from a region that has improved. Other factors that can affect air quality are meteorology and changes in monitoring sites (both site closures and the establishment of new sites). In addition, the emission trends and some air quality trends are based on estimates. These estimates use the best available methods, however, they embody some degree of uncertainty. All of these factors should be kept in mind when using and interpreting the trends.

The air quality trends in this almanac are for the period 1980 to 1997 for all pollutants except PM_{10} which is shown from 1988 to 1997. The emission estimates are presented for the years 1985, 1990, and 1995, the period for which we have the greatest confidence in the estimates. Generally, air quality trends are based on data which have been consistently measured over the period presented. Air quality data are more reliable than emission estimates, which have a greater potential for inaccuracies. As a result, care should be taken in the use of these data either absolutely or in trend analyses.

California Facts and Figures

California is truly a "Land of Contrasts." The State offers a variety of physical features, including mountains, valleys, oceans, and deserts. In terms of size, California ranks third in the United States, after Alaska and Texas. California covers a total area of about 164,000 square miles and is larger than many nations in the world today, including Great Britain, Japan, Italy, and Norway. Of California's total area, about 156,000 square miles are land and almost 8,000 square miles are water. The Pacific Ocean is the western boundary of California, forming a coastline more than 1,200 miles long. This is nearly equal to the combined Atlantic coastlines of Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, and New Jersey.

California is blessed with a wide range of scenery and climates. The southern coastal areas enjoy a Mediterranean climate with the oak-studded hills and sunny beaches for which the State is famous. The northern coast is covered by fog-shrouded redwood forests. Inland lies the vast Central Valley with its millions of acres of cropland. The Sierra Nevada in the eastern half of California runs nearly two-thirds the length of the State. The Sierra includes the highest mountain in the continental United States, Mount Whitney, as well as the southernmost glacier in North America. Most of the southeastern portion of the State is desert, with sun-baked Death Valley, the lowest point in North America, lying only 60 miles from Mount Whitney. Further south are the scenic mountain ranges of the Mojave Desert. To a large degree, California's pleasant climate and abundance of relatively level land are the major features that have drawn people to the State, and with these people have come the challenges of controlling emissions to improve air quality.

Sources of Emissions in California

California is a diverse State with many sources of air pollution. To estimate the sources and quantities of pollution, the Air Resources Board, in cooperation with local air pollution control districts and industry, maintains an emission inventory of California emission sources. Sources are subdivided into four major emission categories: stationary sources, area-wide sources, mobile sources, and natural sources. The tables in Chapter 2, sections B and C provide some examples of the types of emission sources that are included in each of these categories.

Stationary source emissions are based on estimates made by facility operators and local air pollution control districts. Emissions from specific facilities can be identified by name and location. Area-wide emissions are estimated by ARB and district staffs. Emissions from area-wide sources may be either from small individual sources, such as residential fireplaces, or from widely distributed sources that cannot be tied to a single location, such as dust from unpaved roads. Mobile source emissions are estimated by ARB staff with assistance from districts and other government agencies. Mobile sources include on-road cars, trucks, and buses and other sources such as boats, off-road recreational vehicles, aircraft, and trains. Natural sources are also estimated by the ARB staff and the air districts. These sources include geogenic hydrocarbons, natural wind-blown dust, and wildfires. Biogenic hydrocarbon emission estimates are not included in this document.

For the inventoried emission sources, the ARB compiles emission estimates for total organic gases (TOG), reactive organic gases (ROG), carbon monoxide (CO), oxides of nitrogen (NO_x), oxides of sulfur (SO_x), particulate matter (PM), and particulate matter with an aerodynamic diameter of 10 microns or smaller (PM_{10}). This almanac focuses on emission and air quality information for the most significant pollutants in California: the ozone precursors NO_x and ROG, PM_{10}, and CO. These pollutants are the most significant because many areas of the State do not attain the State or national ambient air quality standards for these pollutants.

Air Quality Monitoring

Meteorology acts on the emissions released into the atmosphere to produce pollutant concentrations. These airborne pollutant concentrations are measured throughout California at air quality monitoring sites. The Air Resources Board operates a statewide network of monitors. Data from this network are supplemented with data collected by air districts, other public agencies, and private contractors. In total, there are more than 250 air quality monitoring sites in California. In addition, a few monitoring sites are located in Baja California, Mexico. These sites were established in cooperation with the United States Environmental Protection Agency (U.S. EPA) and the Mexican government to monitor the cross-border transport of pollutants and precursors. Each year, more than ten million air quality measurements from all of these sites are collected and stored in a comprehensive air quality database maintained by the ARB. To ensure the integrity of the data, the ARB routinely conducts audits and reviews of the monitoring instruments and the resulting data.

Figure 1-1

California Air Basins

California contains a wide variety of climates, physical features, and emission sources. This variety makes the task of improving air quality complex because what works in one area may not work in another area. To better manage common air quality problems, California is divided into 15 air basins, as shown in Figure 1-2 and Table 1-1. The Air Resources Board established the initial air basin boundaries during 1968.

An air basin generally has similar meteorological and geographic conditions throughout. To the extent possible, the basin boundaries follow along political boundary lines and are defined to include both the source area and the receptor area. However, air often moves freely from basin to basin. As a result, ozone and PM_{10} can be transported across air basin boundaries, and interbasin transport is a reality that must be dealt with in air quality programs. Over time, the air basin boundaries have been changed several times, to provide for better air quality management.

Figure 1-2

List of Counties in Each Air Basin

Great Basin Valleys Air Basin

- Alpine County
- Inyo County
- Mono County

Lake County Air Basin

- Lake County

Lake Tahoe Air Basin

- El Dorado County (portion)
- Placer County (portion)

Mojave Desert Air Basin

- Kern County (portion)
- Los Angeles County (portion)
- Riverside County (portion)
- San Bernardino County (portion)

Mountain Counties Air Basin

- Amador County
- Calaveras County
- El Dorado County (portion)
- Mariposa County
- Nevada County
- Placer County (portion)
- Plumas County
- Sierra County
- Tuolumne County

Table 1-1

List of Counties in Each Air Basin

North Central Coast Air Basin

- Monterey County
- San Benito County
- Santa Cruz County

North Coast Air Basin

- Del Norte County
- Humboldt County
- Mendocino County
- Sonoma County (portion)
- Trinity County

Northeast Plateau Air Basin

- Lassen County
- Modoc County
- Siskiyou County

Sacramento Valley Air Basin

- Butte County
- Colusa County
- Glenn County
- Placer County (portion)
- Sacramento County
- Shasta County
- Solano County (portion)
- Sutter County
- Tehama County
- Yolo County
- Yuba County

Table 1-1 (continued)

List of Counties in Each Air Basin

Salton Sea Air Basin

- Imperial County
- Riverside County (portion)

San Diego Air Basin

- San Diego County

San Francisco Bay Area Air Basin

- Alameda County
- Contra Costa County
- Marin County
- Napa County
- San Francisco County
- San Mateo County
- Santa Clara County
- Solano County (portion)
- Sonoma County (portion)

Table 1-1 (continued)

San Joaquin Valley Air Basin

- Fresno County
- Kern County (portion)
- Kings County
- Madera County
- Merced County
- San Joaquin County
- Stanislaus County
- Tulare County

South Central Coast Air Basin

- San Luis Obispo County
- Santa Barbara County
- Ventura County

List of Counties in Each Air Basin

South Coast Air Basin

- Los Angeles County (portion)
- Orange County
- Riverside County (portion)
- San Bernardino County (portion)

Table 1-1 (continued)

California and National Ambient Air Quality Standards

Very simply, an ambient air quality standard is the definition of "clean air." More specifically, a standard establishes the concentration at which the pollutant is known to cause adverse health effects to sensitive groups within the population, such as children and the elderly. Both the California and federal governments have adopted health-based standards for the criteria pollutants, which include ozone, particulate matter (PM_{10} and $PM_{2.5}$), and carbon monoxide. For some pollutants, the California (State) and national standards are very similar. For other pollutants, the State standards are more stringent. The differences in the standards are generally explained by the different health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the State standards incorporate a margin of safety to protect sensitive individuals (a complete list of the State and national ambient air quality standards can be found on the World Wide Web at *www.arb.ca.gov/aqs/aqs.htm*). In general, the air quality standards are expressed as a measure of the amount of pollutant per unit of air. For example, the particulate matter standards are expressed as micrograms of particulate matter per cubic meter of air ($\mu g/m^3$).

Ozone

Ozone is a colorless gas with a pungent odor. It is the chief component of urban smog. Ozone is not directly emitted as a pollutant, but is formed in the atmosphere when hydrocarbon and NO_x precursor emissions react in the presence of sunlight. Meteorology and terrain play major roles in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and cloudless skies provide for the optimum conditions. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. Therefore, ozone is a regional pollutant that often impacts a widespread area.

Ozone impacts lung function by irritating and damaging the respiratory system. In addition, ozone causes damage to vegetation, buildings, rubber, and some plastics. Recognizing the health impacts of day-long exposure, the United States Environmental Protection Agency promulgated an 8-hour ozone standard in 1997 as a successor to the 1-hour standard which was established in 1979. However, the transition to the 8-hour standard is just beginning, and the 1-hour standard is the primary focus of this almanac.

State Ozone Standard:
0.09 ppm for 1 hour,
not to be exceeded.

National Ozone Standards:
0.12 ppm for 1 hour,
not to be exceeded more than once per year *and*
0.08 ppm for 8 hours,
not to be exceeded,
based on the fourth highest concentration averaged over three years.

Table 1-2

Particulate Matter (PM_{10} and $PM_{2.5}$)

PM_{10} refers to particles with an aerodynamic diameter of 10 microns or smaller. For comparison, the diameter of a human hair is about 50 to 100 microns. PM_{10} is a mixture of substances that includes elements such as carbon, lead, and nickel; compounds such as nitrates, organic compounds, and sulfates; and complex mixtures such as diesel exhaust and soil. These substances occur in the form of solid particles or as liquid droplets. Some particles are emitted directly into the atmosphere. Other particles, referred to as secondary particles, result from gases that are transformed into particles through physical and chemical processes in the atmosphere.

PM_{10} includes a subgroup of finer particles called $PM_{2.5}$. The fine particles pose an increased health risk because they can deposit deep in the lung and contain substances that are particularly harmful to human health. The United States Environmental Protection Agency promulgated national $PM_{2.5}$ standards in 1997. However, the transition to the $PM_{2.5}$ standards is just beginning and, therefore, the PM_{10} standards are the primary focus of this almanac.

State PM_{10} Standards:
50 µg/m^3 for 24 hours *and*
30 µg/m^3 annual geometric mean, neither to be exceeded.

National PM_{10} Standards:
150 µg/m^3 for 24 hours, not to be exceeded, based on the 99th percentile concentration averaged over 3 years *and*
50 µg/m^3 annual arithmetic mean averaged over 3 years.

National $PM_{2.5}$ Standards:
65 µg/m^3 for 24 hours, not to be exceeded, based on the 98th percentile concentration averaged over three years *and*
15 µg/m^3 annual arithmetic mean averaged over 3 years.

Table 1-3

Carbon Monoxide

Carbon monoxide is a colorless and odorless gas that is directly emitted as a product of combustion. The highest concentrations are generally associated with cold stagnant weather conditions that occur during winter. In contrast to ozone, which tends to be a regional pollutant, CO problems tend to be localized.

Carbon monoxide is highly toxic because it is readily absorbed through the lungs into the blood, where it binds with hemoglobin and reduces the ability of the blood to carry oxygen. As a result, insufficient oxygen reaches the heart, brain, and other tissues. The harm caused by CO can be critical for people with heart disease (angina), chronic lung disease, or anemia, as well as for unborn children. Even healthy people exposed to high levels of CO can experience headaches, fatigue, slow reflexes, and dizziness. Health damage caused by CO is of greater concern at high elevations where the air is less dense, aggravating the consequences of reduced oxygen supply. As a result, California's CO standard is more stringent for the Lake Tahoe Air Basin.

State CO Standards:

20 ppm for 1 hour *and*
9.0 ppm for 8 hours,
neither to be exceeded.

6 ppm for 8 hours
(Lake Tahoe Air Basin only),
not to be equaled or exceeded.

National CO Standards:

35 ppm for 1 hour *and*
9 ppm for 8 hours,
neither to be exceeded more
than once per year.

Table 1-4

California and National Area Designations

Both the California and federal governments use monitoring data to designate areas according to their attainment status for most of the pollutants with ambient air quality standards. The purpose of the designations is to identify those areas with air quality problems and thereby initiate planning efforts to make the air more healthful. There are three basic designation categories: nonattainment, attainment, and unclassified. In addition, the California (State) designations include a subcategory of the nonattainment designation, called nonattainment-transitional. This transitional designation is given to nonattainment areas that are making progress and nearing attainment.

A nonattainment designation indicates that the air quality violates an air quality standard. Although a number of areas may be designated as nonattainment for a particular pollutant, the severity of the problem can vary greatly. For example, in two ozone nonattainment areas, the first area has a measured maximum concentration of 0.13 parts per million (ppm), while the second area has a measured maximum concentration of 0.23 ppm. It is obvious that the second area has a more severe problem, and will need a more stringent emissions control strategy. To identify the severity of the problem and the extent of planning required, nonattainment areas are assigned a classification that is commensurate with the severity of the air quality problem (e.g., severe, serious, moderate). In contrast to nonattainment, an attainment designation indicates that the air quality does not violate the established standard. In most cases, areas designated as attainment must develop and implement maintenance plans designed to assure continued compliance with the standard. Finally, an unclassified designation indicates that there is insufficient data for determining attainment or nonattainment (more detailed information on the area designation categories can be found on the web at *www.arb.ca.gov/desig/desig.htm*).

Ozone

Several areas in the northern and central portions of California are designated as attainment for the State ozone standard. However, most of the rest of the State, including all of the major urban areas, have ozone concentrations that violate the State standard, and therefore, are designated as nonattainment. During 1997 and 1998, several nonattainment areas were redesignated as nonattainment-transitional. The air quality improvement in these areas is partly attributable to the implementation of Cleaner Burning Gasoline. Although few areas have made sufficient progress to be redesignated as attainment for the State ozone standard, ozone precursor emissions continue to decline throughout California. As a result, more areas should eventually qualify for attainment status.

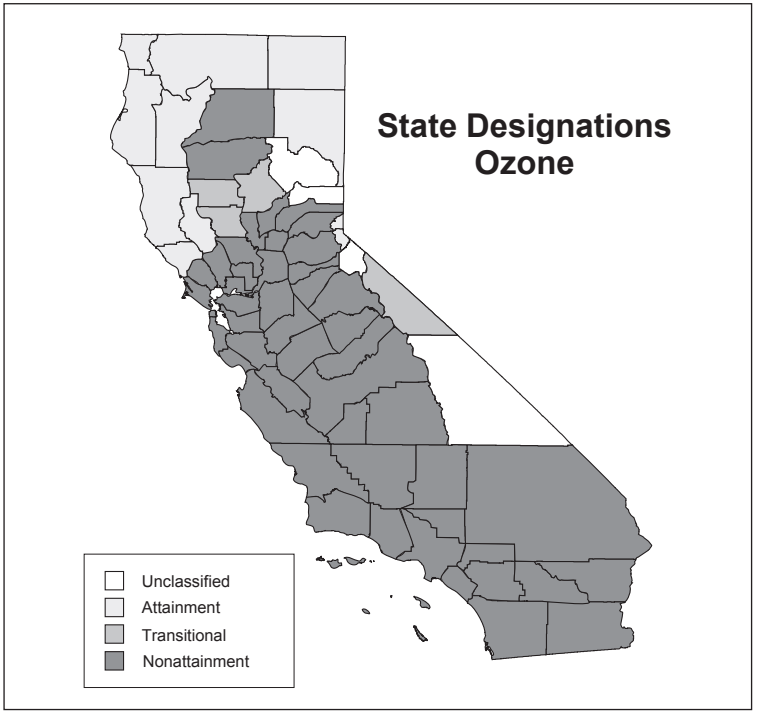

Figure 1-3

Similar to the State designations, most of the major urban areas in California are designated as nonattainment for the national 1-hour ozone standard. Two areas, Amador County and Calaveras County, are designated as unclassified/attainment. Ozone concentrations in the remaining areas do not violate the national 1-hour standard. As a result, in June 1998, the United States Environmental Protection Agency categorized these regions as areas where the 1-hour national standard no longer applies. Although the ambient ozone concentrations in these areas no longer violate the 1-hour standard, they may violate the new national 8-hour standard. Therefore, as the U.S. EPA transitions to the 8-hour ozone standard, the agency will redesignate these areas as appropriate.

Figure 1-4

PM_{10}

The majority of California is designated as nonattainment for the State PM_{10} standards. Three counties in the northern half of the State remain unclassified, and only one area, Lake County Air Basin, is designated as attainment.

PM_{10} remains a widespread problem, and its causes are very diverse. Because of the variety of sources and the size and chemical make-up of the particles, the PM_{10} problem can vary considerably from one area to the next. In addition, high PM_{10} concentrations are seasonal, and the season varies from area to area. For example, in some areas, windblown dust may contribute to high PM_{10} concentrations in the summer and fall, while in other areas, high concentrations due to secondary particles may occur in the winter. As a result, two areas with similar PM_{10} concentrations may have very different PM_{10} problems, and no single statewide control strategy will be effective in dealing with these problems.

Figure 1-5

In contrast to the State PM_{10} designations, there are only two designation categories for the national PM_{10} standards: nonattainment and unclassified. Areas designated as nonattainment for the national PM_{10} standards are required to develop and implement plans designed to meet the standards. Although the U.S. EPA has not provided for an attainment designation, several areas in the State have PM_{10} air quality that does not violate the national standards.

Recognizing the health impacts of fine particles (those less than 2.5 microns in diameter), the United States Environmental Protection Agency recently promulgated a $PM_{2.5}$ standard. While the area designations and planning requirements have not yet been established for $PM_{2.5}$, the actions taken to reduce PM_{10} should also help in reducing $PM_{2.5}$.

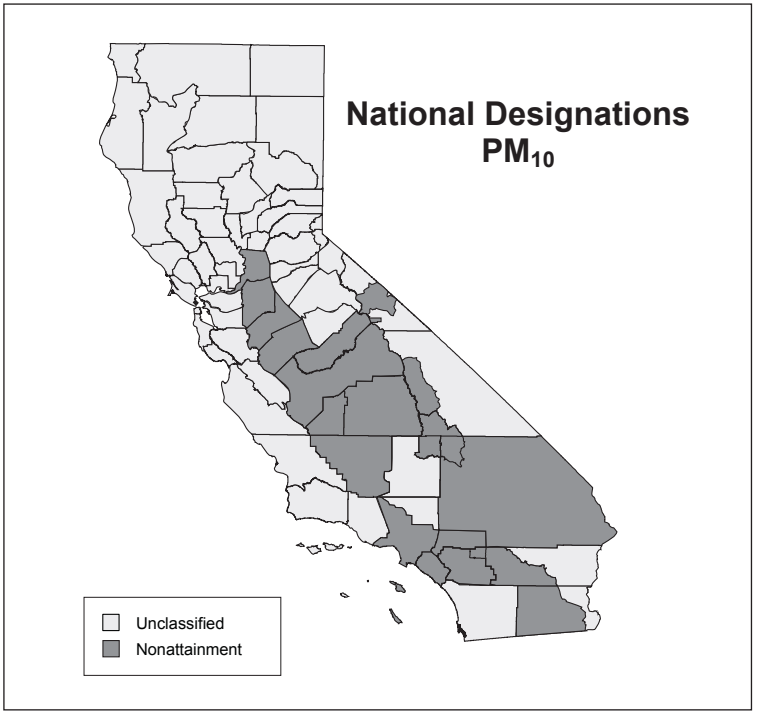

Figure 1-6

Carbon Monoxide

Currently, there are only two nonattainment areas for the State CO standards: Los Angeles County and the city of Calexico, in Imperial County. California has made tremendous progress in reducing CO concentrations in the last ten years, during which 13 areas with over 12.5 million people have been redesignated as attainment. Much of the progress in reducing ambient CO is attributable to motor vehicle controls and the introduction of cleaner fuels.

The outlook for further reducing CO concentrations in Los Angeles County is good, and continued emission reductions should assure attainment sometime in the future. The problem in Calexico is unique in that the area is probably impacted by emissions from Mexico. Additional studies are needed to determine the most effective control strategy for this area.

Figure 1-7

The U.S. EPA uses only two designation categories for CO: unclassified/attainment and nonattainment. All areas of California except the South Coast Air Basin are currently designated as unclassified/attainment for the national CO standards. Furthermore, the CO problem in the South Coast area is limited to only a small portion of Los Angeles County. Most CO is emitted by cars and trucks, and the Air Resources Board's motor vehicle controls should be sufficient to overcome the problem in the coming years. In addition to Los Angeles County, the city of Calexico, in Imperial County, also has carbon monoxide concentrations that violate the national standards. However, the U.S. EPA has not acted to change this area's designation from unclassified/attainment to nonattainment.

Figure 1-8

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Chapter 2

Current Emissions and Air Quality

Introduction

This chapter provides information on current emissions and air quality, on a statewide level. The following introductory information gives a national perspective on how California's air quality compares with that in other areas of the nation. Section B includes a summary table of the 1995 Statewide Emission Inventory. The table shows emissions data by four major source categories: stationary sources, area-wide sources, mobile sources, and natural sources. Section C provides more detailed information for the four major source categories in a table of the 1995 Statewide Emission Inventory by Summary Category. The remaining sections of this Chapter provide information on emissions (including the high emitting facilities) and air quality on a statewide basis. This information is organized by pollutant, for ozone, PM_{10}, and CO.

State and local agencies have implemented many control measures during the last three decades to improve air quality. As a result, there has been a steady decline in both emissions and pollutant concentrations. However, three pollutants — ozone, particulate matter, and carbon monoxide — still pose air quality problems. While existing control programs are expected to reduce CO concentrations to levels below the standards within a few years, it will be a significant challenge to reduce emissions sufficiently to attain the ozone and PM_{10} standards in all areas.

Figure 2-1 shows the maximum measured ozone concentrations for the top ten urban areas in the nation. Ozone concentrations in all these areas exceed the national 1-hour standard of 0.12 ppm. The graph includes only two California areas. Ten years ago, California areas would have been more apparent in this comparison, holding the top three spots and four of the top ten spots. However, as ozone concentrations in the State decline, California's air quality continues to improve relative to other areas of the nation.

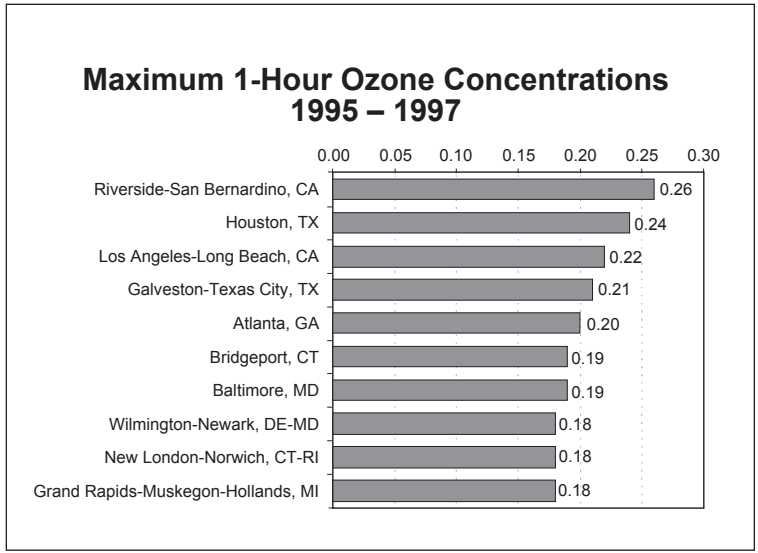

Figure 2-1

Attainment of the standards for particulate matter that is 10 microns and smaller (PM_{10}) is a significant problem. The PM_{10} problem is most prevalent in the western United States. Six western areas are classified as serious PM_{10} nonattainment areas. Four of these six areas — the Coachella Valley, the Owens Valley, the San Joaquin Valley, and the South Coast Air Basin — are located in California. Because of the complex nature of the particulate matter problem, it will be many years before the standards are attained.

Carbon monoxide poses much less of a problem. Figure 2-2 shows the top ten areas in the nation, based on the average number of days when the CO concentration was higher than the national 8-hour standard. The Los Angeles-Long Beach and Calexico areas rank first and second, and the average number of national standard exceedance days in these areas is at least five times higher than in any other area. However, as a result of the State's stringent motor vehicle emission standards and clean fuels programs, nine other California areas were redesignated as attainment for the national CO standards in 1998.

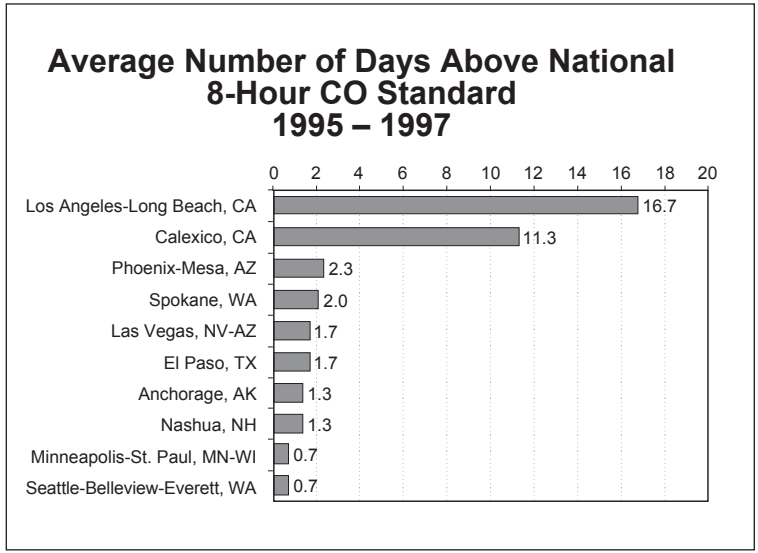

Figure 2-2

1995 Statewide Emission Inventory Summary

Division Major Category	Emissions (tons/day, annual average) TOG	ROG	CO	NO_x	SO_x	PM_{10}
Stationary Sources	2700	740	350	630	140	210
Fuel Combustion	150	35	290	530	50	34
Waste Disposal	1400	22	0	1	0	8
Cleaning and Surface Coatings	510	400	0	0		0
Petroleum Production and Marketing	510	220	7	21	60	3
Industrial Processes	85	64	56	80	27	170
Area-wide Sources	2000	780	2500	95	5	1900
Solvent Evaporation	520	480				
Miscellaneous Processes	1500	300	2500	95	5	1900
Mobile Sources	2200	2000	18000	2800	130	120
On-Road Motor Vehicles	1900	1700	15000	2100	56	67
Other Mobile Sources	340	320	2800	700	78	50
Natural Sources*	110	48	550	8		78
Total California	**7100**	**3600**	**22000**	**3500**	**270**	**2300**

Table 2-1

* Does not include biogenic sources.

1995 Statewide Emission Inventory by Summary Category

Division Major Category Summary Category	Emissions (tons/day, annual average)					
	TOG	ROG	CO	NO_X	SO_X	PM_{10}
Stationary Sources (division total)	**2686**	**735**	**348**	**633**	**138**	**211**
Fuel Combustion (major category total)	**154**	**35**	**285**	**531**	**50**	**34**
– Electric Utilities	28	6	36	69	8	5
– Cogeneration	9	2	36	36	2	3
– Oil and Gas Production (Combustion)	37	6	28	71	3	3
– Petroleum Refining (Combustion)	5	2	12	54	11	6
– Manufacturing and Industrial	44	8	79	167	16	9
– Food and Agricultural Processing	5	4	51	44	4	4
– Service and Commercial	25	7	32	84	7	5
– Other (Fuel Combustion)	2	1	12	6	0	1
Waste Disposal (major category total)	**1427**	**22**	**0**	**1**	**0**	**8**
– Landfills	1422	20	0	1	0	8
– Other (Waste Disposal)	5	2	0	0	0	0
Cleaning and Surface Coatings (major category total)	**509**	**396**	**0**	**0**	**0**	**0**
– Laundering	20	20	0	0	0	0
– Degreasing	191	127	0	0	0	0
– Coatings and Related Process Solvents (summary category total)	228	188	0	0	0	0
- Auto, Marine & Aircraft	*23*	*23*	*0*	*0*	*0*	*0*
- Paper & Fabric	*5*	*5*	*0*	*0*	*0*	*0*
- Metal, Wood & Plastic	*65*	*61*	*0*	*0*	*0*	*0*
- Other	*134*	*99*	*0*	*0*	*0*	*0*
– Printing	18	18	0	0	0	0
– Other (Cleaning and Surface Coatings)	52	43	0	0	0	0

Table 2-2

1995 Statewide Emission Inventory by Summary Category, continued

Division Major Category Summary Category	Emissions (tons/day, annual average)					
	TOG	ROG	CO	NO_x	SO_x	PM_{10}
Stationary Sources (continued)						
Petroleum Production and Marketing (major category total)	**512**	**218**	**7**	**21**	**60**	**3**
– Oil and Gas Production (except combustion)	213	99	1	3	0	0
– Petroleum Refining (except combustion)	49	37	6	19	60	3
– Petroleum Marketing (summary category total)	243	76	0	0	0	0
- Fuel Distribution Losses	*177*	*12*	*0*	*0*	*0*	*0*
- Fuel Storage Losses	*4*	*4*	*0*	*0*	*0*	*0*
- Vehicle Refueling	*48*	*48*	*0*	*0*	*0*	*0*
- Other	*14*	*12*	*0*	*0*	*0*	*0*
– Other (Petroleum Production & Marketing)	7	6	0	0	0	0
Industrial Processes (major category total)	**85**	**64**	**56**	**80**	**27**	**165**
– Chemical	30	23	0	3	7	5
– Food and Agriculture (except combustion)	23	19	2	10	1	15
– Mineral Processes	5	3	18	45	11	37
– Metal Processes	1	1	0	0	0	2
– Wood and Paper	3	2	1	3	1	16
– Glass and Related Products	0	0	0	16	6	2
– Electronics	0	0	0	0	0	0
– Other (Industrial Processes)	24	16	33	4	1	89

Table 2-2 (continued)

1995 Statewide Emission Inventory by Summary Category, continued

Division Major Category Summary Category	Emissions (tons/day, annual average)					
	TOG	ROG	CO	NO_x	SO_x	PM_{10}
Area-wide Sources (division total)	**2042**	**778**	**2529**	**95**	**5**	**1881**
Solvent Evaporation (major category total)	**518**	**481**	**0**	**0**	**0**	**0**
– Consumer Products	252	228	0	0	0	0
– Architectural Coatings and Related Process Solvents (summary category total)	136	126	0	0	0	0
- Architectural Coatings	*117*	*113*	*0*	*0*	*0*	*0*
- Thinning and Cleanup Solvents	*19*	*13*	*0*	*0*	*0*	*0*
– Pesticides/Fertilizers (summary category total)	102	100	0	0	0	0
- Farm Use	*84*	*84*	*0*	*0*	*0*	*0*
- Home Use	*14*	*13*	*0*	*0*	*0*	*0*
- Commercial Use	*5*	*4*	*0*	*0*	*0*	*0*
– Asphalt Paving	26	26	0	0	0	0
– Refrigerants	0	0	0	0	0	0
– Other (Solvent Evaporation)	2	1	0	0	0	0
Miscellaneous Processes (major category total)	**1524**	**297**	**2529**	**95**	**5**	**1881**
– Residential Fuel Combustion (summary category total)	137	57	918	83	5	129
- Wood Combustion	*131*	*54*	*898*	*11*	*2*	*125*
- Cooking and Space Heating	*5*	*2*	*18*	*64*	*3*	*4*
- Other	*1*	*0*	*2*	*8*	*0*	*0*
– Farming Operations (summary category total)	1180	94	0	0	0	218
- Tilling, Harvesting & Growing	*0*	*0*	*0*	*0*	*0*	*174*
- Livestock	*1180*	*94*	*0*	*0*	*0*	*44*
– Construction and Demolition (summary category total)	0	0	0	0	0	184
- Building	*0*	*0*	*0*	*0*	*0*	*92*
- Road Construction Dust	*0*	*0*	*0*	*0*	*0*	*92*

Table 2-2 (continued)

1995 Statewide Emission Inventory by Summary Category, continued

Division Major Category Summary Category	Emissions (tons/day, annual average)					
	TOG	ROG	CO	NO_x	SO_x	PM_{10}
Area-wide Sources (continued)						
Miscellaneous Processes (continued)						
– Paved Road Dust	0	0	0	0	0	399
– Unpaved Road Dust	0	0	0	0	0	580
– Fugitive Windblown Dust (summary category total)	0	0	0	0	0	244
- Farm Lands	*0*	*0*	*0*	*0*	*0*	*186*
- Pasture Lands	*0*	*0*	*0*	*0*	*0*	*14*
- Unpaved Roads	*0*	*0*	*0*	*0*	*0*	*43*
– Fires (Structural and Automotive)	2	1	18	0	0	2
– Waste Burning and Disposal (summary category total)	116	62	1043	9	1	95
- Agricultural Burning	*53*	*29*	*334*	*4*	*0*	*37*
- Non-Agricultural	*63*	*32*	*707*	*3*	*0*	*56*
- Other	*1*	*1*	*2*	*1*	*0*	*1*
– Utility Equipment (summary category total)	78	75	549	2	0	2
- Lawn & Garden - Residential	*17*	*16*	*143*	*1*	*0*	*0*
- Lawn & Garden - Commercial	*61*	*59*	*406*	*2*	*0*	*1*
– Other (Miscellaneous Processes) (summary category total)	11	8	1	0	0	30
- Cooking	*10*	*7*	*0*	*0*	*0*	*28*
- Other	*1*	*1*	*1*	*0*	*0*	*2*

Table 2-2 (continued)

1995 Statewide Emission Inventory by Summary Category, continued

Division Major Category Summary Category	Emissions (tons/day, annual average)					
	TOG	ROG	CO	NO_x	SO_x	PM_{10}
Mobile Sources (division category total)	**2198**	**1973**	**18256**	**2776**	**133**	**116**
On-Road Motor Vehicles (major category total)	1858	1652	15461	2081	56	67
– Light Duty Passenger (summary category total)	1129	1006	9415	812	19	15
- Non-Evaporative	*803*	*680*	*9404*	*804*	*18*	*13*
- Evaporative	*324*	*324*	*0*	*0*	*0*	*0*
- Diesel	*2*	*2*	*11*	*7*	*1*	*2*
– Light Duty Trucks (summary category total)	547	480	4719	545	9	7
- Non-Evaporative	*421*	*354*	*4714*	*542*	*9*	*6*
- Evaporative	*125*	*125*	*0*	*0*	*0*	*0*
- Diesel	*1*	*1*	*5*	*4*	*0*	*1*
– Medium Duty Trucks (summary category total)	70	60	425	80	1	1
- Non-Evaporative	*60*	*50*	*425*	*80*	*1*	*1*
- Evaporative	*11*	*11*	*0*	*0*	*0*	*0*
– Light Heavy Duty Gas Trucks (summary category total)	26	23	363	109	3	3
- Non-Evaporative	*19*	*16*	*363*	*109*	*3*	*3*
- Evaporative	*7*	*7*	*0*	*0*	*0*	*0*
– Medium Heavy Duty Gas Trucks (summary category total)	12	11	199	34	1	1
- Non-Evaporative	*9*	*8*	*199*	*34*	*1*	*1*
- Evaporative	*4*	*4*	*0*	*0*	*0*	*0*
– Light Heavy Duty Diesel Trucks	6	6	32	43	4	4
– Medium Heavy Duty Diesel Trucks	14	14	68	97	6	9
– Heavy Heavy Duty Diesel Trucks	42	40	192	338	13	28
– Motorcycles	11	10	48	5	0	0
– Heavy Duty Diesel Urban Buses	2	2	2	18	1	0

Table 2-2 (continued)

1995 Statewide Emission Inventory by Summary Category, continued

Division Major Category Summary Category	Emissions (tons/day, annual average)					
	TOG	ROG	CO	NO_x	SO_x	PM_{10}
Mobile Sources (continued)						
Other Mobile Sources (major category total)	**340**	**321**	**2795**	**695**	**78**	**50**
– Aircraft	69	60	321	48	4	13
– Trains	8	7	23	149	7	3
– Ships and Commercial Boats	9	9	14	75	52	9
– Recreational Boats*	99	95	509	10	0	4
– Off-road Recreational Vehicles (summary category total)*	67	65	259	5	0	0
- Snowmobiles	*42*	*40*	*114*	*2*	*0*	*0*
- Motorcycles	*12*	*12*	*61*	*1*	*0*	*0*
- All-Terrain Vehicles (ATVs)	*10*	*10*	*53*	*0*	*0*	*0*
- Four-Wheel Drive Vehicles	*3*	*3*	*30*	*2*	*0*	*0*
– Commercial/Industrial Mobile Equipment*	74	71	1437	316	9	15
– Farm Equipment*	16	15	232	93	5	5
Natural (Non-Anthropogenic) Sources (division total)	**106**	**48**	**550**	**8**	**0**	**78**
Natural Sources (major category total)**	**106**	**48**	**550**	**8**	**0**	**78**
– Geogenic Sources	52	18	0	0	0	0
– Wildfires	54	30	550	8	0	78
Total Statewide - All Sources	**7032**	**3534**	**21684**	**3511**	**277**	**2286**

Table 2-2 (continued)

* Updated emission estimates are being used to support an upcoming Air Resources Board regulatory hearing. When the new emission estimates are approved by the Board they will be included in subsequent editions of the almanac.

** Does not include biogenics.

Ozone

1995 Statewide Emissions Inventory – Ozone Precursors by Category

NO_x Sources – Statewide

NO_x is a group of gaseous compounds of nitrogen and oxygen, many of which contribute to the formation of ozone, PM_{10} and $PM_{2.5}$. Most NO_x emissions are produced by the combustion of fuels. Industrial sources report NO_x emissions to local air districts and to the Air Resources Board. Other sources of NO_x emissions are estimated by the local air districts and the ARB. Mobile sources (including on-road and other) make up over 75 percent of the total statewide NO_x emissions. The category of other mobile sources includes emissions from aircraft, trains, ships, recreational boats, farm equipment, off-road recreational vehicles, and other equipment. Stationary sources of NO_x include both internal and external combustion processes in industries such as manufacturing, food processing, electric utilities, and petroleum refining. Area-wide sources, which include residential fuel combustion, waste burning and fires, contribute only a small portion of the total NO_x emissions.

NO_x Emissions (annual average)		
Emissions Source	tons/day	Percent
Stationary Sources	633	18%
Area-wide Sources	95	3%
On-Road Mobile	2081	59%
Gasoline Vehicles	1574	45%
Diesel Vehicles	507	14%
Other Mobile Sources	695	20%
Total Statewide	**3504**	**100%**

Table 2-3

ROG Sources – Statewide

Reactive organic gases (ROG) are volatile organic compounds that are photochemically reactive and contribute to the formation of ozone as well as PM_{10} and $PM_{2.5}$. These emissions result primarily from incomplete fuel combustion and the evaporation of chemical solvents and fuels. On-road mobile sources are the largest contributors to statewide ROG emissions. This category includes emissions from cars, trucks, and motorcycles powered by gasoline and diesel fuels. Stationary sources of ROG emissions include processes that use solvents (such as dry cleaning, degreasing, and coating operations) and petroleum-related processes (such as petroleum refining and oil and gas extraction). Area-wide ROG sources include consumer products, pesticides, coatings, and other evaporative emissions.

ROG Emissions (annual average)		
Emissions Source	tons/day	Percent
Stationary Sources	735	21%
Area-wide Sources	779	22%
On-Road Mobile	1652	47%
Gasoline Vehicles	1588	46%
Diesel Vehicles	64	2%
Other Mobile Sources	321	9%
Total Statewide	**3487**	**100%**

Table 2-4

Largest Stationary Sources Statewide

Largest Stationary Sources of NO_x Statewide

Air Basin	Facility Name	City	NO_x (tons/year)
San Francisco Bay Area	Shell Martinez Refining Company	Martinez	4447
Mojave Desert	Southdown (Cement)	Apple Valley	4106
North Central Coast	P G & E	Moss Landing	4037
San Francisco Bay Area	Chevron Inc.	Richmond	3612
Mojave Desert	Riverside Cement Company	Oro Grande	3361
San Francisco Bay Area	Tosco Corp. Avon Refinery	Martinez	3161
San Francisco Bay Area	Exxon Corporation	Benecia	3078
South Coast	Chevron USA Inc.	El Segundo	2587
South Coast	California Portland Cement Co.	Colton	2289
Mojave Desert	California Portland Cement Co.	Mojave	2246

Table 2-5

1. Facility totals are for calendar year 1995. Some facilities may have reduced or increased emissions since 1995. These changes will be reflected in subsequent almanacs.

2. The lists of facilities do not include military bases, landfills, or airports.

Largest Stationary Sources of ROG Statewide

Air Basin	Facility Name	City	ROG (tons/year)
San Francisco Bay Area	Tosco Corp. Avon Refinery	Martinez	3017
San Francisco Bay Area	Chevron Inc.	Richmond	2894
San Francisco Bay Area	Shell Martinez Refining Company	Martinez	1472
San Diego	Kelco-Div Merck & Co. (Pharmaceuticals)	San Diego	1225
South Coast	Arco Products Co.	Carson	1018
San Francisco Bay Area	New United Motor Manufacturing	Fremont	946
San Francisco Bay Area	Exxon Corporation	Benicia	812
San Joaquin Valley	Texaco Refining and Marketing	Bakersfield	786
South Coast	Chevron USA Inc	El Segundo	731
San Joaquin Valley	Naval Petroleum Reserve No. 1	Shafter	723

Table 2-6

1. Facility totals are for calendar year 1995. Some facilities may have reduced or increased emissions since 1995. These changes will be reflected in subsequent almanacs.

2. The lists of facilities do not include military bases, landfills, or airports.

Ozone – 1997 Air Quality

Air quality as it relates to ozone has improved greatly in California over the last several decades, and 1997 was one of the cleanest years on record. However, despite aggressive emission controls, peak ozone values still exceed the State standard in 11 of the 15 air basins. Peak values exceed the national 1-hour standard in nine air basins. California's highest ozone concentrations occur in the South Coast Air Basin, where the peak 1-hour value is more than two and a half times the level of the State standard.

Ozone concentrations are generally lower near the coast than they are inland, and rural areas tend to be cleaner than urban areas. This can be explained in part by the characteristics of ozone, including pollutant reactivity, transport, and deposition. Based on current ozone concentrations, substantial additional emission control measures will be needed to attain the standards throughout the State.

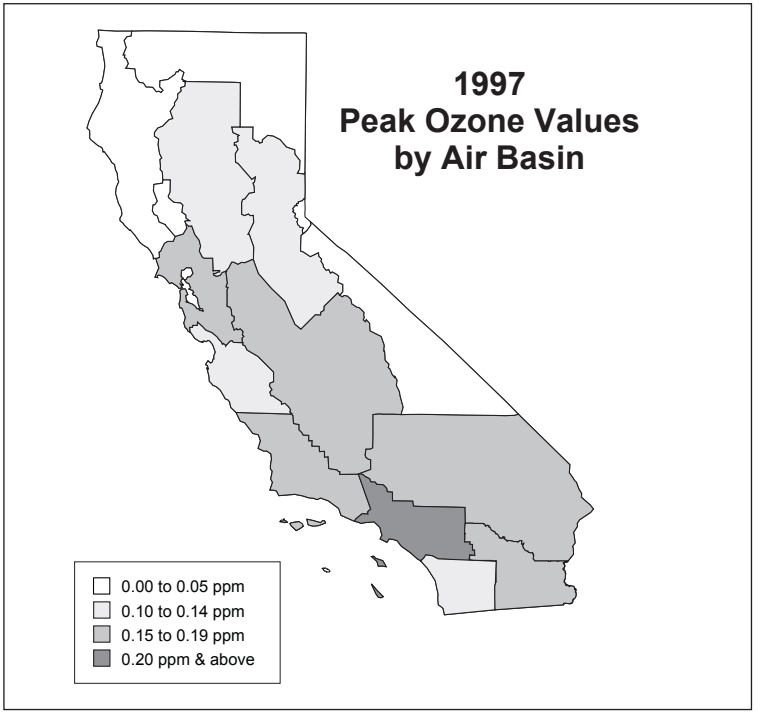

Figure 2-3

Ozone – 1997 Air Quality Tables

Maximum Peak 1-Hour Indicator by Air Basin

Air Basin	1997 Maximum Peak 1-Hour Indicator in Parts per Million	Number of Days in 1997 Above State Standard	Number of Days in 1997 Above National Standard
Great Basin Valleys Air Basin	0.10	0	0
Lake County Air Basin	0.08	0	0
Lake Tahoe Air Basin	0.08	1	0
Mojave Desert Air Basin	0.17	101	22
Mountain Counties Air Basin	0.14	29	2
North Central Coast Air Basin	0.11	1	0
North Coast Air Basin	0.09	2	0
Northeast Plateau Air Basin	0.07	0	0
Sacramento Valley Air Basin	0.14	25	3
Salton Sea Air Basin	0.16	91	13
San Diego Air Basin	0.13	43	1
San Francisco Bay Area Air Basin	0.15	8	0
San Joaquin Valley Air Basin	0.17	110	16
South Central Coast Air Basin	0.15	59	3
South Coast Air Basin	0.23	144	64

Table 2-7

Table 2-8

High Ozone Concentration Sites in Each Air Basin

Great Basin Valleys
- Death Valley National Monument

Lake County
- Lakeport – Lakeport Blvd

Lake Tahoe
- South Lake Tahoe – Sandy Way

Mountain Counties
- Cool – Highway 193
- Placerville – Gold Nugget Way
- San Andreas – Gold Strike Road
- Jackson – Clinton Road
- Grass Valley – Litton Building

Mojave Desert
- Phelan – Beekley Road & Phelan Road
- Victorville – Armagosa Road
- Joshua Tree – National Monument
- Hesperia – Olive Street
- Lancaster – W Pondera Street

North Central Coast
- Pinnacles National Monument
- Hollister – Fairview Road
- Scotts Valley – Scotts Valley Drive
- King City – 750 Metz Road
- Carmel Valley – Ford Road

North Coast
- Healdburg – Municipal Airport
- Ukiah – E Gobbi Street

Northeast Plateau
- Yreka – Foothill Drive

Sacramento Valley
- Sacramento – Del Paso Manor
- Rocklin – Rocklin Road
- Roseville – N Sunrise Blvd
- Auburn – Dewitt-C Avenue
- North Highlands – Blackfoot Way

Salton Sea
- Calexico – Ethel Street
- Calexico – Grant Street
- Palm Springs – Fire Station
- El Centro – 9th Street
- Calexico – East

San Diego
- Alpine – Victoria Drive
- El Cajon – Redwood Avenue
- Camp Pendleton
- Otay Mesa – Paseo International
- San Diego – Overland Avenue

San Francisco Bay Area
- Livermore – Old 1st Street
- San Jose – 935 Piedmont Road
- Los Gatos
- Concord – 2975 Treat Blvd
- San Martin – Murphy Avenue

San Joaquin Valley
- Edison
- Fresno – 1st Street
- Parlier
- Clovis – N Villa Avenue
- Arvin – Bear Mountain Blvd

South Central Coast
- Simi Valley – Cochran Street
- Thousand Oaks – Moorpark Road
- Ventura County – W Casitas Pass Road
- Ojai – Ojai Avenue
- Las Flores Canyon #1

South Coast
- Glendora – Laurel
- Upland
- Azusa
- Lake Gregory
- Fontana – Arrow Highway

Sites with the highest ozone values, listed in descending order of their peak 1-hour indicator value. The peak value at each site may not exceed the standard. For air basins with five or fewer sites, all sites are listed.

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PM_{10}
1995 Statewide Emissions Inventory – Directly Emitted PM_{10} by Category

The PM_{10} emission inventory includes only directly emitted particulate emissions. However, particulate matter can also be formed in the atmosphere. This secondary PM_{10} is formed by reactions that are driven by emissions of ROG, NO_x, and SO_x. Area-wide sources account for most of the statewide emissions of directly emitted PM_{10}. The major area-wide source of PM_{10} is fugitive dust, especially dust from unpaved roads and agricultural operations. Fugitive dust emissions from unpaved roads are related to motor vehicle population levels due to vehicular travel on unpaved roads. Other sources of PM_{10} emissions include brake and tire wear, residential wood burning, and industrial sources. Exhaust emissions from mobile sources contribute only a very small portion of directly emitted PM_{10} emissions, but are a major source of the ROG and NO_x that form secondary particles.

PM_{10} Emissions (annual average)		
Emissions Source	tons/day	Percent
Stationary Sources	211	10%
Area-wide Sources	1881	85%
On-Road Mobile	67	3%
Gasoline Vehicles	23	1%
Diesel Vehicles	44	2%
Other Mobile Sources	50	2%
Total Statewide	**2208**	**100%**

Table 2-9

Largest Stationary Sources Statewide

Largest Stationary Sources of PM_{10} Statewide

Air Basin	Facility Name	City	PM_{10} (tons/year)
Mojave Desert	Southdown (Cement)	Apple Valley	931
Mountain Counties	Ampine (Wood Products)	Martell	680
Mojave Desert	North American Chemical	Trona	535
South Coast	Chevron USA Inc.	El Segundo	518
South Coast	Arco Products Co.	Carson	484
Mojave Desert	Mitsubishi Cement	Lucerne Valley	472
San Joaquin Valley	Port of Stockton	Stockton	463
Mojave Desert	U.S. Borax	Boron	447
San Francisco Bay Area	Shell Martinez Refining Company	Martinez	446
Salton Sea	Gold Fields Co. Mesquite (Mining)	Brawley	379

Table 2-10

1. Facility totals are for calendar year 1995. Some facilities may have reduced or increased emissions since 1995. These changes will be reflected in subsequent almanacs.

2. The lists of facilities do not include military bases, landfills, or airports.

PM_{10} - 1997 Air Quality

PM_{10} is California's most complex air pollution problem. PM_{10} is not a single substance, but a mixture of a number of highly diverse types of particles and liquid droplets. The chemical make-up of ambient PM_{10} and the origins of the PM_{10} particles vary widely from one area to another. In addition, although there is not a definite "PM_{10} season," PM_{10} air quality does exhibit seasonal differences, and the high PM_{10} season may vary from one area to another.

Most areas of California have either 24-hour or annual PM_{10} concentrations that exceed the State standards and pose a serious health problem. Some areas exceed both standards. Several areas also exceed the national standards. The highest annual values occur in the Salton Sea and South Coast Air Basins. In contrast to the annual values, the highest 24-hour concentrations occur in the desert areas where wind-blown dust contributes to local PM_{10} problems. Particles resulting from combustion contribute to high PM_{10} in a number of urban areas. While many of the control programs implemented for ozone will also reduce PM_{10}, more controls specifically for PM_{10} will be needed to reach attainment.

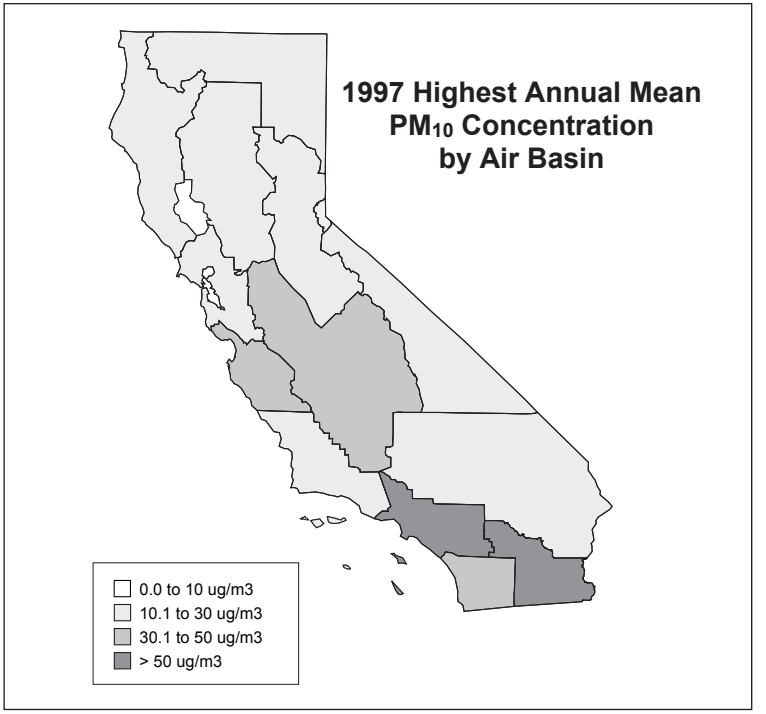

Figure 2-4

PM_{10} – 1997 Air Quality Tables

Maximum Annual Geometric Mean Concentration by Air Basin

Air Basin	1997 Maximum Annual Geometric Mean in Micrograms/Cubic Meter
Great Basin Valleys Air Basin	21.0
Lake County Air Basin	7.7
Lake Tahoe Air Basin	19.6
Mojave Desert Air Basin	27.4
Mountain Counties Air Basin	27.4
North Central Coast Air Basin	31.7
North Coast Air Basin	20.7
Northeast Plateau Air Basin	10.8
Sacramento Valley Air Basin	25.3
Salton Sea Air Basin	76.9
San Diego Air Basin	41.9
San Francisco Bay Area Air Basin	23.7
San Joaquin Valley Air Basin	43.1
South Cental Coast Air Basin	28.4
South Coast Air Basin	56.3

Table 2-11

State Annual Geometric Mean = 30 micrograms/cubic meter, not to be exceeded.

Table 2-12

High PM_{10} Concentration Sites in Each Air Basin

Great Basin Valleys
- Keeler – Cerro Gordo Road
- Mammoth Lakes – Gateway HC
- Lone Pine – E Locust Street

Lake County
- Lakeport – Lakeport Blvd

Lake Tahoe
- South Lake Tahoe – Sandy Way

Mountain Counties
- Truckee – Fire Station
- Loyalton – W 3rd Street
- Yosemite Village – Visitor Center

Mojave Desert
- Hesperia – Olive Street
- Barstow
- Mojave – 923 Poole Street
- Twentynine Palms – Adobe Road #2

North Central Coast
- Davenport
- Salinas – Natividad Road #2

North Coast
- Fort Bragg – N Franklin Street
- Eureka – Health Dept 6th and I Street
- Crescent City – 9th and H Street
- Willits – Firehouse

Northeast Plateau
- Mt Shasta – N Old Stage Road

Sacramento Valley
- Yuba City – Almond Street
- Woodland – Sutter Street
- Colusa – Sunrise Blvd
- West Sacramento – 15th Street
- Chico – Manzanita Avenue

Salton Sea
- Calexico – East
- Calexico – Ethel Street
- Winterhaven – 2nd Avenue
- Indio – Jackson Street
- Brawley – Main Street

San Diego
- Otay Mesa – Paseo International
- San Diego – 12th Avenue
- Chula Vista
- Escondido – E Valley Parkway
- El Cajon – Redwood Avenue

San Francisco Bay Area
- San Jose – 4th Street
- San Francisco – Arkansas Street
- Redwood City
- Livermore – Old 1st Street
- Fremont – Chapel Way

San Joaquin Valley
- Bakersfield – Golden State Highway
- Corcoran – Patterson Avenue
- Fresno – Drummond Street
- Hanford – S Irwin Street
- Corcoran – Van Dorsten Avenue

South Central Coast
- Santa Barbara – W Carillo Street
- Exxon Site 10 – UCSB West Campus
- Point Conception – Lighthouse
- Santa Maria – Library
- El Capitan Beach

South Coast
- Riverside – Rubidoux
- Fontana – Arrow Highway
- San Bernardino – 4th Street
- Ontario – Airport
- Norco – Norconian

Sites with the highest PM_{10} values, listed in descending order of their annual geometric mean concentration. The annual geometric mean at each site may not exceed the standard. For air basins with five of fewer sites, all sites are listed.

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Carbon Monoxide

1995 Statewide Emissions Inventory – Carbon Monoxide by Category

Carbon monoxide (CO) gas is formed as the result of incomplete combustion of fuels and waste materials such as gasoline, diesel fuel, wood, and agricultural debris. Mobile sources generate over 80 percent of the statewide CO emissions. Diesel-powered, on-road vehicles are small CO contributors. Stationary and area-wide sources of CO are the same types of fuel combustion sources that also generate NO_x. The stationary source contribution to statewide CO is small, due in part to widespread use of natural gas as a fuel and the presence of combustion controls.

CO Emissions (annual average)		
Emissions Source	tons/day	Percent
Stationary Sources	348	2%
Area-wide Sources	2529	12%
On-Road Mobile	15461	73%
Gasoline Vehicles	15152	72%
Diesel Vehicles	310	1%
Other Mobile Sources	2795	13%
Total Statewide	**21133**	**100%**

Table 2-13

Largest Stationary Sources Statewide

Largest Stationary Sources of CO Statewide

Air Basin	Facility Name	City	CO (tons/year)
San Francisco Bay Area	E I Dupont De Nemours & Company	Martinez	9165
Mountain Counties	Sierra-Pacific Industries (Wood Products)	Camino	2564
San Francisco Bay Area	Kaiser Cement Corporation	Richmond	2341
Mountain Counties	Sierra-Pacific Industries (Wood Products)	Quincy	2293
Sacramento Valley	Calaveras Cement Company	Redding	2187
Northeast Plateau	Sierra-Pacific Industries (Wood Products)	Susanville	1939
South Coast	Chevron USA Inc.	El Segundo	1793
North Central Coast	Lone Star Industrial Cement Plant	Davenport	1760
North Central Coast	P G & E	Moss Landing	1619
Sacramento Valley	Pacific Oroville Power, Inc.	Oroville	1365

Table 2-14

1. Facility totals are for calendar year 1995. Some facilities may have reduced or increased emissions since 1995. These changes will be reflected in subsequent almanacs.

2. The lists of facilities do not include military bases, landfills, or airports.

Carbon Monoxide – 1997 Air Quality

The State and national carbon monoxide standards are now attained in most areas of California. The requirements for cleaner vehicles and fuels have been primarily responsible for the reductions in CO, despite significant increases in population and the number of vehicle miles traveled each day. However, there are still two problem areas: a limited portion of Los Angeles County and the city of Calexico in Imperial County. Based on projected emissions, the South Coast Air Quality Management District predicts Los Angeles County will attain the national CO standards sometime after the year 2000. The CO problem in Calexico is unique in that this area shares a border with Mexico, and there is a high likelihood that cross-border traffic contributes to the local CO problem. More study is needed to determine the most effective control strategy for this area.

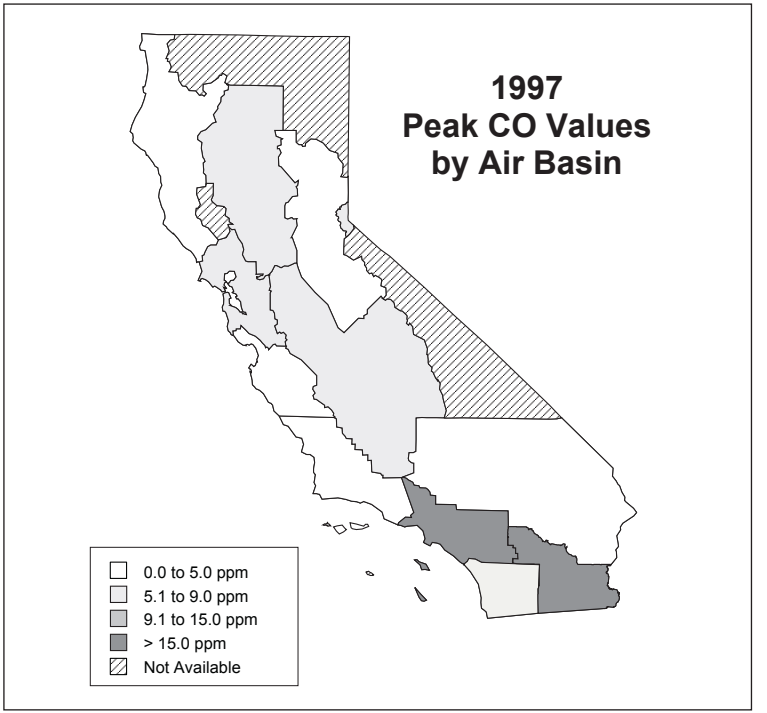

Figure 2-5

Carbon Monoxide – 1997 Air Quality Tables

Maximum Peak 8-Hour Indicator by Air Basin

Air Basin	1997 Maximum Peak 8-Hour Indicator in Parts per Million	Number of Days in 1997 Above State Standard	Number of Days in 1997 Above National Standard
Great Basin Valleys Air Basin	Incomplete Data	0	0
Lake County Air Basin	Incomplete Data	Incomplete Data	Incomplete Data
Lake Tahoe Air Basin	5.6	0	0
Mojave Desert Air Basin	4.8	0	0
Mountain Counties Air Basin	2.4	0	0
North Central Coast Air Basin	1.9	0	0
North Coast Air Basin	3.3	0	0
Northeast Plateau Air Basin	Incomplete Data	Incomplete Data	Incomplete Data
Sacramento Valley Air Basin	7.7	0	0
Salton Sea Air Basin	17.5	13	10
San Diego Air Basin	6.3	0	0
San Francisco Bay Area Air Basin	6.5	0	0
San Joaquin Valley Air Basin	9.0	0	0
South Central Coast Air Basin	5.0	0	0
South Coast Air Basin	15.5	16	12

Table 2-15

Table 2-16

High Carbon Monoxide Concentration Sites in Each Air Basin

Great Basin Valleys
- Mammoth Lakes – Gateway HC

Lake Tahoe
- South Lake Tahoe – Stateline

Mountain Counties
- Sonora – Barretta Street
- Jackson – Clinton Road

Mojave Desert
- Lancaster – W Pondera Street
- Victorville – Armagosa Road
- Hesperia – Olive Street

North Central Coast
- Salinas – Natividad Road #2

North Coast
- Ukiah – E Gobbi Street

Sacramento Valley
- Sacramento – El Camino and Watt
- Sacramento – T Street
- Sacramento – Del Paso Manor
- Chico – Salem Street

Salton Sea
- Calexico – Ethel Street
- Calexico – East
- El Centro – 9th Street

San Diego
- Escondido – E Valley Parkway
- San Diego – Union Street
- San Diego – 12th Avenue

San Francisco Bay Area
- San Jose – 4th Street
- Vallejo – 304 Tuolumne Street
- San Francisco – Ellis Street
- Oakland – Alice Street

San Joaquin Valley
- Fresno – Fisher Street
- Fresno – 1st Street
- Stockton – Claremont
- Modesto – 14th Street

South Central Coast
- Santa Barbara – W Carillo Street
- Simi Valley – Cochran Street

South Coast
- Lynwood
- Hawthorne
- Burbank – W Palm Avenue
- Reseda
- Los Angeles – North Main Street

Sites with the highest CO values, listed in descending order of their peak 8-hour indicator value. The peak value at each site may not exceed the standard. For air basins with five of fewer sites, all sites are listed.

Chapter 3
Historical Statewide Emissions and Air Quality

Introduction
Emission Trends

Emissions of NO_x and PM_{10} increased slightly between 1985 and 1990. NO_x emissions have been declining since 1990. PM_{10} emissions continue to increase due to increases in vehicle miles traveled (VMT) on paved and unpaved roads. Emissions of CO and ROG decreased between 1985 and 1990. The decrease in CO, ROG and NO_x since 1990 occurred even with increases of VMT and population levels in the same period.

Statewide Emissions (tons/day, annual average)			
	1985	**1990**	**1995**
NO_x	3963	4043	3518
ROG	5041	4275	3495
PM_{10}	2053	2275	2414
CO	27538	26087	21162

Table 3-1

Statewide Population and VMT

Airborne pollutants result in large part from human activities, and growth generally has a negative impact on air quality. California is fortunate in that it boasts the world's most progressive emission controls. These controls have resulted in significant air quality improvements, despite substantial growth.

During 1980 through 1997, statewide ozone values decreased 49 percent, and carbon monoxide values dropped 26 percent. These air quality improvements occurred at the same time the State's population increased 39 percent and the number of miles traveled each day (VMT) increased 78 percent. Ambient PM_{10} values show similar improvement — a 31 percent decrease from 1988 to 1997. During this same time, statewide population and VMT increased 16 and 26 percent, respectively. While the air quality improvements are impressive, additional emission controls will be needed to offset future growth.

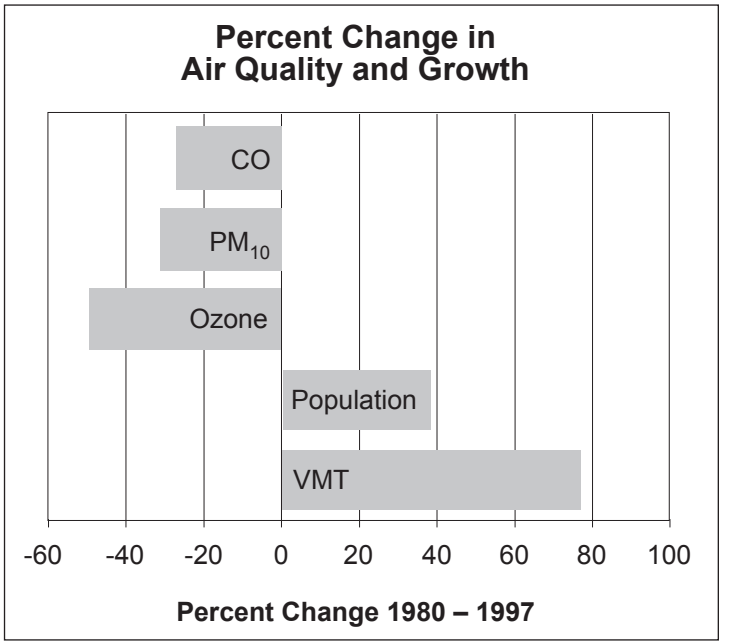

Figure 3-1

Ozone

Emission Trends – Ozone Precursors

NO_x Emission Trends

NO_x emission standards for on-road motor vehicles were introduced in 1971 and followed in later years by the implementation of more stringent standards and the introduction of three-way catalysts. NO_x emissions from on-road motor vehicles have declined by 15 percent from 1990 to 1995. This has occurred as vehicles meeting more stringent emission standards enter the fleet, and all vehicles use cleaner burning gasoline and diesel fuel. Stationary source NO_x emissions dropped by 25 percent between 1985 and 1995. This decrease has been largely due to a switch from fuel oil to natural gas and the implementation of combustion controls such as low-NO_x burners for boilers and catalytic converters for both external and internal combustion stationary sources.

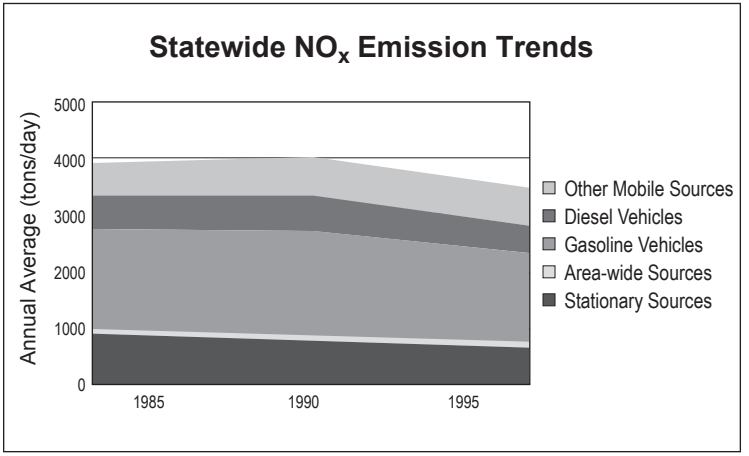

Figure 3-2

ROG Emission Trends

California's motor vehicle emission control program is largely responsible for the 30 percent decline in total statewide ROG emissions since 1985. This includes the use of improved evaporative emission control systems and computerized fuel injection and engine management systems to meet increasingly stringent California emission standards, cleaner gasoline, and the Smog Check program. Substantial reductions have also been obtained for area-wide sources through the vapor recovery program for service stations, bulk plants, and other fuel distribution operations. There are also on-going programs to reduce overall solvent ROG emissions from coatings, consumer products, cleaning and degreasing solvents, and other substances used within California.

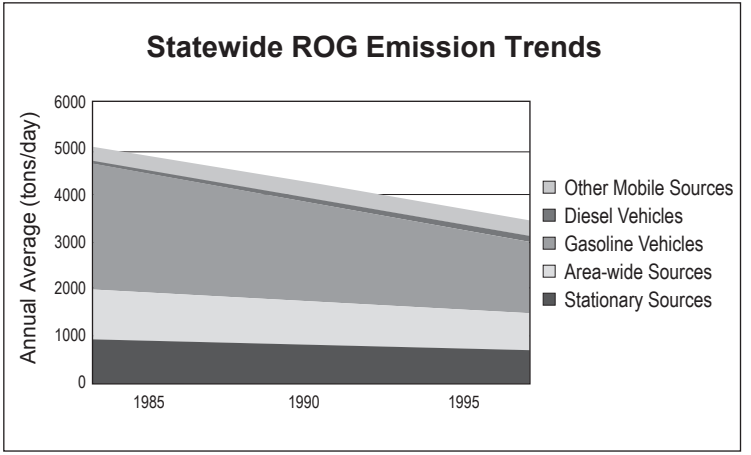

Figure 3-3

Emission Trends – Ozone Precursors

NO_x Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**3963**	**4043**	**3518**
Stationary Sources	883	780	663
Area-wide Sources	133	117	99
On-Road Mobile	2299	2454	2071
Gasoline Vehicles	1747	1807	1563
Diesel Vehicles	552	647	508
Other Mobile Sources	648	692	685

Table 3-2

ROG Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**5041**	**4275**	**3495**
Stationary Sources	936	796	689
Area-wide Sources	1064	906	783
On-Road Mobile	2724	2224	1643
Gasoline Vehicles	2660	2143	1579
Diesel Vehicles	64	81	64
Other Mobile Sources	317	349	380

Statewide Air Quality – Ozone

Air quality as it relates to ozone has improved greatly in all areas of California over the last 17 years, despite significant growth. The statewide trend, which reflects values for the South Coast Air Basin, shows the maximum peak 1-hour indicator declined 49 percent from 1980 to 1997. During this same time period, the population grew by 39 percent and the number of vehicle miles traveled each day was up 78 percent. Motor vehicles are the largest source of ozone precursor emissions, and reducing their emissions will continue to be the cornerstone of California's ozone control efforts. New vehicles must meet the ARB's low emission vehicle standards, which equate to about 95 percent fewer smog-forming emissions than vehicles produced in the 1970s. However, increases in population and driving are partially offsetting the benefits of cleaner vehicles. In addition to motor vehicle controls, the ARB is establishing controls for other sources of ozone precursor emissions, such as consumer products. The ARB and other agencies are also looking at new and more efficient ways of doing business and implementing market incentives to improve air quality.

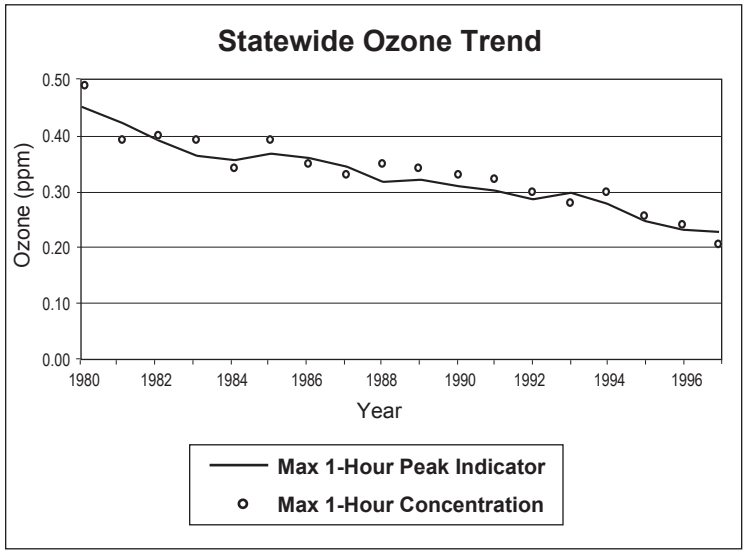

Figure 3-4

Particulate Matter (PM_{10})

Emission Trends – PM_{10}

The upward trend in statewide directly emitted PM_{10} emissions is primarily due to an increase in emissions from area-wide sources. This includes an increase in emissions of unpaved and paved road dust due to increases in vehicle miles traveled (VMT) over these roads. With the adoption of PM_{10} State Implementation Plans and required control measures for the Los Angeles area and the San Joaquin Valley, it is expected that directly emitted PM_{10} emissions from many of the major area-wide sources will decline in the future. Exhaust emissions from diesel vehicles dropped by over 40 percent from 1990 to 1995 due to more stringent emissions standards and the introduction of cleaner burning diesel fuel. PM_{10} emissions from stationary sources are expected to increase slightly in the future due to industrial growth.

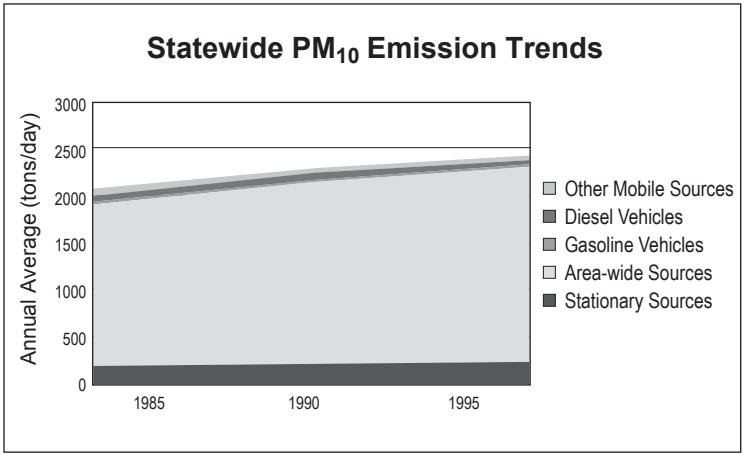

Figure 3-5

Emission Trends – PM_{10}

PM_{10} Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**2053**	**2275**	**2414**
Stationary Sources	189	212	230
Area-wide Sources	1709	1917	2077
On-Road Mobile	105	96	66
Gasoline Vehicles	26	21	23
Diesel Vehicles	79	75	43
Other Mobile Sources	50	50	41

Table 3-3

Statewide Air Quality – PM_{10}

In contrast to ozone and carbon monoxide, PM_{10} concentrations do not relate as well to growth in population or vehicle usage, and high PM_{10} concentrations do not always occur in high population areas. Activities that contribute to high PM_{10} can include wood burning, agricultural activities, and driving on unpaved roads. This graph shows the maximum statewide annual geometric mean PM_{10} concentrations from 1988 to 1997. The trend line does not reflect concentrations measured in the Owens Valley and other desert areas. Typically, concentrations in these desert areas are far above those measured in the populated areas, and they do not reflect the concentrations to which the majority of people are exposed. The trend line shows a fairly steady decline over the trend period, reflecting an overall decrease of about 31 percent. The higher value in 1997 may be due to meteorology rather than an increase in emissions. Currently, over 99 percent of Californians breathe air that violates the State PM_{10} standards during at least part of the year. As a result, particulate matter is commanding greater attention, and much effort will be needed to attain the standards for this pollutant.

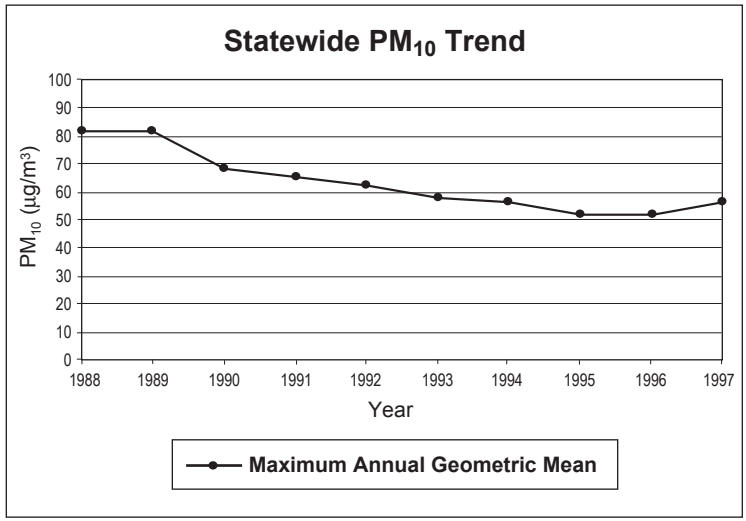

Figure 3-6

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Carbon Monoxide

Emission Trends – Carbon Monoxide

Since 1985, even though motor vehicle miles traveled (VMT) have continued to climb, the adoption of more stringent motor vehicle emissions standards has dropped statewide CO emissions from on-road motor vehicles by over 20 percent. With continued vehicle fleet turnover to cleaner vehicles including ultra low emitting vehicles (ULEV's) and electric vehicles (EV's), and the incorporation of cleaner burning fuels, CO emissions are forecast to continue decreasing at least through the year 2010. CO emissions for stationary sources are expected to increase slowly due to projected industrial growth and the higher emphasis on NO_x controls, which can sometimes increase CO emissions. CO emissions from area-wide sources are expected to increase slightly due to increased waste burning and additional residential fuel combustion resulting from population increases.

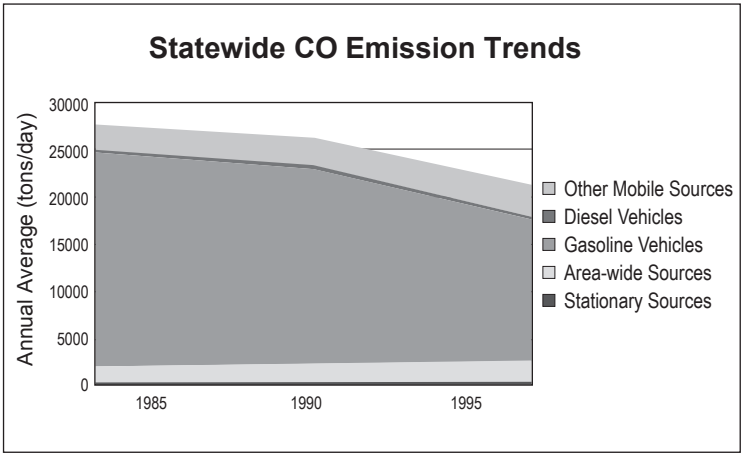

Figure 3-7

Emission Trends – Carbon Monoxide

CO Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**27538**	**26088**	**21162**
Stationary Sources	253	292	299
Area-wide Sources	1810	2082	2140
On-Road Mobile	22856	20787	15444
Gasoline Vehicles	22634	20455	15134
Diesel Vehicles	222	332	310
Other Mobile Sources	2619	2927	3279

Table 3-4

Statewide Air Quality – Carbon Monoxide

Similar to ozone, carbon monoxide concentrations in all areas of California have decreased substantially over the last 17 years, despite significant growth. Statewide, the maximum peak 8-hour indicator declined 26 percent from 1980 to 1997. Currently, the State and national carbon monoxide standards are violated in only two areas: the South Coast Air Basin portion of Los Angeles County and the city of Calexico, in Imperial County. The recent introduction of Cleaner Burning Gasoline has helped bring the rest of the State into attainment. While Cleaner Burning Gasoline has a continuing impact on carbon monoxide levels, additional emission reductions will be needed in the future to keep pace with increases in population and vehicle usage. These reductions will come from continued fleet turnover, expanded use of low emission vehicles, and measures to promote less polluting modes of transportation. In addition, the introduction of zero emission vehicles, such as the electric car, will play an increasingly important role in the coming years.

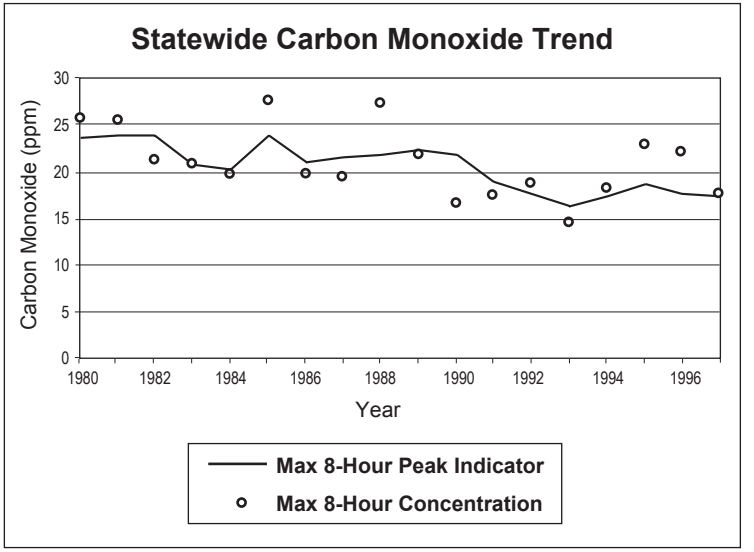

Figure 3-8

Success Stories
Statewide Air Quality – Lead

The decrease in lead emissions and ambient lead concentrations over the past 20 years is California's most dramatic success story. The rapid decrease in lead concentrations can be attributed primarily to phasing out the lead in gasoline. This phase-out began during the 1970s, and subsequent ARB regulations have virtually eliminated all lead from the gasoline now sold in California. All areas of the State are currently designated as attainment for the State lead standard (the United States Environmental Protection Agency does not designate areas for the national lead standard). Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose "hot spot" problems in some areas. As a result, the ARB identified lead as a toxic air contaminant in 1997.

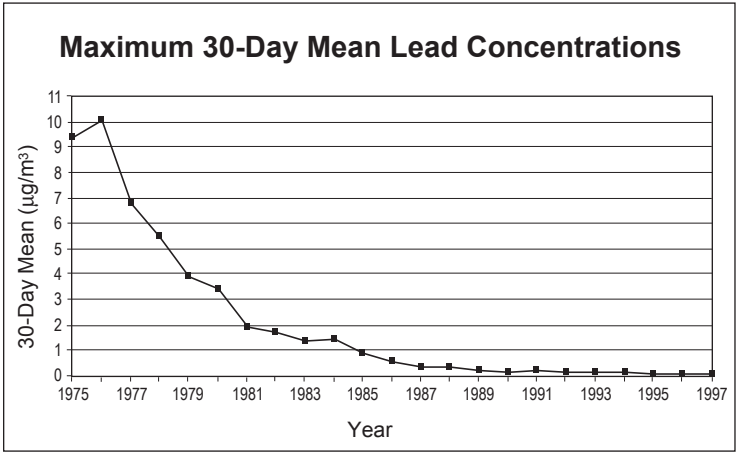

Figure 3-9

Nitrogen Dioxide

Emission Trends – Oxides of Nitrogen

Nitrogen dioxide (NO_2) is a colorless, odorless gas that can cause lung damage, chronic lung disease, and respiratory infections. Nitrogen dioxide is a component of NO_x and its presence in the atmosphere can be correlated with emissions of NO_x. Statewide emissions of NO_x have decreased by 13 percent from 1990 to 1995 as a result of more stringent emissions standards for stationary source combustion and motor vehicles, and cleaner burning fuels. The introduction of lower emitting vehicles will continue to further reduce NO_x emissions.

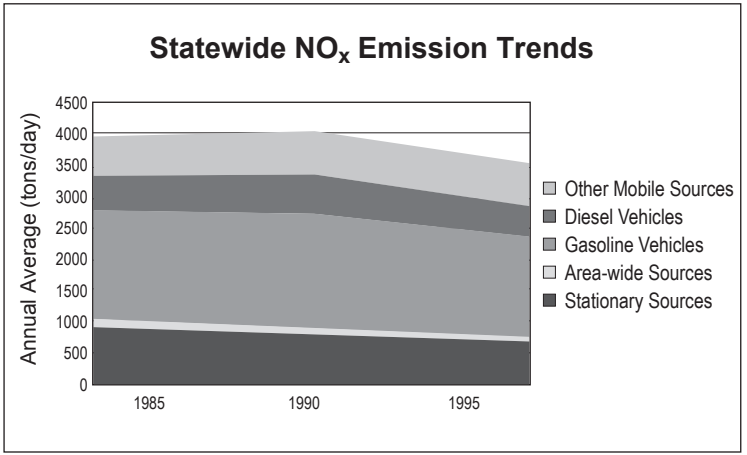

Figure 3-10

Emission Trends – Oxides of Nitrogen

NO_x Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**3963**	**4043**	**3518**
Stationary Sources	883	780	663
Area-wide Sources	133	117	99
On-Road Mobile	2299	2454	2071
Gasoline Vehicles	1747	1807	1563
Diesel Vehicles	552	647	508
Other Mobile Sources	648	692	685

Table 3-5

Statewide Air Quality – Nitrogen Dioxide

Oxides of nitrogen (NO_x) emissions are a by-product of combustion from both mobile and stationary sources, and they contribute to ambient nitrogen dioxide (NO_2) concentrations. Since 1975, maximum NO_2 concentrations have decreased more than 50 percent, due primarily to the implementation of tighter controls on both mobile and stationary sources. Many of these controls were implemented to reduce ozone, however, they also benefited NO_2. All areas of California are currently designated as attainment for the State standard and unclassified/attainment for the national nitrogen dioxide standard. Projections show NO_x emissions will continue to decline, thereby assuring continued attainment.

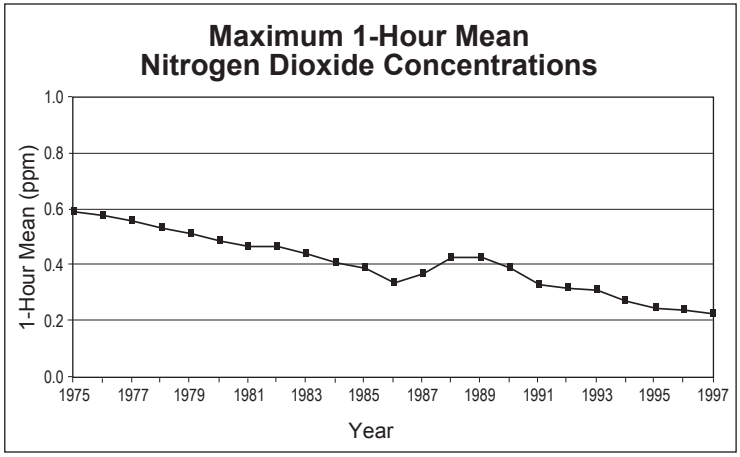

Figure 3-11

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Sulfur Dioxide

Emission Trends – Oxides of Sulfur

SO_x (oxides of sulfur) is a group of compounds of sulfur and oxygen. A major constituent of SO_x is sulfur dioxide (SO_2). Emissions of SO_x have been declining over the last 20 years. Emissions in 1995 were about 40 percent less than emissions in 1985. Sulfur dioxide emissions from stationary and area-wide sources were decreased between 1985 and 1995 due to improved industrial source controls and switching from fuel oil to natural gas for electric generation. The SO_x emissions from both gasoline and diesel vehicle exhaust have also decreased due to lower sulfur content in the fuel.

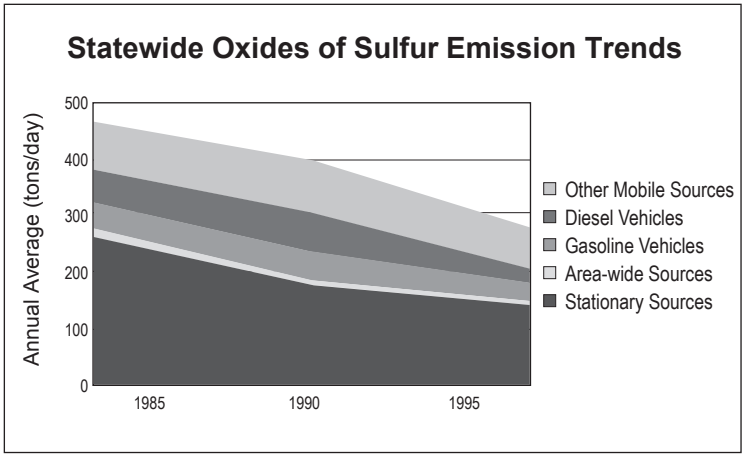

Figure 3-12

Emission Trends – Oxides of Sulfur

SO_x Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**464**	**393**	**275**
Stationary Sources	262	174	140
Area-wide Sources	10	7	6
On-Road Mobile	104	121	55
Gasoline Vehicles	48	53	32
Diesel Vehicles	56	68	23
Other Mobile Sources	88	91	74

Table 3-6

Statewide Air Quality – Sulfur Dioxide

Similar to oxides of nitrogen, oxides of sulfur (SO_x) emissions come from both mobile and stationary sources. These SO_x emissions contribute to ambient sulfur dioxide (SO_2) concentrations. While SO_2 poses significant problems in other parts of the nation, SO_x emissions in California have been reduced sufficiently over the last 20 years so that all areas of California now attain the State standards for sulfur dioxide. Many of the major urban areas are also designated as attainment for the national sulfur dioxide standards. However, most of California is designated as unclassified. With current and anticipated SO_x emission control measures, all areas of the State are expected to remain attainment for SO_2.

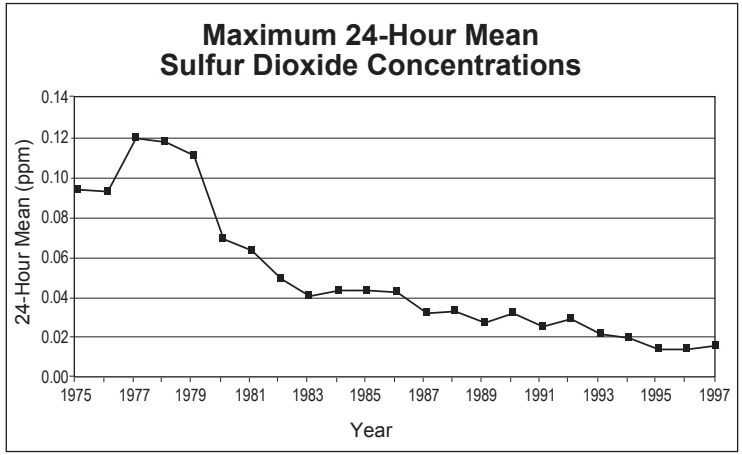

Figure 3-13

Chapter 4

Historical Basinwide Emissions and Air Quality

Introduction

This chapter includes information about historical emission and air quality trends in California's five most populated air basins: the South Coast Air Basin, the San Francisco Bay Area Air Basin, the San Joaquin Valley Air Basin, the San Diego Air Basin, and the Sacramento Valley Air Basin. The primary focus of the chapter is ozone, PM_{10}, and carbon monoxide. However, information on nitrogen dioxide is included for the South Coast Air Basin and San Diego Air Basin because these areas were once designated as nonattainment for NO_2. However, both areas now attain the nitrogen dioxide standards.

The introduction section for each air basin includes a description of the area, a discussion of the emission trends for each pollutant, and a description of the changes in population and the number of vehicle miles traveled each day in the air basin. This introduction is followed by more detailed discussions of trends in emissions by major source categories and ambient air quality, organized by pollutant.

South Coast Air Basin
Introduction – Area Description

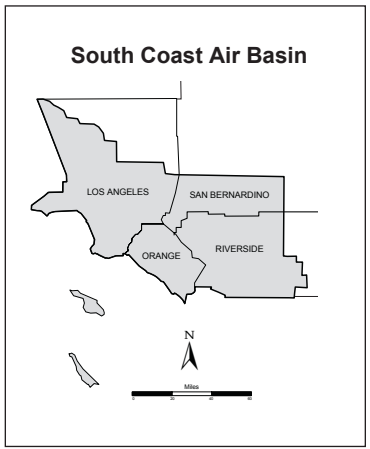

Figure 4-1

The South Coast Air Basin is California's largest metropolitan region. The area includes the southern two-thirds of Los Angeles County, all of Orange County, and the western urbanized portions of Riverside and San Bernardino counties. It covers a total of 6,530 square miles, is home to nearly half of California's population, and generates about one-third of the State's total criteria pollutant emissions. The South Coast Air Basin generally forms a lowland plain, bounded by the Pacific Ocean on the west and by mountains on the other three sides.

In terms of air pollution potential, there are probably few areas less suited for urban development. The warm sunny weather associated with a persistent high pressure system is conducive to the formation of ozone, commonly referred to as "smog." The problem is further aggravated by the surrounding mountains, frequent low inversion heights, and stagnant air conditions. All of these factors act together to trap pollutants in the Basin. Pollutant concentrations in parts of the South Coast Air Basin are among the highest in California. As a result, controlling the contributing emission sources poses a great challenge to State and local air pollution control agencies.

South Coast Air Basin
Emission Trends

Overall, since 1985 the emission levels for all pollutants in the South Coast Air Basin are decreasing. The decreases are predominantly due to motor vehicle controls and reductions in evaporative emissions. In the South Coast Air Basin, on-road motor vehicles are by far the largest contributors to CO, NO_x, and ROG emissions. Other mobile sources are also significant contributors to CO and NO_x emissions.

South Coast Air Basin
Population and VMT

Both population and the daily number of vehicle miles traveled, or VMT, grew at high rates in the South Coast Air Basin from 1980 to 1997. The population increased 37 percent — from 10.4 million in 1980 to more than 14 million in 1997. During the same 17-year period, the number of vehicle miles traveled each day increased about 75 percent — from 177 million miles per day in 1980 to nearly 310 million miles per day in 1997. While high growth rates are often associated with corresponding increases in emissions and pollutant concentrations, aggressive emission control programs in the South Coast Air Basin have resulted in emission decreases and a continuing improvement in air quality.

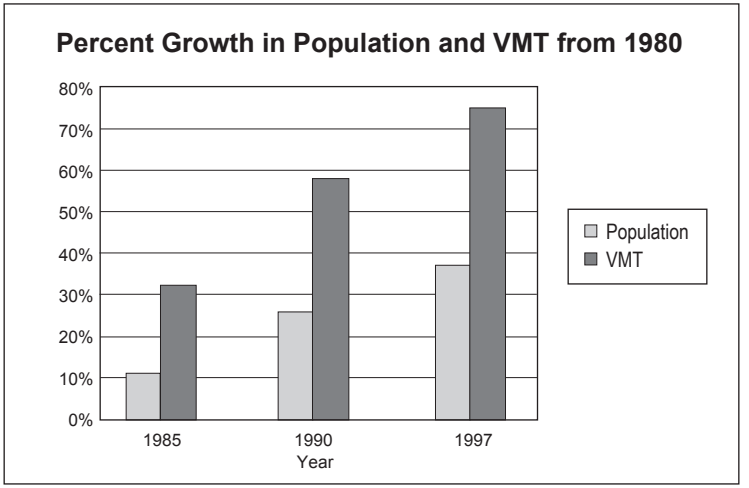

Figure 4-2

South Coast Air Basin
Ozone Precursor Emission Trends

Emissions of the ozone precursors NO_x and ROG in the South Coast Air Basin are generally following the statewide downward trend. Motor vehicle miles traveled in the basin are increasing, but NO_x and ROG emissions from on-road vehicles are dropping as more stringent vehicle emission standards have been adopted. NO_x emissions from electric utilities in the basin have declined substantially since 1975, despite a nationwide increase in emissions from electric utilities in the same time period. These large reductions are primarily due to increased use of natural gas as the principal fuel for power plants and control rules that limit NO_x emissions.

NO_x Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**1395**	**1384**	**1214**
Stationary Sources	221	164	136
Area-wide Sources	61	45	37
On-Road Mobile	883	929	791
Gasoline Vehicles	695	669	581
Diesel Vehicles	188	260	210
Other Mobile Sources	230	246	250

Table 4-1

ROG Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**1774**	**1535**	**1221**
Stationary Sources	369	349	284
Area-wide Sources	259	244	198
On-Road Mobile	1043	830	616
Gasoline Vehicles	1020	796	589
Diesel Vehicles	23	34	27
Other Mobile Sources	103	112	123

Table 4-2

South Coast Air Basin
Ozone Precursor Emission Trends

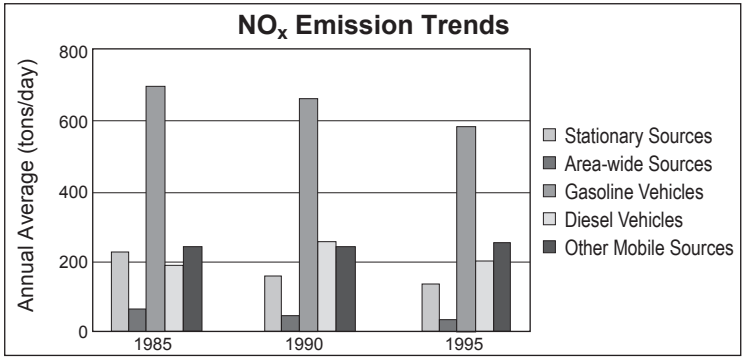

Figure 4-3

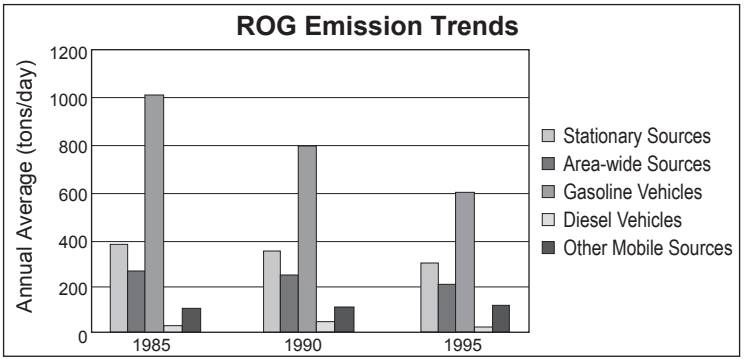

Figure 4-4

South Coast Air Basin
Ozone Air Quality Trend

Air quality as it relates to ozone in the South Coast Air Basin has improved substantially over the last 30 years. During the 1960s, concentrations above 0.60 parts per million were not uncommon. Today, the maximum measured concentrations are less than half that. All of the ozone statistics show a steady decline. The 1997 peak indicator value is about 50 percent of the 1980 value. The maximum 1-hour concentration has decreased by more than 50 percent. The number of days above the standards has declined dramatically, as well as the number of episode days. Stage I and Stage II episodes occur when a 1-hour concentration reaches 0.20 ppm and 0.35 ppm, respectively. The last Stage II episode occurred in 1986. While Stage I episodes still occur, the number has been reduced from close to 100 during the early 1980s to only one during 1997.

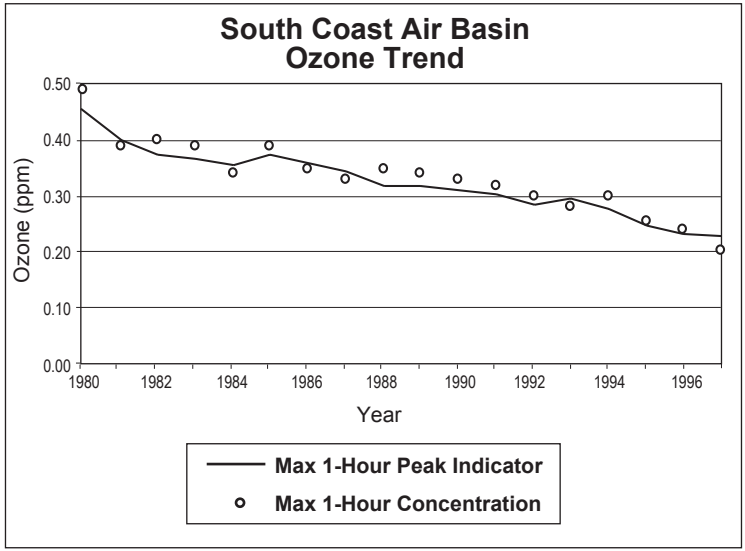

Figure 4-5

South Coast Air Basin
Ozone Air Quality Table
Ozone (ppm)

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.451	0.401	0.373	0.365	0.354	0.375	0.360	0.344	0.319	0.320	0.310	0.304	0.286	0.297	0.279	0.249	0.233	0.229
National 1-Hour Design Value	0.430	0.420	0.390	0.360	0.360	0.360	0.350	0.350	0.340	0.330	0.330	0.310	0.300	0.300	0.280	0.250	0.231	0.215
National 8-Hour Design Value	0.271	0.240	0.231	0.239	0.216	0.234	0.226	0.193	0.199	0.191	0.176	0.183	0.184	0.173	0.164	0.166	0.155	0.135
Maximum 1-Hour Concentration	0.490	0.390	0.400	0.390	0.340	0.390	0.350	0.330	0.350	0.340	0.330	0.320	0.300	0.280	0.300	0.256	0.239	0.205
Maximum 8-Hour Concentration	0.337	0.283	0.266	0.258	0.249	0.288	0.251	0.210	0.259	0.253	0.194	0.204	0.219	0.195	0.208	0.204	0.174	0.149
Days Above State Standard	210	233	198	192	209	207	217	196	216	211	185	184	190	185	165	153	141	144
Days Above Nat. 1-Hour Standard	167	187	151	153	175	158	167	160	178	157	131	130	142	124	118	98	85	64

Table 4-3

South Coast Air Basin
PM_{10} Emission Trends

Direct emissions of PM_{10} were relatively flat in the South Coast Air Basin between 1985 and 1995. A decrease in emissions would have been observed if not for growth in emissions from area-wide sources, primarily fugitive dust from paved and unpaved roads. A PM_{10} State Implementation Plan has been adopted for the basin. Control measures adopted in support of this plan are expected to reduce PM_{10} emissions in the future.

PM_{10} Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**503**	**549**	**496**
Stationary Sources	33	36	33
Area-wide Sources	414	459	421
On-Road Mobile	42	39	28
Gasoline Vehicles	12	9	10
Diesel Vehicles	30	30	18
Other Mobile Sources	14	15	14

Table 4-4

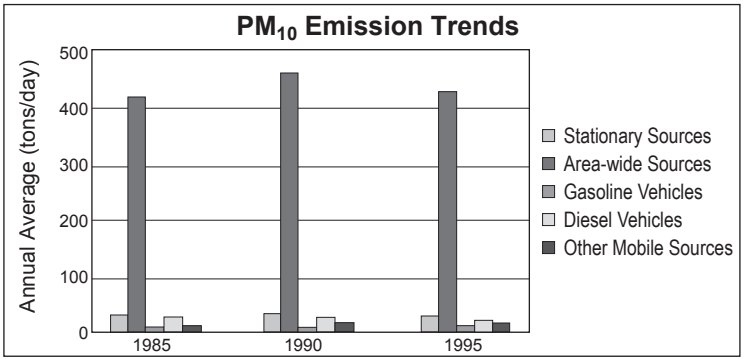

Figure 4-6

South Coast Air Basin
PM_{10} Air Quality Trend

As with other pollutants, the PM_{10} statistics show overall improvement. During the period for which data are available, the maximum annual geometric mean decreased 31 percent. Despite this decrease, ambient concentrations still exceed both the State and the national annual PM_{10} standards. The number of days above the 24-hour PM_{10} standards also dropped. During 1988, there were 65 days above the State standard and 30 days above the national standard. By 1997, there were still 54 State standard exceedance days, but only 6 national standard exceedance days.

PM_{10} continues to pose a significant problem in the South Coast Air Basin. While emission controls implemented for ozone will also benefit PM_{10}, more controls aimed specifically at reducing PM_{10} will be needed to reach attainment.

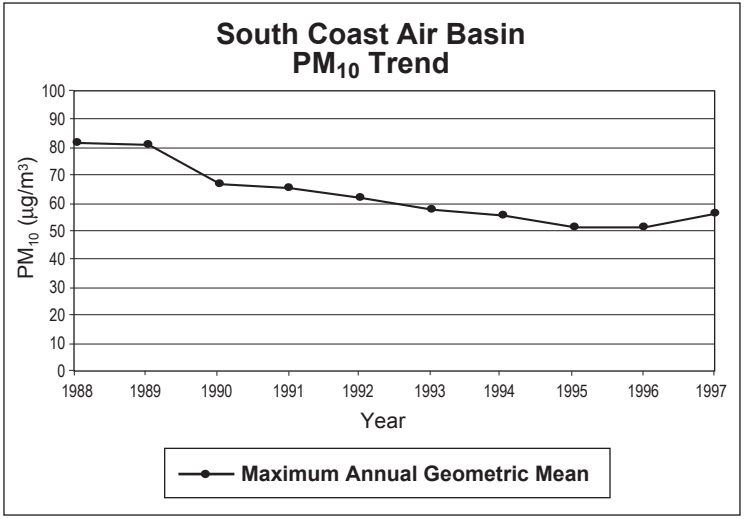

Figure 4-7

South Coast Air Basin

PM_{10} Air Quality Table

PM_{10} (µg/m³)

PM_{10} (µg/m³)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									289	271	475	179	649	231	161	219	162	227
Maximum Annual Geometric Mean									81.8	81.3	66.9	65.5	62.4	58.0	56.0	51.8	52.0	56.3
Days Above State 24-Hour Standard									65	67	65	56	52	61	58	51	51	54
Calc. Days Above Nat. 24-Hour Std.									30	33	18	12	12	18	6	24	6	6

Table 4-5

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South Coast Air Basin
Carbon Monoxide Emission Trends

Emissions of CO have been trending downward since 1985 in the South Coast Air Basin even though motor vehicle miles traveled have increased and industrial activity has grown. On-road motor vehicle controls are primarily responsible for this decline in emissions of CO. Stationary source emissions decreased during the 1970s and 1980s as a result of a decline in the manufacture of carbon black (a material used in the manufacture of tires) and steel in the South Coast Air Basin. CO emissions from other mobile sources have increased due in part to larger populations of off-road recreational vehicles and boats.

CO Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**9941**	**8936**	**7212**
Stationary Sources	34	39	39
Area-wide Sources	233	272	268
On-Road Mobile	8587	7430	5542
Gasoline Vehicles	8509	7294	5413
Diesel Vehicles	78	136	129
Other Mobile Sources	1087	1195	1363

Table 4-6

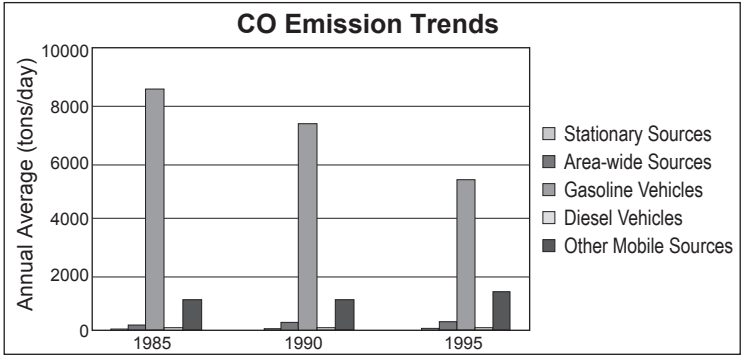

Figure 4-8

South Coast Air Basin
Carbon Monoxide Air Quality Trend

Carbon monoxide concentrations in the South Coast Air Basin have decreased markedly — a total decrease of 35 percent in the maximum peak 8-hour value since 1980. The number of standard exceedance days has also declined. There were more than 90 days above the State and the national standards during 1980. However, during 1997, there were only 16 State standard exceedance days and 12 national standard exceedance days.

While the South Coast Air Basin is designated as nonattainment, violations of the State and national standards are now limited to only a small portion of Los Angeles County. No violations have occurred in the other three counties since 1992. Continued reductions in motor vehicle emissions should eventually bring the entire area into attainment.

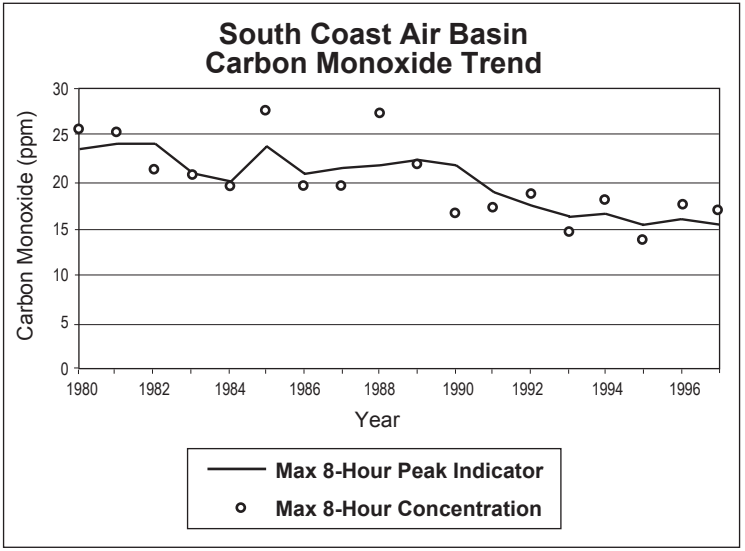

Figure 4-9

South Coast Air Basin

Carbon Monoxide Air Quality Table

Carbon Monoxide (ppm)

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	23.7	24.1	24.1	21.0	20.3	24.0	21.1	21.7	21.9	22.5	21.9	19.0	17.7	16.5	16.7	15.6	16.1	15.5
Maximum 1-Hour Concentration	31.0	31.0	27.0	31.0	29.0	33.0	27.0	26.0	32.0	31.0	24.0	30.0	28.0	21.0	24.9	16.8	22.5	19.2
Maximum 8-Hour Concentration	25.8	25.5	21.3	20.9	19.7	27.7	19.7	19.6	27.5	21.8	16.8	17.4	18.8	14.6	18.2	13.8	17.5	17.1
Days Above State 8-Hour Standard	98	84	71	60	73	64	56	43	66	70	47	44	32	24	28	18	23	16
Days Above Nat. 8-Hour Standard	94	76	69	53	67	53	49	39	58	64	44	39	28	19	20	14	17	12

Table 4-7

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South Coast Air Basin

Nitrogen Dioxide

Oxides of Nitrogen Emission Trends

NO_x (and nitrogen dioxide) emissions in the South Coast Air Basin have declined between 1985 and 1995. This downward trend should continue as more stringent motor vehicle and stationary source emissions standards are adopted.

NO_x Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**1395**	**1384**	**1214**
Stationary Sources	221	164	136
Area-wide Sources	61	45	37
On-Road Mobile	883	929	791
Gasoline Vehicles	695	669	581
Diesel Vehicles	188	260	210
Other Mobile Sources	230	246	250

Table 4-8

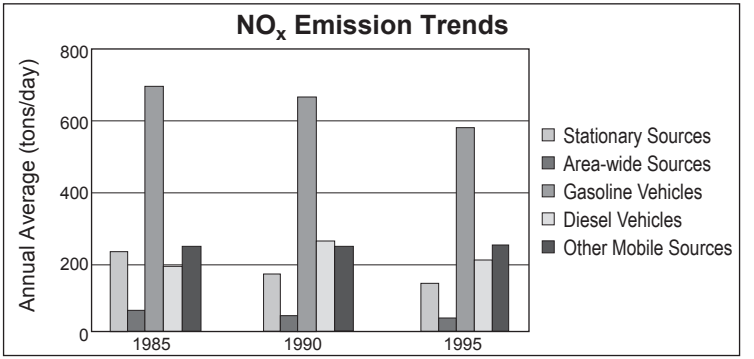

Figure 4-10

South Coast Air Basin
Nitrogen Dioxide Air Quality Trend

The South Coast Air Basin is one of only a few areas in California where nitrogen dioxide has been a problem. However, over the last 17 years, there has been a fairly steady decline in NO_2 values. The maximum peak 1-hour indicator for 1997 was nearly half what it was during 1980. Nitrogen dioxide concentrations in the South Coast area no longer exceed the State and national standards. Furthermore, the downward trend should continue in the future.

Nitrogen dioxide is formed from oxides of nitrogen emissions, which also contribute to ozone. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for about 75 percent of California's oxides of nitrogen emissions.

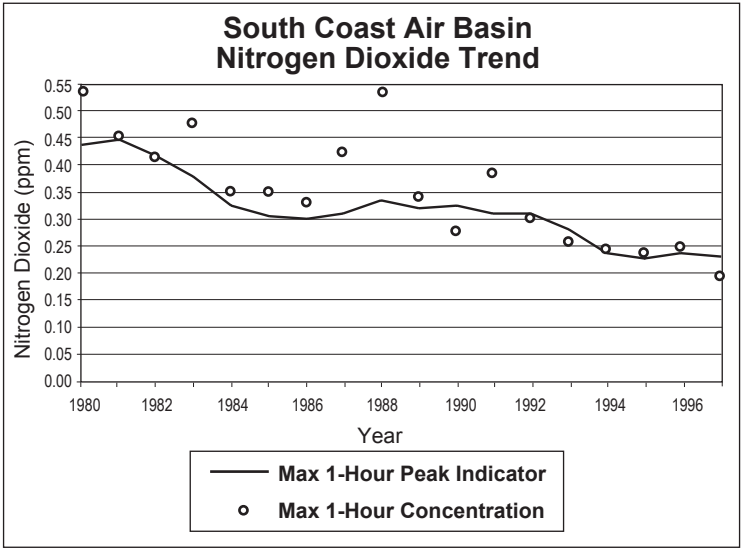

Figure 4-11

South Coast Air Basin

Nitrogen Dioxide Air Quality Table

Nitrogen Dioxide (ppm)

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.433	0.445	0.414	0.378	0.325	0.307	0.303	0.311	0.335	0.323	0.325	0.312	0.311	0.285	0.241	0.229	0.242	0.237
Maximum 1-Hour Concentration	0.540	0.450	0.410	0.470	0.350	0.350	0.330	0.420	0.540	0.340	0.280	0.380	0.300	0.260	0.247	0.239	0.250	0.200
Maximum Annual Average	0.071	0.071	0.062	0.059	0.057	0.060	0.061	0.055	0.061	0.057	0.055	0.055	0.051	0.050	0.050	0.046	0.048	0.043

Table 4-9

San Francisco Bay Area Air Basin
Introduction – Area Description

Figure 4-12

The San Francisco Bay Area is California's second largest metropolitan area and is the focal point of northern California. The nine county area comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern half of Sonoma County, and the southwestern portion of Solano County. The unifying feature of the area is the Bay itself, oriented north-south and covering about 400 square miles of the area's total 5,540 square miles.

About 20 percent of California's population resides in the San Francisco Bay Area, and pollution sources in the region account for about 20 percent of the total statewide emissions. The climate in the San Francisco Bay Area varies from one location to the next. Along the coast, temperatures are mild year-round. However, as one moves inland, temperatures show larger diurnal and seasonal variations. Overall air quality in the San Francisco Bay Area Air Basin is better than in the South Coast Air Basin. This is due in part to a more favorable climate, with cooler temperatures and better ventilation. However, continued infrequent exceedances of the national ozone standard still pose a challenge to State and local air pollution control agencies.

San Francisco Bay Area Air Basin
Emission Trends

The emission levels for all pollutants are trending downward in the San Francisco Bay Area Air Basin. On-road motor vehicles are the largest contributors to CO, ROG, and NO_x emissions in the basin. The implementation of stricter motor vehicle emission standards will continue to decrease vehicle emissions in the basin. Controls on stationary source solvent evaporation and fugitive emissions will also continue to impact ROG emissions.

San Francisco Bay Area Air Basin
Population and VMT

Compared to the State's other urban areas, population and the number of vehicle miles traveled each day grew at a slower rate in the San Francisco Bay Area Air Basin from 1980 to 1997. During that 17-year period, the population increased about 27 percent — from about 5 million in 1980 to almost 6.5 million in 1997. During the same period, the daily VMT increased 43 percent — from nearly 87 million miles per day in 1980 to about 124 million miles per day in 1997. While these growth rates are about half the growth rates seen in the other urban areas, they still represent substantial increases.

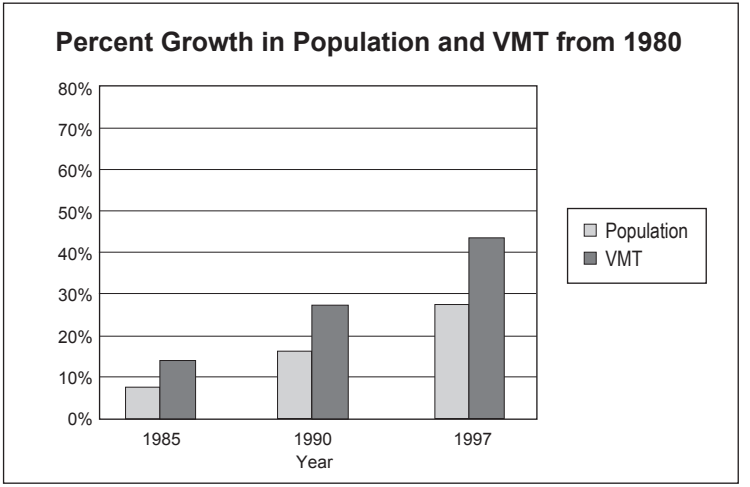

Figure 4-13

San Francisco Bay Area Air Basin
Ozone Precursor Emission Trends

Emissions of ozone precursors are decreasing in the San Francisco Bay Area Air Basin. The Bay Area has a significant motor vehicle population, and the implementation of stricter motor vehicle controls has resulted in significant emissions reductions for NO_x and ROG. Stationary source emissions of ROG have declined over the last 20 years due to new controls for oil refinery fugitive emissions and new rules for control of ROG from various industrial coatings and solvent operations.

NO_x Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**687**	**651**	**576**
Stationary Sources	150	121	110
Area-wide Sources	33	27	24
On-Road Mobile	413	403	337
Gasoline Vehicles	326	323	275
Diesel Vehicles	87	80	62
Other Mobile Sources	91	100	105

Table 4-10

ROG Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**921**	**721**	**557**
Stationary Sources	184	145	115
Area-wide Sources	157	124	98
On-Road Mobile	534	404	294
Gasoline Vehicles	524	395	287
Diesel Vehicles	10	9	7
Other Mobile Sources	46	48	50

Table 4-11

San Francisco Bay Area Air Basin
Ozone Precursor Emission Trends

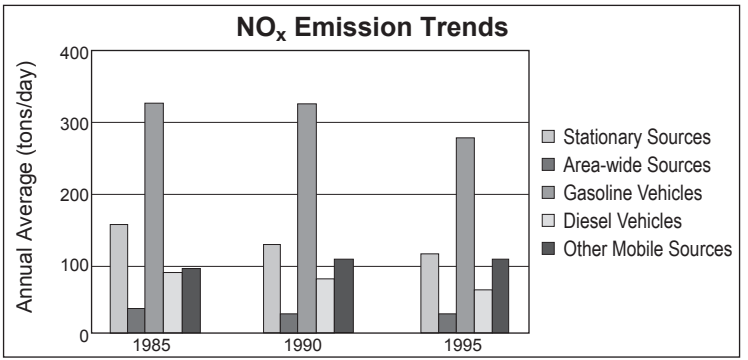

Figure 4-14

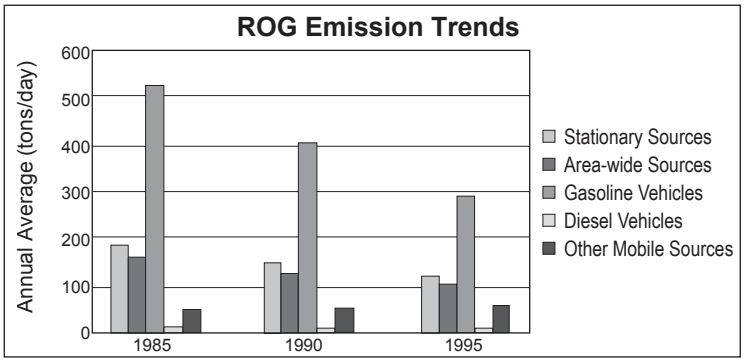

Figure 4-15

San Francisco Bay Area Air Basin
Ozone Air Quality Trend

Ozone concentrations in the San Francisco Bay Area are much lower than in the South Coast Air Basin. The peak ozone indicator declined about 20 percent from 1980 to 1997. Although the trend has not been consistently downward, the ambient concentrations generally declined from 1980 to 1994. Since 1994, the peak indicator values have risen. However, the data are limited, and it is not clear that these data represent a significant change in the overall trend.

The number of days above the State and national standards show a similar trend. The number of exceedance days generally decreased until the mid-1990s, increased during 1995 and 1996, and decreased again in 1997. More data are needed to determine whether the increases during 1995 and 1996 were anomalous, or whether they represent meteorology that will be frequently repeated.

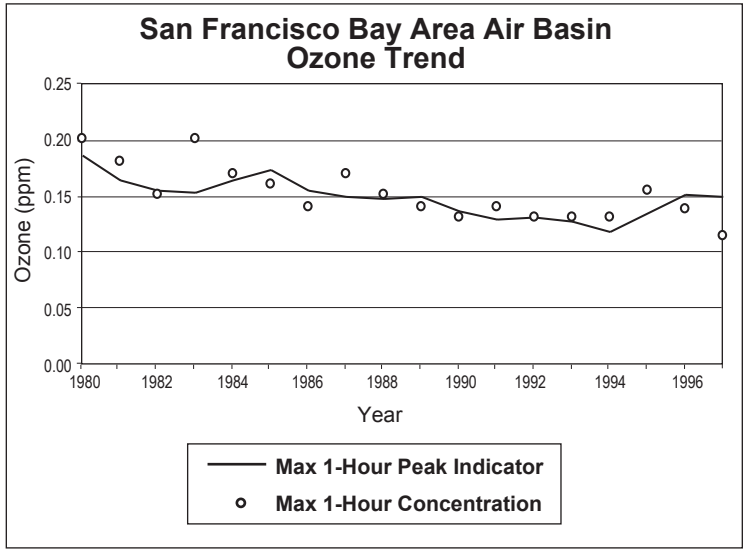

Figure 4-16

San Francisco Bay Area Air Basin

Ozone Air Quality Table

Ozone (ppm)

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.186	0.162	0.154	0.153	0.164	0.173	0.155	0.149	0.147	0.148	0.136	0.129	0.130	0.126	0.117	0.135	0.151	0.149
National 1-Hour Design Value	0.190	0.190	0.180	0.160	0.160	0.160	0.150	0.140	0.140	0.140	0.130	0.130	0.120	0.120	0.121	0.138	0.138	0.138
National 8-Hour Design Value	0.115	0.098	0.093	0.110	0.110	0.095	0.093	0.106	0.096	0.094	0.088	0.086	0.083	0.083	0.083	0.099	0.099	0.072
Maximum 1-Hour Concentration	0.200	0.180	0.150	0.200	0.170	0.160	0.140	0.170	0.150	0.140	0.130	0.140	0.130	0.130	0.130	0.155	0.138	0.114
Maximum 8-Hour Concentration	0.150	0.124	0.109	0.150	0.124	0.128	0.106	0.116	0.101	0.103	0.105	0.109	0.101	0.113	0.097	0.115	0.113	0.085
Days Above State Standard	47	51	36	53	55	45	39	46	41	22	14	23	23	19	13	28	34	8
Days Above Nat. 1-Hour Standard	18	8	5	21	22	9	5	14	5	4	2	2	2	3	2	11	8	0

Table 4-12

San Francisco Bay Area Air Basin
PM_{10} Emission Trends

Direct emissions of PM_{10} increased slightly in the San Francisco Bay Area Air Basin between 1985 and 1995. This increase was due to growth in emissions from area-wide sources, primarily fugitive dust sources. Emissions of directly emitted PM_{10} from motor vehicle exhaust decreased steadily between 1985 and 1995 due to new emissions standards.

PM_{10} Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**183**	**188**	**193**
Stationary Sources	22	23	24
Area-wide Sources	138	147	154
On-Road Mobile	15	12	9
Gasoline Vehicles	4	3	4
Diesel Vehicles	11	9	5
Other Mobile Sources	8	6	6

Table 4-13

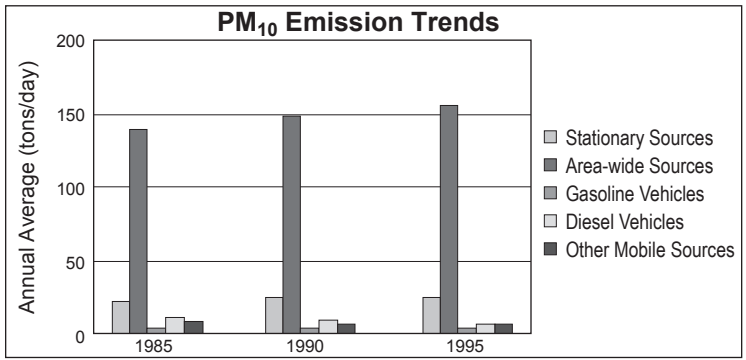

Figure 4-17

San Francisco Bay Area Air Basin
PM_{10} Air Quality Trend

PM_{10} is generally sampled only once every six days. As a result, there are fewer data on which to base historical trends. However, based on the data that are available, the annual geometric mean concentration declined about 32 percent from 1988 to 1997.

The data show that the annual State standard has not been exceeded for the last several years. Furthermore, exceedances of the State 24-hour standard dropped from 51 days during 1989 to only 4 days during 1997. The national 24-hour standard was last exceeded in 1991. Because many of the same sources contribute to both ozone and PM_{10}, future ozone precursor emission controls should help ensure continued PM_{10} improvements.

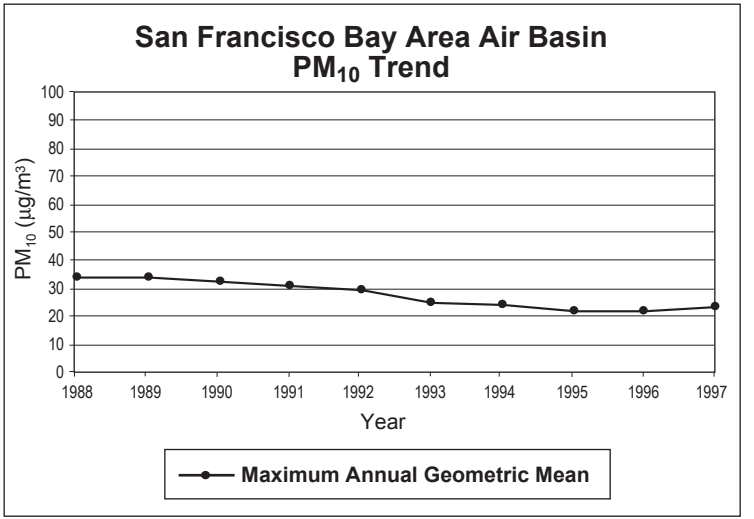

Figure 4-18

San Francisco Bay Area Air Basin

PM_{10} Air Quality Table

PM_{10} (µg/m³)

PM_{10} (µg/m³)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									146	150	173	155	112	101	97	74	76	95
Maximum Annual Geometric Mean									34.6	34.4	33.0	31.5	29.5	25.1	24.8	22.1	22.1	23.7
Days Above State 24-Hour Standard									32	51	34	36	19	11	10	7	3	4
Calc. Days Above Nat. 24-Hour Std.									0	0	6	3	0	0	0	0	0	0

Table 4-14

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San Francisco Bay Area Air Basin
Carbon Monoxide Emission Trends

Emissions of CO have declined in the San Francisco Bay Area Air Basin over the last 10 years. Motor vehicles and other mobile sources are the largest source of CO emissions in the basin. Emissions from motor vehicles have been declining, with the introduction of new automotive emission controls, despite increases in Vehicle Miles Traveled (VMT). Oil refinery processes contribute a significant portion of the stationary source CO emissions.

CO Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**5151**	**4593**	**3711**
Stationary Sources	46	48	48
Area-wide Sources	202	211	212
On-Road Mobile	4479	3862	2917
Gasoline Vehicles	4445	3824	2881
Diesel Vehicles	34	38	36
Other Mobile Sources	424	472	534

Table 4-15

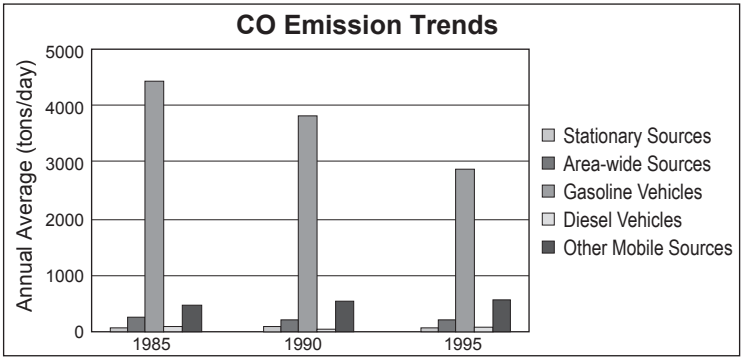

Figure 4-19

San Francisco Bay Area Air Basin
Carbon Monoxide Air Quality Trend

As in other areas of the State, carbon monoxide concentrations in the San Francisco Bay Area Air Basin have declined substantially over the last 17 years. The peak 8-hour indicator value during 1997 was less than half what it was during 1980 and is now well below the level of the standards. In fact, neither the State nor the national standards have been exceeded in this area since 1991.

Much of the decline in ambient carbon monoxide concentrations can be attributed to the introduction of clean fuels and newer, cleaner motor vehicles. The San Francisco Bay Area Air Basin is currently designated as attainment for both the State and national CO standards. Based on emission projections, the area is expected to maintain its attainment status.

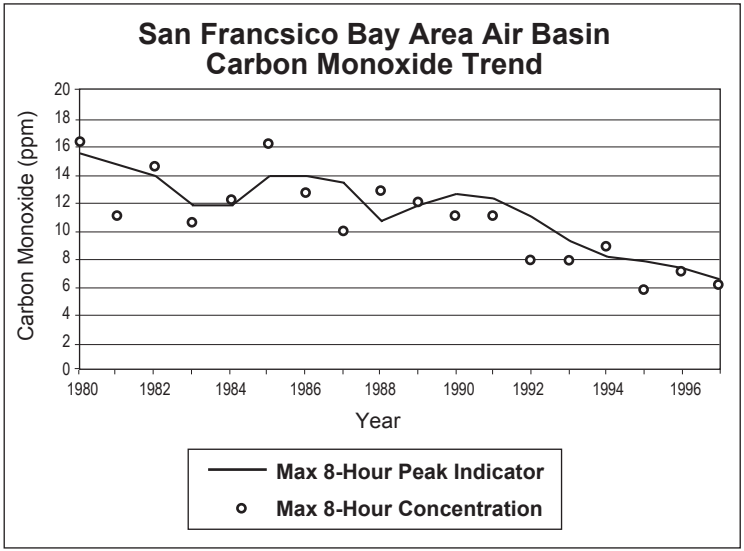

Figure 4-20

San Francisco Bay Area Air Basin

Carbon Monoxide Air Quality Table

Carbon Monoxide (ppm)

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	15.5	14.8	13.9	11.9	11.9	13.9	14.0	13.4	10.7	11.8	12.6	12.4	11.1	9.3	8.1	7.8	7.4	6.5
Maximum 1-Hour Concentration	27.0	16.0	18.0	17.0	20.0	21.0	20.0	17.0	15.0	19.0	18.0	15.0	12.0	14.0	12.0	10.1	8.8	10.7
Maximum 8-Hour Concentration	16.4	11.0	14.5	10.6	12.1	16.1	12.6	10.0	12.8	12.0	11.0	11.0	7.8	7.9	8.8	5.8	7.0	6.1
Days Above State 8-Hour Standard	17	5	13	4	8	20	8	2	4	10	4	5	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	12	4	11	4	7	17	8	1	4	9	2	4	0	0	0	0	0	0

Table 4-16

San Joaquin Valley Air Basin
Introduction – Area Description

Figure 4-21

The San Joaquin Valley Air Basin occupies the southern two-thirds of California's Great Central Valley. The eight-county area comprises Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties and the western portion of Kern County. The San Joaquin Valley spreads across nearly 25,000 square miles. With few exceptions, the Valley is flat and unbroken, with most of the area below 400 feet elevation. The Valley floor slopes downward from east to west, and the San Joaquin River winds its way along the western side from south to north. Similar to other inland areas, the San Joaquin Valley has cool wet winters and hot dry summers. Generally, the temperature increases and rainfall decreases from north to south.

In contrast to other California areas, air quality in the San Joaquin Valley is not dominated by emissions from one large urban area. Instead, there are a number of moderately sized urban areas spread along the main axis of the Valley. This wide distribution of emissions complicates the challenge faced by air quality control agencies. Overall, about 9 percent of California's population lives in the San Joaquin Valley, and pollution sources in the region account for about 14 percent of the total statewide emissions.

San Joaquin Valley Air Basin
Emission Trends

Overall, the emission levels in the San Joaquin Valley Air Basin have been decreasing since 1985, with the exception of PM_{10} emissions. The decreases are predominantly due to motor vehicle controls and reductions in evaporative and fugitive emissions. On-road motor vehicles are the largest contributors to CO and NO_x emissions in the San Joaquin Valley. On-road motor vehicles, area-wide sources, and stationary sources are all significant contributors to ROG emissions. A significant portion of the stationary source ROG emissions are fugitive emissions from the extensive oil and gas production operations in the lower San Joaquin Valley. PM_{10} emissions are mostly fugitive dust from paved and unpaved roads and agricultural operations.

San Joaquin Valley Air Basin
Population and VMT

Compared to California's other urban areas, the population and number of vehicle miles traveled each day in the San Joaquin Valley Air Basin grew at a much faster rate during the 1980 to 1997 time period. The population increased more than 50 percent — from nearly 2 million in 1980 to over 3 million in 1997. During the same period, the daily VMT more than doubled — from about 40 million miles per day in 1980 to over 84 million miles per day in 1997. Because these growth rates are so much higher than the growth rates in other areas, there has not been the same level of air quality improvement in the San Joaquin Valley Air Basin, especially with respect to ozone.

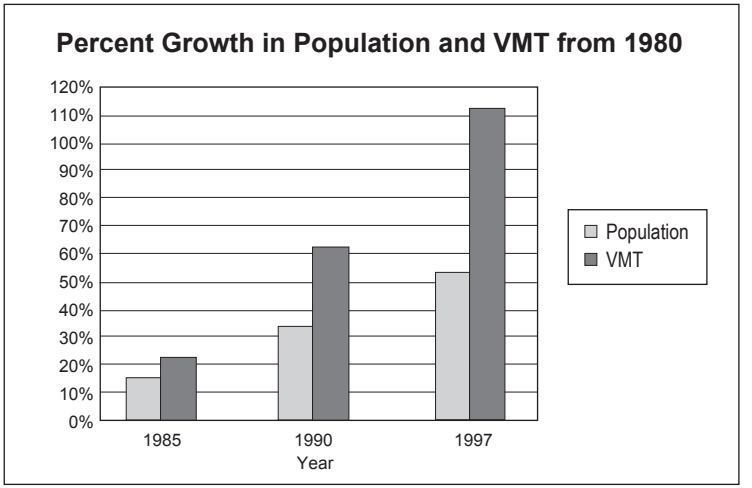

Figure 4-22

San Joaquin Valley Air Basin
Ozone Precursor Emission Trends

Emissions of the ozone precursors NO_x and ROG are decreasing in the San Joaquin Valley Air Basin. Both stationary source and motor vehicle NO_x emissions have been reduced by the adoption of more stringent emissions standards. Stricter standards have reduced ROG emissions from motor vehicles since 1985 even though vehicle miles traveled (VMT) have been increasing. Stationary and area-wide sources of ROG include petroleum production operations and the use of solvents. Stricter emissions standards and new controls have reduced the ROG emissions from these sources. Also, declining crude oil prices have resulted in cutbacks in oil production activities and an attendant decrease in ROG fugitive emissions.

NO_x Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**605**	**606**	**540**
Stationary Sources	241	218	192
Area-wide Sources	15	14	12
On-Road Mobile	264	287	254
Gasoline Vehicles	172	202	189
Diesel Vehicles	92	85	65
Other Mobile Sources	85	87	82

Table 4-17

ROG Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**876**	**615**	**489**
Stationary Sources	210	128	99
Area-wide Sources	340	206	161
On-Road Mobile	286	238	188
Gasoline Vehicles	276	228	180
Diesel Vehicles	10	10	8
Other Mobile Sources	40	43	41

Table 4-18

San Joaquin Valley Air Basin
Ozone Precursor Emission Trends

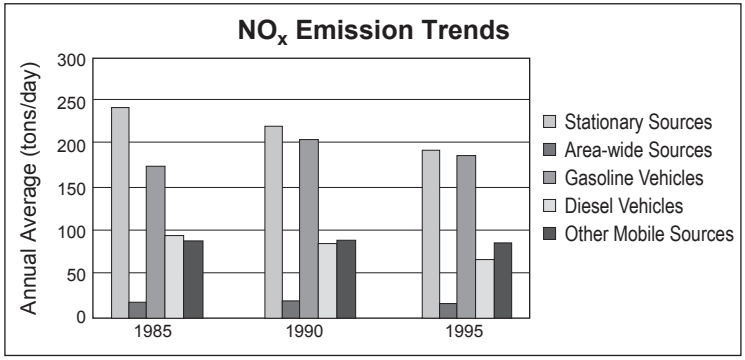

Figure 4-23

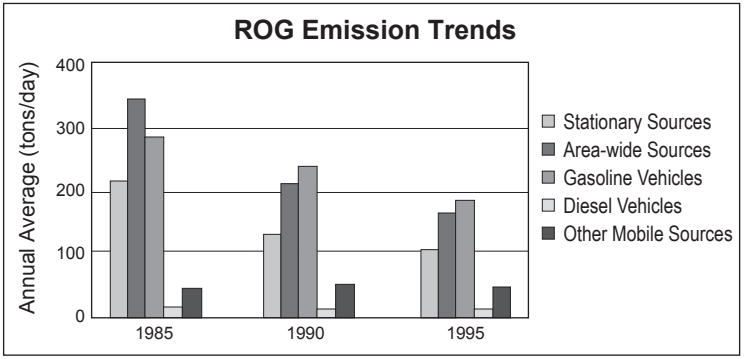

Figure 4-24

San Joaquin Valley Air Basin
Ozone Air Quality Trend

The San Joaquin Valley Air Basin has the second most severe ozone problem in the State. During 1980 through 1997, the maximum peak 1-hour indicator decreased slightly, on the order of 10 percent. The number of standard exceedance days has shown a comparable change. During 1980, there were 124 State standard exceedance days and 64 national standard exceedance days. This compares with 110 State standard exceedance days and 16 national standard exceedance days in 1997.

While air quality as related to ozone has improved throughout the State, the inland areas have generally shown less improvement than the coastal areas. This is due in part to the faster growth rates in the inland areas such as the San Joaquin Valley.

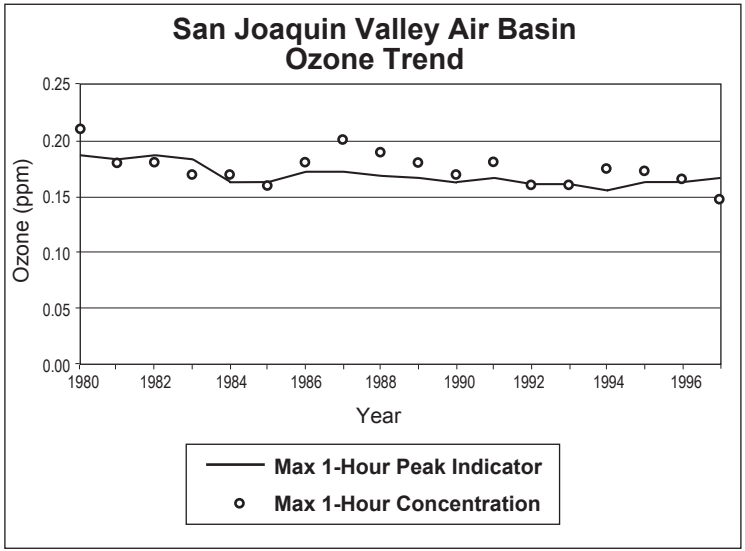

Figure 4-25

San Joaquin Valley Air Basin
Ozone Air Quality Table
Ozone (ppm)

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.188	0.183	0.187	0.184	0.164	0.163	0.172	0.172	0.169	0.168	0.164	0.167	0.162	0.162	0.156	0.163	0.164	0.167
National 1-Hour Design Value	0.180	0.180	0.170	0.170	0.160	0.160	0.170	0.170	0.170	0.170	0.160	0.160	0.160	0.160	0.160	0.165	0.165	0.164
National 8-Hour Design Value	0.125	0.128	0.124	0.110	0.116	0.115	0.125	0.126	0.120	0.120	0.119	0.119	0.110	0.118	0.118	0.124	0.127	0.116
Maximum 1-Hour Concentration	0.210	0.180	0.180	0.170	0.170	0.160	0.180	0.200	0.190	0.180	0.170	0.180	0.160	0.160	0.175	0.173	0.165	0.147
Maximum 8-Hour Concentration	0.141	0.149	0.134	0.123	0.136	0.132	0.135	0.150	0.128	0.136	0.124	0.130	0.121	0.125	0.129	0.134	0.137	0.127
Days Above State Standard	124	130	113	105	135	149	147	151	154	148	131	132	124	125	118	124	120	110
Days Above Nat. 1-Hour Standard	64	69	43	41	61	53	59	64	74	54	45	51	29	43	43	44	56	16

Table 4-19

San Joaquin Valley Air Basin
PM_{10} Emission Trends

Direct emissions of PM_{10} have increased slightly in the San Joaquin Valley Air Basin between 1985 and 1995. This increase has been due to growth in emissions from area-wide sources, primarily fugitive dust sources such as vehicle travel on unpaved and paved roads and agricultural operations. Emissions of directly emitted PM_{10} from motor vehicles have decreased between 1985 and 1995 due to new diesel standards.

PM_{10} Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**412**	**431**	**440**
Stationary Sources	26	27	28
Area-wide Sources	366	384	399
On-Road Mobile	13	12	9
Gasoline Vehicles	2	2	3
Diesel Vehicles	11	10	6
Other Mobile Sources	7	8	4

Table 4-20

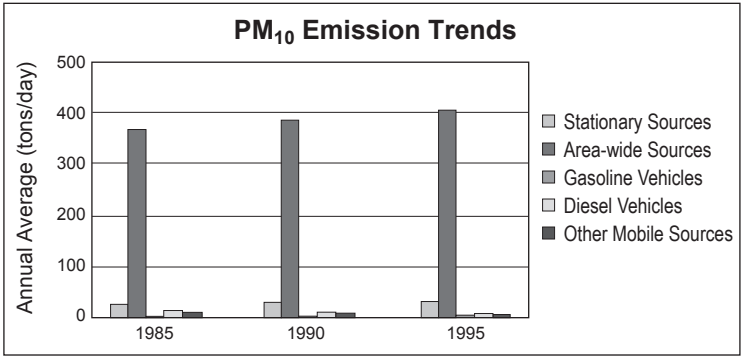

Figure 4-26

San Joaquin Valley Air Basin
PM_{10} Air Quality Trend

The available PM_{10} data show some variation during the eight-year period, but overall, there has been a downward trend. Part of the variation can be attributed to meteorology. Long periods of stagnation during the winter months allow PM_{10} to accumulate over many days with resulting high concentrations. The maximum annual geometric mean shows a decrease of about 34 percent from 1988 to 1997. The number of days exceeding the State and national 24-hour standards also shows a decrease. There were 68 State standard exceedance days and 27 national standard exceedance days during 1988. During 1997, there were 48 State standard exceedance days and 6 national standard exceedance days. While ambient PM_{10} concentrations appear to be declining, it will be a number of years before this area reaches attainment.

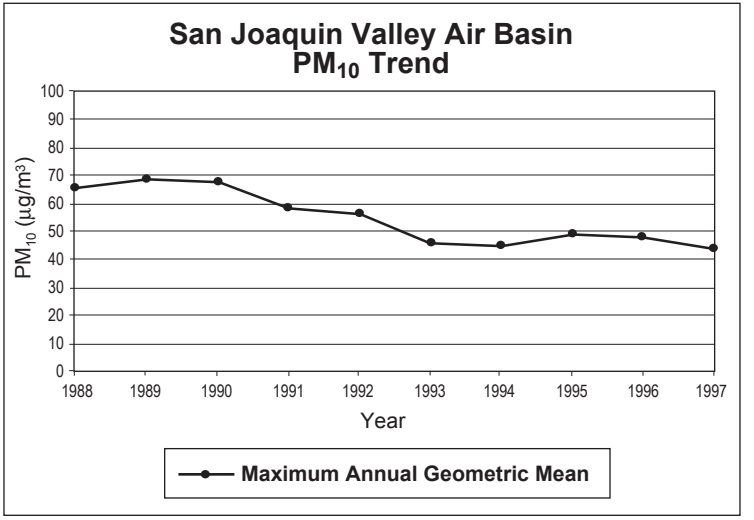

Figure 4-27

San Joaquin Valley Air Basin

PM_{10} Air Quality Table

PM_{10} (µg/m³)

PM_{10} (µg/m³)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									244	250	439	279	183	239	190	279	153	199
Maximum Annual Geometric Mean									65.4	68.4	67.8	58.1	55.6	45.3	44.3	48.9	47.6	43.1
Days Above State 24-Hour Standard									68	66	79	70	66	53	62	76	59	48
Calc. Days Above Nat. 24-Hour Std.									27	36	30	24	6	18	12	9	0	6

Table 4-21

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San Joaquin Valley Air Basin
Carbon Monoxide Emission Trends

Emissions of CO have decreased between 1985 and 1995. Motor vehicles are by far the largest source of CO emissions. Emissions from motor vehicles have been declining since 1985, despite increases in vehicle miles traveled (VMT), with the introduction of new automotive emission controls and fleet turnover.

CO Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**3070**	**2951**	**2480**
Stationary Sources	50	56	59
Area-wide Sources	249	282	294
On-Road Mobile	2460	2269	1775
Gasoline Vehicles	2424	2227	1737
Diesel Vehicles	36	42	38
Other Mobile Sources	311	344	352

Table 4-22

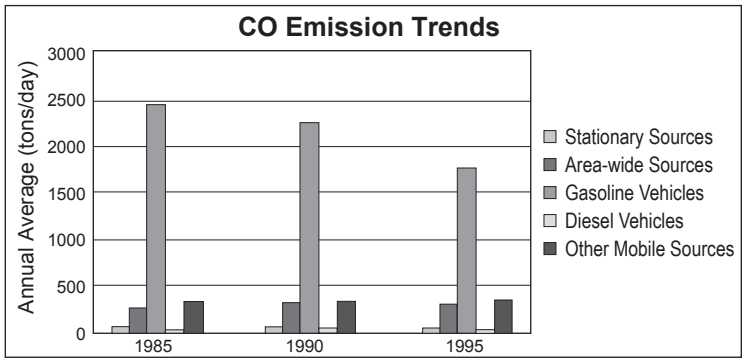

Figure 4-28

San Joaquin Valley Air Basin
Carbon Monoxide Air Quality Trend

Carbon monoxide concentrations show a fairly consistent downward trend from 1980 through 1997. Similar to other areas of the State, the trend line for the San Joaquin Valley Air Basin shows a slight increase during the late 1980s, probably related to meteorology. The maximum peak 8-hour indicator for 1997 is about half that of 1980. Measured concentrations in the San Joaquin Valley Air Basin have not exceeded the national standards since 1992, and concentrations no longer exceed the State standards. Much of the decline in ambient CO concentrations can be attributed to the introduction of clean fuels and newer, cleaner, motor vehicles.

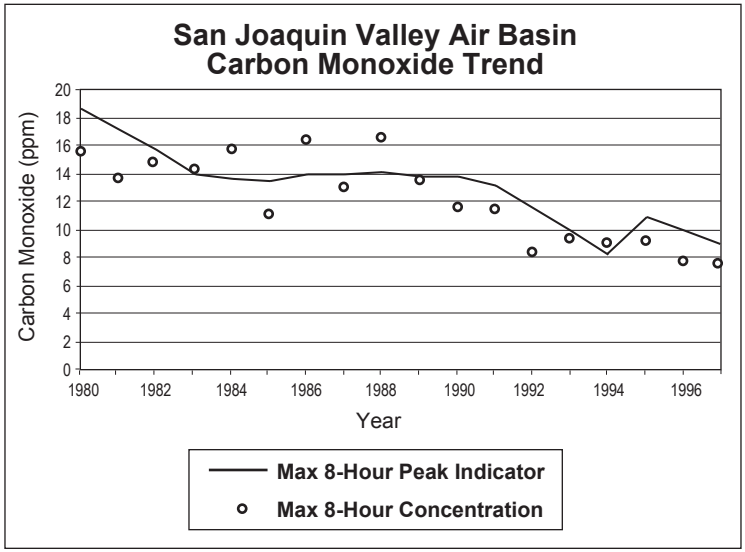

Figure 4-29

San Joaquin Valley Air Basin
Carbon Monoxide Air Quality Table
Carbon Monoxide (ppm)

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	18.6	17.2	15.7	13.9	13.6	13.4	13.9	13.9	14.1	13.7	13.7	13.2	11.5	10.0	8.3	10.9	9.9	9.0
Maximum 1-Hour Concentration	24.0	18.0	18.0	17.0	24.0	18.0	21.0	16.0	19.0	23.0	17.0	19.0	13.0	13.0	15.0	12.0	11.0	9.9
Maximum 8-Hour Concentration	15.5	13.6	14.8	14.3	15.7	11.0	16.3	12.9	16.5	13.4	11.5	11.4	8.3	9.3	8.9	9.1	7.7	7.5
Days Above State 8-Hour Standard	30	12	9	12	6	7	13	4	5	23	9	3	0	2	0	1	0	0
Days Above Nat. 8-Hour Standard	24	10	8	9	5	7	11	4	5	18	9	3	0	0	0	0	0	0

Table 4-23

San Diego Air Basin
Introduction – Area Description

Figure 4-30

The San Diego Air Basin lies in the southwest corner of California and comprises all of San Diego County. However, the population and emissions are concentrated mainly in the western portion of the County. The Basin covers a total of 4,260 square miles. It includes about 8 percent of the State's population and produces about the same percentage of the State's criteria pollutant emissions. Because of its southerly location and proximity to the ocean, much of the San Diego Air Basin experiences a relatively mild climate that is nearly winterless.

Air quality in the San Diego Air Basin is impacted not only by local emissions, but also by pollutants transported from other areas — in particular, ozone and ozone precursor emissions transported from the South Coast Air Basin. Although the impact of transport is particularly important on days with high ozone concentrations, transported emissions cannot be blamed entirely for the ozone problem in the San Diego area. Studies show that emissions from the San Diego Air Basin are sufficient, on their own, to cause violations of the ozone standards.

San Diego Air Basin
Emission Trends

Emissions of NO_x, ROG, PM_{10}, and CO in the San Diego Air Basin have been following the statewide trends since 1985. These trends are largely due to motor vehicle controls and reductions in evaporative emissions. Mobile sources (both on-road and other) are by far the largest contributors to NO_x, ROG, and CO emissions in the San Diego Air Basin.

San Diego Air Basin
Population and VMT

Growth rates in the San Diego Air Basin during the last seventeen years were among the highest in the State's urban areas. The population increased 48 percent — from about 1.9 million in 1980 to over 2.7 million in 1997. During this same time period, the number of vehicle miles traveled each day increased nearly 89 percent — from about 37 million miles per day to more than 69 million miles per day. As in other parts of California, overall air quality in the San Diego Air Basin has improved, despite high growth rates, indicating the benefits of cleaner technologies.

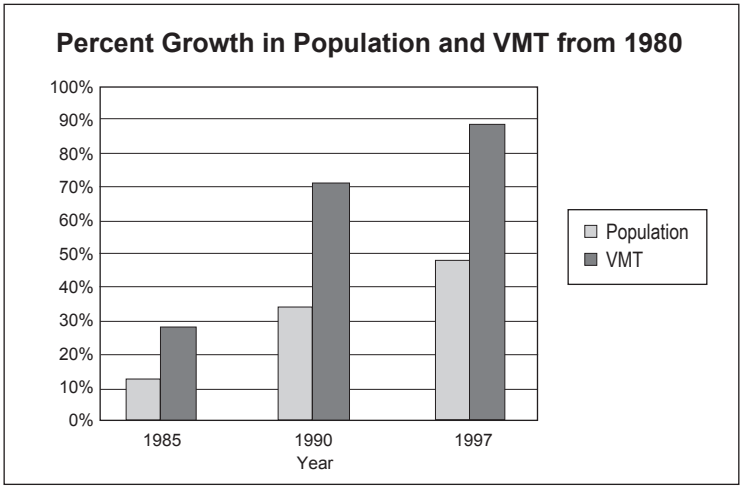

Figure 4-31

San Diego Air Basin
Ozone Precursor Emission Trends

Emissions of the ozone precursor NO_x have remained relatively flat from 1985 to 1995. ROG emissions have been steadily decreasing since 1985. These decreases are mostly due to decreased emissions from motor vehicles, brought about by stricter motor vehicle emissions standards. Stationary and area-wide source emissions of ROG have remained mostly unchanged over the last 20 years, with stricter emissions standards offsetting industrial and population growth.

NO_x Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**239**	**271**	**238**
Stationary Sources	16	16	16
Area-wide Sources	5	5	5
On-Road Mobile	186	215	182
Gasoline Vehicles	152	168	143
Diesel Vehicles	34	47	39
Other Mobile Sources	32	35	35

Table 4-24

ROG Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**350**	**323**	**278**
Stationary Sources	45	47	52
Area-wide Sources	42	45	49
On-Road Mobile	247	212	155
Gasoline Vehicles	243	206	150
Diesel Vehicles	4	6	5
Other Mobile Sources	16	19	22

Table 4-25

San Diego Air Basin
Ozone Precursor Emission Trends

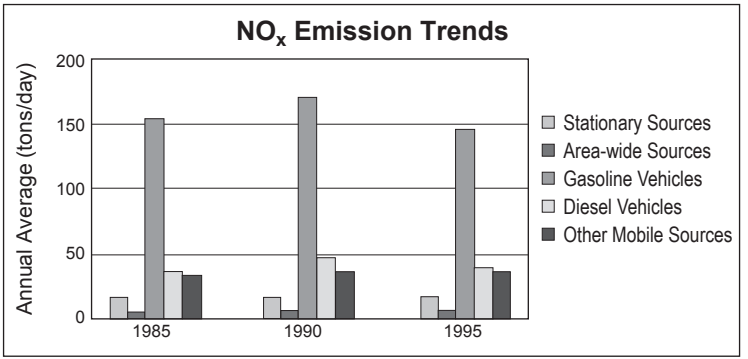

Figure 4-32

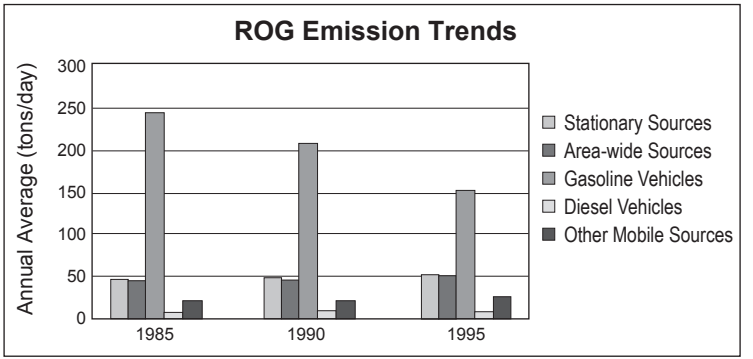

Figure 4-33

San Diego Air Basin
Ozone Air Quality Trend

Both the peak indicator and the number of days above the State and national ozone standards have decreased over the last 17 years. The peak 1-hour ozone indicator shows an overall decline of nearly 44 percent from 1980 to 1997. The number of State and national standard exceedance days has dropped even more. During 1980, there were 168 State standard exceedance days and 88 national standard exceedance days. During 1997, there were 43 State standard exceedance days and 1 national standard exceedance day. These drops represent decreases of about 74 percent and 99 percent, respectively. It is clear that additional local emission controls will be needed to reach attainment in the San Diego area. However, because of transport, future air quality in this area will also be affected by emission controls and growth in the South Coast Air Basin and, to some extent, Mexico.

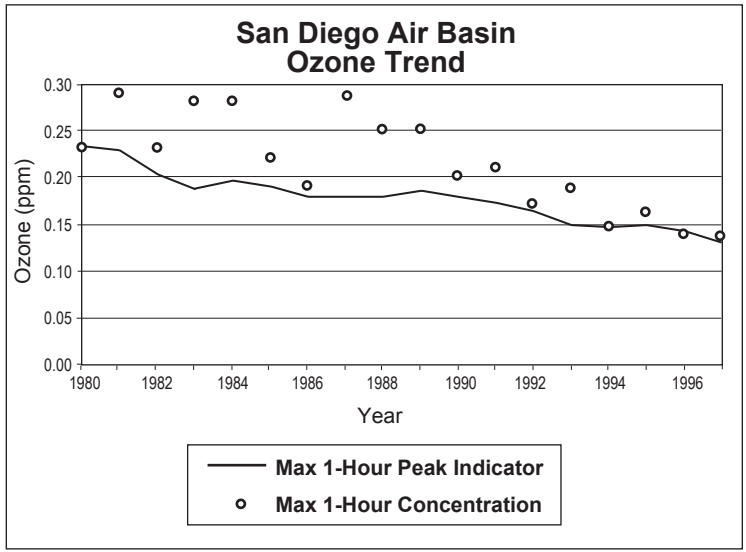

Figure 4-34

San Diego Air Basin
Ozone Air Quality Table
Ozone (ppm)

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.234	0.228	0.203	0.188	0.197	0.189	0.179	0.179	0.179	0.186	0.180	0.172	0.164	0.150	0.147	0.148	0.142	0.132
National 1-Hour Design Value	0.350	0.290	0.210	0.200	0.200	0.210	0.190	0.180	0.180	0.190	0.190	0.170	0.170	0.154	0.150	0.146	0.141	0.138
National 8-Hour Design Value	0.159	0.134	0.120	0.139	0.123	0.138	0.123	0.119	0.129	0.139	0.129	0.116	0.110	0.113	0.108	0.108	0.100	0.094
Maximum 1-Hour Concentration	0.230	0.290	0.230	0.280	0.280	0.220	0.190	0.290	0.250	0.250	0.200	0.210	0.170	0.187	0.147	0.162	0.138	0.136
Maximum 8-Hour Concentration	0.174	0.206	0.163	0.176	0.208	0.169	0.144	0.196	0.156	0.194	0.145	0.145	0.134	0.154	0.122	0.123	0.118	0.112
Days Above State Standard	168	192	120	125	146	148	131	127	160	159	139	106	97	90	79	96	51	43
Days Above Nat. 1-Hour Standard	88	78	47	61	51	50	42	40	45	56	39	27	19	14	9	12	2	1

Table 4-26

San Diego Air Basin
PM_{10} Emission Trends

Direct emissions of PM_{10} have increased by 25 percent in the San Diego Air Basin between 1985 and 1995. This increase was due to growth in emissions from area-wide sources, primarily fugitive dust sources, including vehicle travel on unpaved and paved roads, and construction and demolition operations.

PM_{10} Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**79**	**94**	**99**
Stationary Sources	6	7	7
Area-wide Sources	64	78	85
On-Road Mobile	7	7	5
Gasoline Vehicles	3	2	2
Diesel Vehicles	4	5	3
Other Mobile Sources	2	2	2

Table 4-27

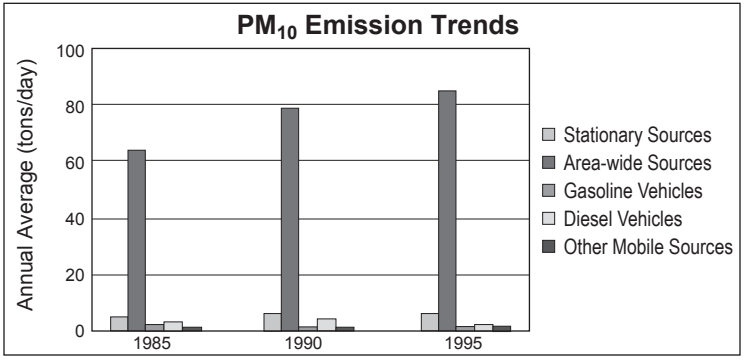

Figure 4-35

San Diego Air Basin
PM_{10} Air Quality Trend

PM_{10} concentrations in the San Diego Air Basin have changed little during the years for which reliable data are available. The maximum annual geometric mean for 1997 is actually higher than it was during 1980, because of monitoring at a new site. The maximum annual geometric mean still exceeds the State annual PM_{10} standard. The 24-hour concentrations also exceed the State 24-hour standard; however, they are well below the level of the national standard. During 1988, there were 18 State standard exceedance days, compared with 22 during 1997. The year-to-year variability in the 24-hour statistics is a reflection of both meteorology and the 1-in-6-day sampling schedule. Although ambient PM_{10} concentrations in the San Diego Air Basin are not as high as in some other areas of the State, they still exceed the State standards. As a result, additional emission controls will be needed to bring this area into attainment.

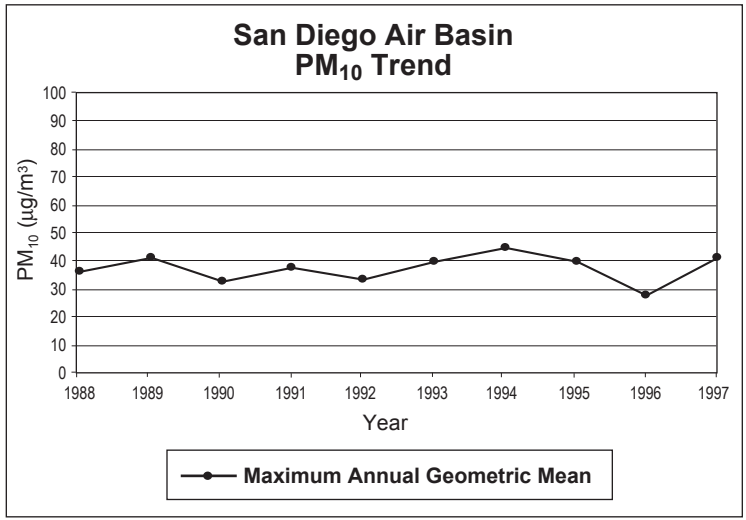

Figure 4-36

San Diego Air Basin

PM_{10} Air Quality Table

PM_{10} (µg/m³)

PM_{10} (µg/m³)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									81	90	115	81	67	159	129	121	93	125
Maximum Annual Geometric Mean									36.8	41.3	33.4	38.0	33.5	40.0	45.2	39.8	28.4	41.9
Days Above State 24-Hour Standard									18	28	11	20	7	27	25	23	16	22
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	6	0	0	0	0

Table 4-28

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San Diego Air Basin
Carbon Monoxide Emission Trends

CO emissions in the San Diego Air Basin follow the statewide trend of decreasing from 1985 to 1995 even though motor vehicle miles traveled are increasing. Once again, the adoption of more stringent motor vehicle controls has had a positive impact on CO emissions.

CO Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**2264**	**2190**	**1711**
Stationary Sources	12	13	14
Area-wide Sources	62	69	73
On-Road Mobile	2070	1968	1452
Gasoline Vehicles	2055	1941	1426
Diesel Vehicles	15	27	26
Other Mobile Sources	120	140	172

Table 4-29

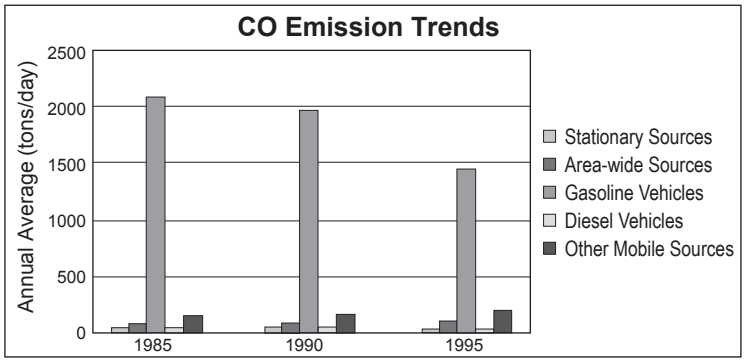

Figure 4-37

San Diego Air Basin
Carbon Monoxide Air Quality Trend

Peak 8-hour carbon monoxide concentrations in the San Diego Air Basin decreased substantially over the trend period — a 44 percent decrease from 1980 to 1997. As a result of these decreases, the national CO standards have not been exceeded in the San Diego Air Basin since 1989. The last exceedance of the State standards occurred during 1990.

With existing and anticipated motor vehicle and clean fuels regulations, ambient CO concentrations should continue to decline. This should be sufficient to maintain a healthful level of carbon monoxide in this area.

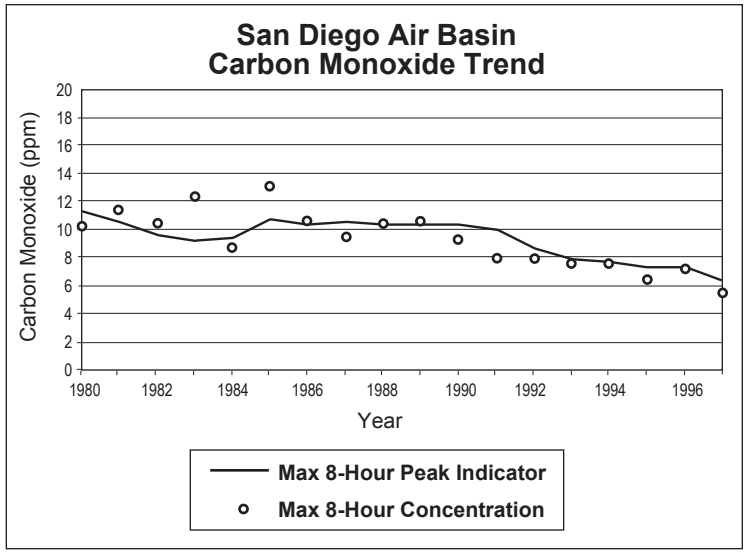

Figure 4-38

San Diego Air Basin

Carbon Monoxide Air Quality Table

Carbon Monoxide (ppm)

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	11.3	10.5	9.5	9.2	9.4	10.6	10.2	10.4	10.2	10.3	10.2	10.0	8.5	7.8	7.7	7.3	7.3	6.3
Maximum 1-Hour Concentration	15.0	15.0	15.0	16.0	16.0	17.0	16.0	14.0	17.0	17.0	18.0	14.0	14.0	11.4	11.0	9.9	12.4	9.3
Maximum 8-Hour Concentration	10.1	11.3	10.3	12.1	8.5	13.0	10.4	9.4	10.3	10.5	9.1	7.9	7.9	7.5	7.5	6.3	7.1	5.3
Days Above State 8-Hour Standard	1	1	1	1	0	5	2	1	5	6	1	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	1	1	1	1	0	3	1	0	2	5	0	0	0	0	0	0	0	0

Table 4-30

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San Diego Air Basin
Oxides of Nitrogen Emission Trends

NO_x (and nitrogen dioxide) emissions in the San Diego Air Basin follow the statewide trend of declining between 1990 and 1995. The continued adoption of more stringent motor vehicle and stationary source emissions standards should continue to reduce NO_x emissions.

NO_x Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**239**	**271**	**238**
Stationary Sources	16	16	16
Area-wide Sources	5	5	5
On-Road Mobile	186	215	182
Gasoline Vehicles	152	168	143
Diesel Vehicles	34	47	39
Other Mobile Sources	32	35	35

Table 4-31

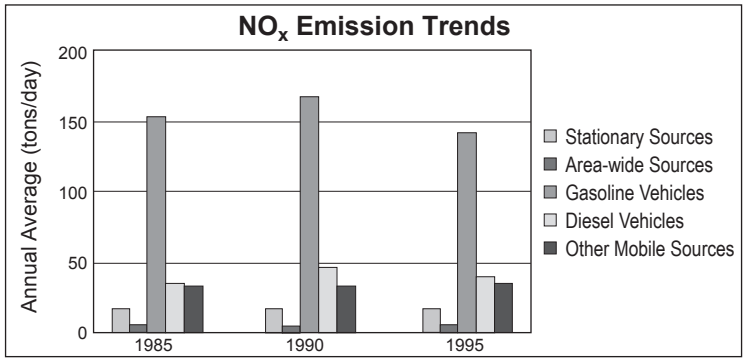

Figure 4-39

San Diego Air Basin
Nitrogen Dioxide Air Quality Trend

In the past, the San Diego Air Basin had a nitrogen dioxide problem. Maximum 1-hour concentrations during the 1980s occasionally exceeded the ambient air quality standards. However, data show that the maximum peak 1-hour indicator decreased 46 percent from 1980 to 1997. Ambient concentrations are now well below the levels of both the State and national standards, and the San Diego Air Basin is in attainment for these standards.

Because oxides of nitrogen (NO_x) emissions contribute to ozone, as well as to nitrogen dioxide, many of the ozone control measures help reduce ambient NO_2 concentrations. Furthermore, NO_x emission controls are a critical part of the ozone control strategy, and are not expected to be relaxed in the future. As a result, these controls should assure continued attainment.

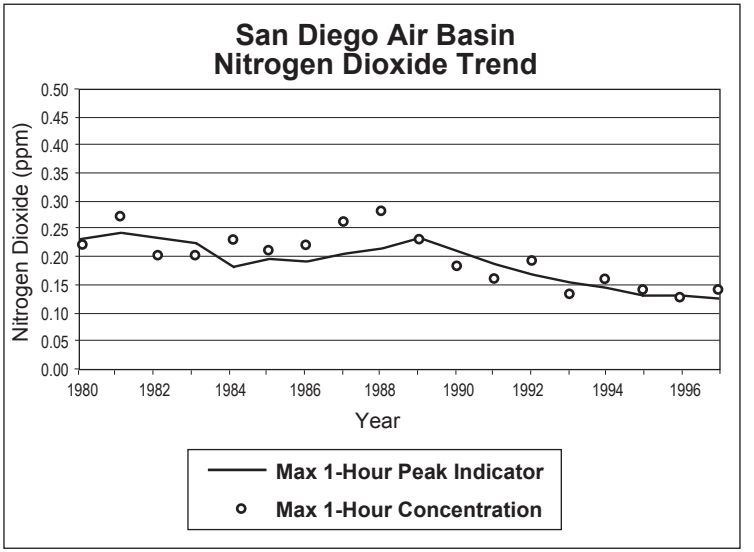

Figure 4-40

San Diego Air Basin

Nitrogen Dioxide Air Quality Table

Nitrogen Dioxide (ppm)

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.233	0.245	0.234	0.225	0.183	0.194	0.193	0.204	0.217	0.233	0.211	0.189	0.169	0.155	0.146	0.130	0.129	0.126
Maximum 1-Hour Concentration	0.220	0.270	0.200	0.200	0.230	0.210	0.220	0.260	0.280	0.230	0.180	0.160	0.190	0.130	0.157	0.140	0.124	0.142
Maximum Annual Average	0.035	0.043	0.030	0.027	0.031	0.032	0.034	0.032	0.035	0.038	0.029	0.029	0.027	0.023	0.024	0.026	0.022	0.024

Table 4-32

Sacramento Valley Air Basin
Introduction – Area Description

Figure 4-41

The Sacramento Valley Air Basin is home to California's State capital. Located in the northern portion of the Great Central Valley, the Sacramento Valley Air Basin includes Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties, the western urbanized portion of Placer County, and the eastern portion of Solano County. The Sacramento Valley Air Basin occupies 15,040 square miles and has a population of more than two million people. Because of its inland location, the climate of the Sacramento Valley Air Basin is more extreme than the climate in the San Francisco Bay Area Air Basin or South Coast Air Basin. The winters are generally wet and cool, while the summers are hot and dry.

Emissions from the Sacramento metropolitan area dominate the emission inventory for the Sacramento Valley Air Basin, and on-road motor vehicles are the primary source of emissions in the metropolitan area. While pollutant concentrations have generally declined over the years, additional regulations will be needed to attain the State and national ambient air quality standards.

Sacramento Valley Air Basin
Emission Trends

The emissions levels in the Sacramento Valley Air Basin have been trending downward over the last five years, with the exception of PM_{10} emissions. The decreases in NO_x, ROG, and CO are largely due to motor vehicle controls and reductions in evaporative emissions. On-road motor vehicles are by far the largest contributors to NO_x, ROG, and CO emissions in the Sacramento Valley. PM_{10} emissions sources include fugitive dust sources such as vehicle travel on paved and unpaved roads.

Sacramento Valley Air Basin
Population and VMT

Between 1980 and 1997, population in the Sacramento Valley Air Basin grew at a higher rate than the statewide average — a 45 percent increase compared with a 39 percent increase statewide. Meanwhile, the increase in the number of vehicle miles traveled each day was also higher than the overall statewide value — an 86 percent increase in the Sacramento Valley Air Basin compared with a 78 percent increase statewide. While the actual population and VMT totals for the Sacramento Valley Air Basin are much smaller than those for the South Coast Air Basin and San Francisco Bay Area Air Basin, they are important because motor vehicles are a significant source of emissions in the Sacramento Valley Air Basin.

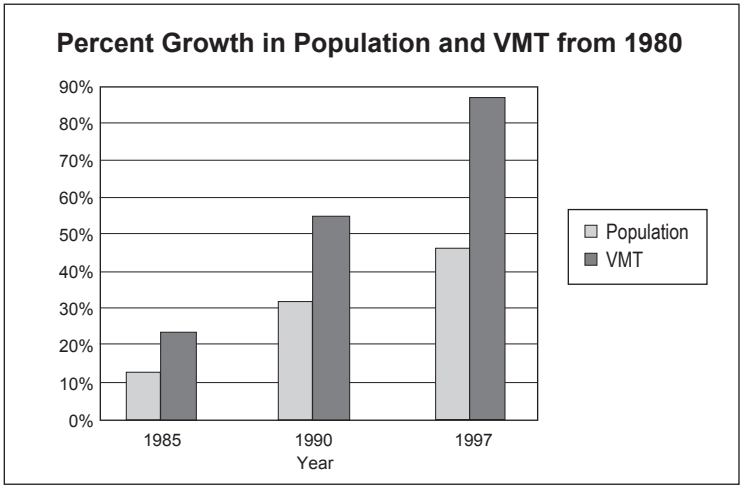

Figure 4-42

Sacramento Valley Air Basin
Ozone Precursor Emission Trends

Emissions of NO_x have decreased since 1990. On-road motor vehicles are by far the largest contributor to NO_x emissions, with other mobile sources following. ROG emissions have been decreasing for the last fifteen years due to more stringent motor vehicle standards and new rules for control of ROG from various industrial coating and solvent operations.

NO_x Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**270**	**294**	**266**
Stationary Sources	23	24	27
Area-wide Sources	6	6	7
On-Road Mobile	190	208	175
Gasoline Vehicles	138	147	129
Diesel Vehicles	52	61	46
Other Mobile Sources	51	56	57

Table 4-33

ROG Emission Trends (tons/day, annual average)

Emission Source	1985	1990	1995
All Sources	**376**	**351**	**308**
Stationary Sources	45	48	50
Area-wide Sources	74	78	82
On-Road Mobile	234	198	145
Gasoline Vehicles	228	190	140
Diesel Vehicles	6	8	6
Other Mobile Sources	23	27	30

Table 4-34

Sacramento Valley Air Basin
Ozone Precursor Emission Trends

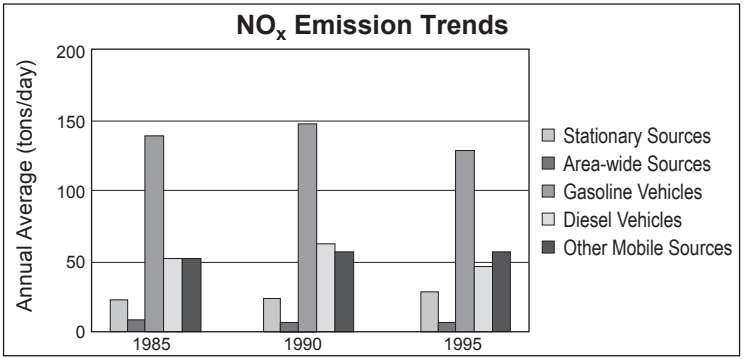

Figure 4-43

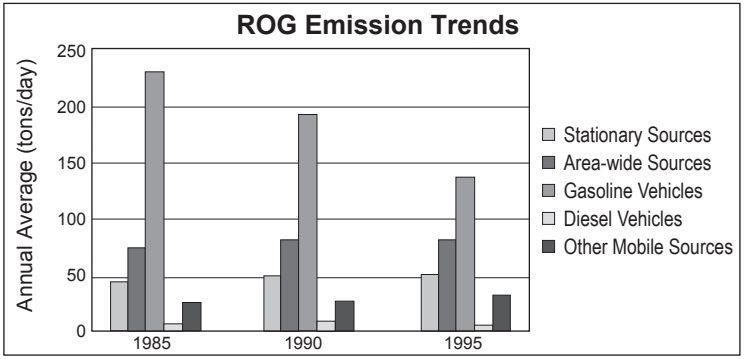

Figure 4-44

Sacramento Valley Air Basin
Ozone Air Quality Trend

Peak ozone values in the Sacramento Valley Air Basin have not declined as quickly over the last several years as have ozone concentrations in other urban areas. The maximum peak values remained fairly constant during most of the 1980s. Since 1988, the peak values have decreased slightly, and the overall decline for the 17-year period is about 22 percent. Looking at the number of days above the State and national standards, the trend is much more variable. However, the number of exceedance days has generally declined since 1988. The number of exceedance days increased slightly during the mid-1990s. However, this upswing may be due more to meteorology than actual emission increases. Based on the data, it is apparent that additional emission controls will be needed to bring the area into attainment for the State and national standards.

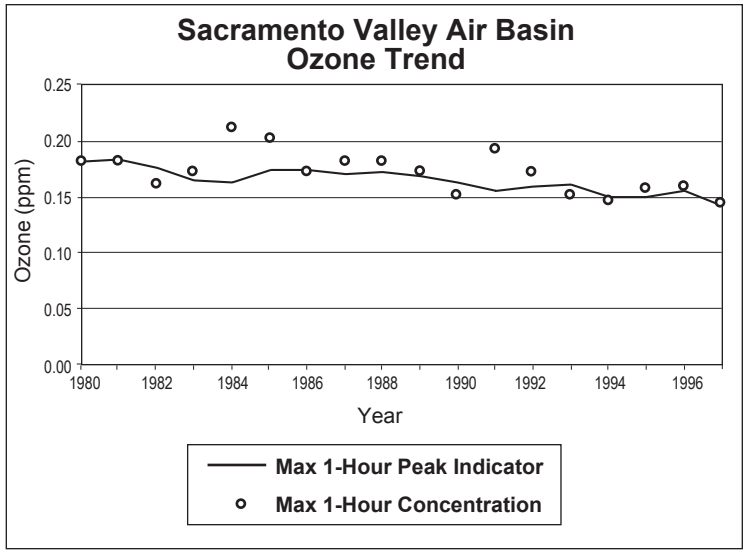

Figure 4-45

Sacramento Valley Air Basin
Ozone Air Quality Table
Ozone (ppm)

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.180	0.181	0.175	0.163	0.162	0.173	0.173	0.168	0.170	0.166	0.162	0.153	0.158	0.159	0.148	0.149	0.154	0.141
National 1-Hour Design Value	0.190	0.170	0.160	0.160	0.180	0.180	0.180	0.160	0.160	0.160	0.160	0.150	0.150	0.150	0.143	0.145	0.145	0.133
National 8-Hour Design Value	0.115	0.120	0.116	0.113	0.124	0.126	0.113	0.113	0.125	0.105	0.118	0.123	0.111	0.104	0.106	0.112	0.104	0.091
Maximum 1-Hour Concentration	0.180	0.180	0.160	0.170	0.210	0.200	0.170	0.180	0.180	0.170	0.150	0.190	0.170	0.150	0.145	0.156	0.157	0.143
Maximum 8-Hour Concentration	0.133	0.143	0.133	0.125	0.138	0.161	0.125	0.128	0.130	0.134	0.128	0.140	0.123	0.120	0.122	0.129	0.126	0.108
Days Above State Standard	73	78	66	62	64	59	66	94	98	67	50	68	74	34	60	50	58	25
Days Above Nat. 1-Hour Standard	19	22	17	15	23	19	24	24	35	8	16	14	14	7	9	11	9	3

Table 4-35

Sacramento Valley Air Basin
PM_{10} Emission Trends

Direct emissions of PM_{10} have increased in the Sacramento Valley Air Basin between 1985 and 1995. This increase was due to growth in emissions from area-wide sources, primarily fugitive dust sources. Emissions of directly emitted PM_{10} from mobile sources and stationary sources have remained relatively steady.

PM_{10} Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**195**	**222**	**236**
Stationary Sources	11	12	13
Area-wide Sources	172	198	214
On-Road Mobile	9	9	6
Gasoline Vehicles	1	2	2
Diesel Vehicles	8	7	4
Other Mobile Sources	3	3	3

Table 4-36

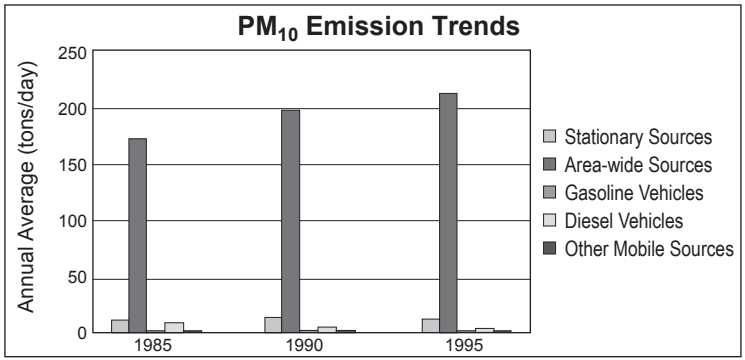

Figure 4-46

Sacramento Valley Air Basin
PM_{10} Air Quality Trend

The maximum annual geometric mean PM_{10} concentrations in the Sacramento Valley Air Basin show a fairly steady decline over the trend period. The maximum annual geometric mean shows a decrease of about 31 percent from 1988 to 1997, when the value was below the level of the State annual standard. The number of exceedance days also decreased. During 1988, there were 33 State standard exceedance days, compared with 11 days during 1997. The national 24-hour PM_{10} standard has not been exceeded since 1987. PM_{10} data for the Sacramento Valley area exhibit a pattern that is typical of many areas in California, where the 24-hour PM_{10} standards are usually achieved before the annual standards. Because many of the sources that contribute to ozone also contribute to PM_{10}, future ozone emission controls should improve PM_{10} air quality.

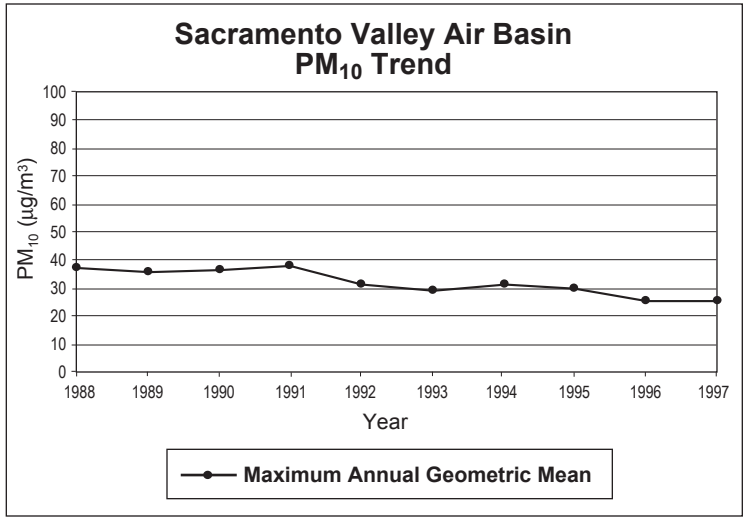

Figure 4-47

Sacramento Valley Air Basin

PM_{10} Air Quality Table

PM_{10} (µg/m³)

PM_{10} (µg/m³)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									115	139	153	136	111	118	154	145	98	126
Maximum Annual Geometric Mean									36.7	35.6	36.0	37.7	31.4	28.8	31.1	29.5	25.5	25.3
Days Above State 24-Hour Standard									33	25	42	49	37	26	24	36	28	11
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

Table 4-37

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Sacramento Valley Air Basin
Carbon Monoxide Emission Trends

Emissions of CO have been declining in the Sacramento Valley Air Basin. Motor vehicles are the largest source of CO emissions. With the introduction of new automotive emission controls, emissions from motor vehicles have been declining since 1985, despite increases in vehicle miles traveled.

CO Emission Trends (tons/day, annual average)			
Emission Source	**1985**	**1990**	**1995**
All Sources	**2399**	**2382**	**1957**
Stationary Sources	24	28	30
Area-wide Sources	329	390	409
On-Road Mobile	1875	1765	1291
Gasoline Vehicles	1854	1734	1262
Diesel Vehicles	21	31	29
Other Mobile Sources	171	199	227

Table 4-38

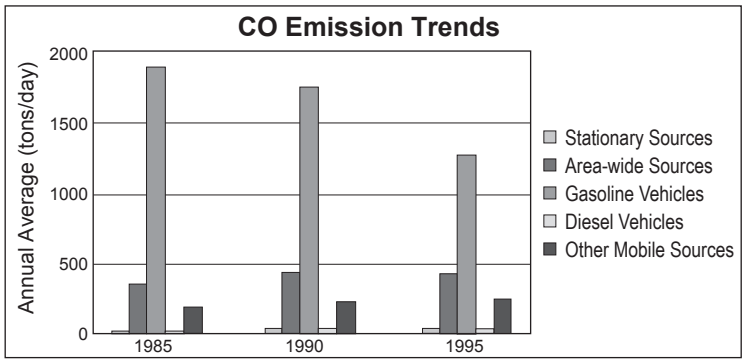

Figure 4-48

Sacramento Valley Air Basin
Carbon Monoxide Air Quality Trend

The maximum peak 8-hour carbon monoxide trend for the Sacramento Valley Air Basin was relatively flat from 1981 to 1991, with some year-to-year variability that was probably caused by meteorology. Since 1991, concentrations have decreased substantially. The 1997 value was about 48 percent lower than the 1991 value. The number of days above the State and national standards is even more variable. However, these indicators also show an overall downward trend. The national CO standards have not been exceeded since 1991, and the State standards were last exceeded in 1993. Much of the decline in ambient carbon monoxide concentrations is attributable to the introduction of Cleaner Burning Gasoline and newer, cleaner motor vehicles. These controls will help keep the area in attainment for both the State and national CO standards.

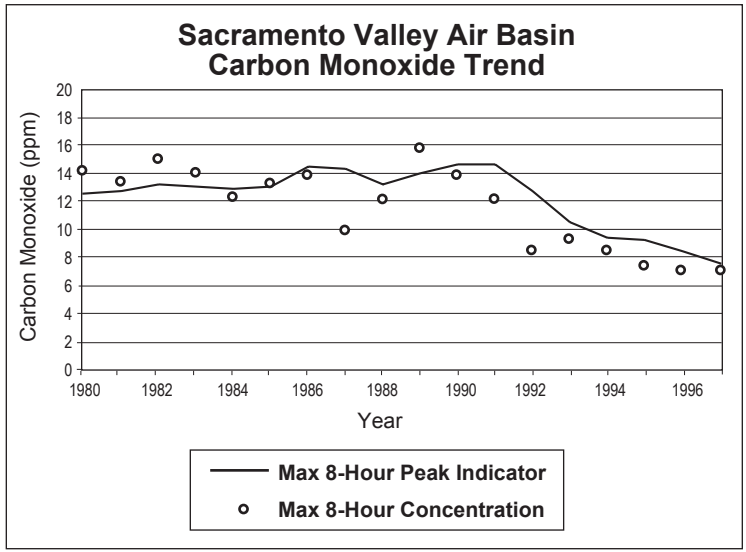

Figure 4-49

Sacramento Valley Air Basin

Carbon Monoxide Air Quality Table

Carbon Monoxide (ppm)

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	12.7	12.9	13.4	13.2	13.0	13.1	14.6	14.4	13.4	14.1	14.7	14.8	12.9	10.7	9.6	9.3	8.5	7.7
Maximum 1-Hour Concentration	18.0	17.0	17.0	19.0	18.0	17.0	20.0	15.0	17.0	18.0	17.0	15.0	14.0	12.0	10.8	9.8	8.7	9.5
Maximum 8-Hour Concentration	14.3	13.5	15.1	14.1	12.4	13.3	13.9	10.0	12.3	15.9	14.0	12.3	8.6	9.4	8.5	7.4	7.2	7.2
Days Above State 8-Hour Standard	10	7	11	6	6	12	12	4	11	19	14	8	0	2	0	0	0	0
Days Above Nat. 8-Hour Standard	9	7	10	3	5	11	11	3	9	18	12	6	0	0	0	0	0	0

Table 4-39

Chapter 5

Emissions and Air Quality Tables for County Portions of Air Basins

Introduction

This chapter contains emissions and air quality trend data for each of California's 15 air basins. Section B contains the emission data summarized by county or county portion within the air basin. Emission data are included for the ozone precursors ROG and NO_x, and also for directly emitted PM_{10} and CO. The values represent the total tons of pollutant emissions per average day, listed every five years, from 1985 to 1995. In addition to these data, tables listing the highest emitting facilities for each of these pollutants by air basin are also included. The lists of high emitting facilities consist of only the top ten facilities exceeding 100 tons per day. The emission totals are from calendar year 1995. Some facilities may have reduced or increased emissions since 1995, and these changes will be reflected in subsequent almanacs. Also, the lists do not include military bases, landfills, or airports.

Section C contains the air quality trend statistics and is also organized alphabetically by air basin. The time period covered is 1980 through 1997 for ozone, CO, NO_2, and SO_2 and 1988 through 1997 for PM_{10}. In some areas, no monitoring data are available or the data are incomplete. Tables for these areas are included for completeness, but the lack of data is noted on the tables.

Air quality statistics can fluctuate from year-to-year because of the influence of meteorology. However, the statistics can also vary because of a change in monitoring site. The statistics listed in Section C reflect the highest value for the statistic at any site in the area. As a result, the statistic may not reflect the same site during the entire period, because the monitoring sites can change from year-to-year. For example, the carbon monoxide concentrations in Imperial County in the Salton Sea Air Basin are below the levels of the State and national standards from 1980 through 1993. In 1994, however, the concentrations show a significant increase, and both the State and national standards are violated. The CO concentrations in this air basin did not suddenly increase during 1994. Instead, monitoring was implemented at a new site in Calexico, and the concentrations at the new site were higher than at the exisiting sites in the Salton Sea Air Basin. Information about the opening and closing of air quality monitoring sites is available on

the web at *www.arb.ca.gov/aqd/almanac/almanac99.htm*. This information is also available upon request from the Air Resources Board Planning and Technical Support Division.

Since the air quality statistics reflect the highest values in the area, the monitoring sites represented also may not be consistent among the various statistics during a particular year. For example, the monitoring site reflected in the maximum 1-hour ozone concentration may not be the same as the monitoring site reflected in the maximum 8-hour ozone concentration.

Emission Inventory

Great Basin Valleys Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alpine	1	1	1
Inyo[1]	7	7	6
Mono[1]	5	4	3

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alpine	2	1	2
Inyo[1]	8	7	5
Mono[1]	7	6	6

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alpine	1	1	2
Inyo[1]	20	25	26
Mono[1]	19	21	23

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alpine	7	7	8
Inyo[1]	59	54	43
Mono[1]	51	45	39

Table 5-1

1. These values do not reflect emissions from the Owens and Mono Lake beds.

Great Basin Valleys Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
California Energy Company Inc.	Coso Junction	165

Table 5-2

No ROG, PM_{10}, or CO High Emitting Facilities.

Lake County Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lake	6	6	6

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lake	12	11	11

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lake	9	9	10

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lake	83	82	79

Table 5-3

Lake County Air Basin

High Emitting Facilities

No NO_x, ROG, PM_{10}, or CO High Emitting Facilities.

Table 5-4

Lake Tahoe Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
El Dorado[1]	3	3	2
Placer[1]	1	1	1

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
El Dorado[1]	10	8	7
Placer[1]	3	3	3

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
El Dorado[1]	3	3	3
Placer[1]	2	2	1

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
El Dorado[1]	103	93	79
Placer[1]	33	31	27

Table 5-5

1. This Air Basin includes only a portion of this county.

Lake Tahoe Air Basin

High Emitting Facilities

No NO_x, ROG, PM_{10}, or CO High Emitting Facilities.

Table 5-6

Mojave Desert Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Kern[1]	42	43	31
Los Angeles[1]	17	21	19
Riverside[1]	2	3	3
San Bernardino[1]	177	163	163

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Kern[1]	30	25	18
Los Angeles[1]	17	21	19
Riverside[1]	2	2	2
San Bernardino[1]	47	63	53

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Kern[1]	47	49	45
Los Angeles[1]	17	24	26
Riverside[1]	3	4	3
San Bernardino[1]	66	75	234

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Kern[1]	158	115	72
Los Angeles[1]	107	138	95
Riverside[1]	14	17	15
San Bernardino[1]	303	459	324

Table 5-7

1. This Air Basin includes only a portion of this county.

Mojave Desert Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Southdown (Cement)	Apple Valley	4106
Riverside Cement Company	Oro Grande	3361
Cal Portland Cement Co.	Mojave	2246
North American Chemical	Trona	2158
PG&E Hinkley Compressor Station	Hinkley	1750
National Cement Co.	Lebec	1524
Southern California Gas Company	Needles	1361
Mitsubishi Cement	Lucerne Valley	1262
Southern California Gas Company	Newberry Springs	1091
Coolwater Generating Station	Daggett	849

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Coolwater Generating Station	Daggett	217
Riverside Cement Company	Oro Grande	127
North American Chemical	Trona	101

Table 5-8

Mojave Desert Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Southdown (Cement)	Apple Valley	931
North American Chemical	Trona	535
Mitsubishi Cement	Lucerne Valley	472
U.S. Borax	Boron	447
Riverside Cement Company	Oro Grande	251
National Cement Co.	Lebec	234
Molycorp, Union Oil	Mountain Pass	172
Cal Portland Cement Co.	Mojave	117

Table 5-8 (continued)

Mojave Desert Air Basin

High Emitting Facilities

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Mitsubishi Cement	Lucerne Valley	558
Coolwater Generating Station	Daggett	545
Cal Portland Cement Co.	Mojave	523
Calaveras Cement Co.	Monolith	438
Southdown (Cement)	Apple Valley	390
Southern California Gas Company	Newberry Springs	258
P G & E Hinkley - Compressor Stn.	Hinkley	229
Southern California Gas Company	Needles	217
North American Gas Company	Trona	206
Southern California Gas Company	Blythe	167

Table 5-8 (continued)

Mountain Counties Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Amador	5	7	9
Calaveras	3	4	4
El Dorado[1]	12	17	15
Mariposa	2	2	2
Nevada	13	14	11
Placer[1]	5	5	4
Plumas	7	8	8
Sierra	2	2	2
Tuolumne	6	8	8

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Amador	10	10	10
Calaveras	9	10	10
El Dorado[1]	19	22	19
Mariposa	5	5	5
Nevada	18	17	15
Placer[1]	4	4	4
Plumas	14	14	16
Sierra	3	3	5
Tuolumne	13	13	13

Table 5-9

1. This Air Basin includes only a portion of this county.

Mountain Counties Air Basin

Summary Emissions

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Amador	6	8	9
Calaveras	7	9	10
El Dorado[1]	11	14	15
Mariposa	5	6	7
Nevada	13	15	17
Placer[1]	4	5	7
Plumas	15	18	18
Sierra	8	10	11
Tuolumne	6	9	10

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Amador	50	61	58
Calaveras	58	64	64
El Dorado[1]	139	187	150
Mariposa	28	30	29
Nevada	136	140	111
Placer[1]	32	34	27
Plumas	108	125	132
Sierra	27	32	37
Tuolumne	88	98	94

Table 5-9 (continued)

1. This Air Basin includes only a portion of this county.

Mountain Counties Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Ampine (Wood Products)	Martell	268
Pacific-Ultrapower Chinese Station (Wood Products)	Jamestown	235
Sierra-Pacific Industries (Wood Products)	Quincy	187
Wheelabrator (Electric Services)	Martell	170
Sierra-Pacific Industries (Wood Products)	Loyalton	147
Sierra-Pacific Industries (Wood Products)	Standard	144
Jackson Valley Energy Partners (Petroleum Products)	Ione	142
Collins Pine Co. (Wood Products)	Chester	129

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Ampine (Wood Products)	Martell	415
Jackson Valley Energy Products (Petroleum Products)	Ione	267

Table 5-10

Mountain Counties Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Ampine (Wood Products)	Martell	680
Wheelabrator (Electric Services)	Martell	356
Jackson Valley Energy Partners (Petroleum Products)	Ione	185
Sierra-Pacific Industries (Wood Products)	Camino	184
Sierra-Pacific Industries (Wood Products)	Standard	178

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Sierra-Pacific Industries (Wood Products)	Camino	2564
Sierra-Pacific Industries (Wood Products)	Quincy	2293
Wheelabrator (Electric Services)	Martell	1252
Sierra-Pacific Industries (Wood Products)	Loyalton	848
Collins Pine Co. (Wood Products)	Chester	397
Sierra-Pacific Industries (Wood Products)	Standard	209

Table 5-10 (continued)

North Central Coast Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Monterey	73	73	57
San Benito	7	8	7
Santa Cruz	21	23	19

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Monterey	73	65	54
San Benito	6	6	5
Santa Cruz	40	37	29

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Monterey	37	39	39
San Benito	9	11	12
Santa Cruz	11	14	13

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Monterey	431	413	282
San Benito	41	43	31
Santa Cruz	226	217	142

Table 5-11

North Central Coast Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
P G & E	Moss Landing	4037
Lone Star Industrial Cement Plant	Davenport	949
National Refrac. & Mineral - Natividad (Lime)	Salinas	121

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Salz Leathers Inc. (Leather Tanning)	Santa Cruz	124
Mobil Oil, West Coast Pipeline	San Ardo	100

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Lone Star Industrial Cement Plant	Davenport	199
P G & E	Moss Landing	102

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Lone Star Industrial Cement Plant	Davenport	1760
P G & E	Moss Landing	1619

Table 5-12

North Coast Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Del Norte	4	5	4
Humboldt	26	28	23
Mendocino	18	19	16
Sonoma[1]	8	7	6
Trinity	3	3	3

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Del Norte	6	7	6
Humboldt	30	28	24
Mendocino	21	20	18
Sonoma[1]	11	12	10
Trinity	6	6	6

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Del Norte	7	9	9
Humboldt	23	24	21
Mendocino	15	18	19
Sonoma[1]	5	7	6
Trinity	12	16	17

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Del Norte	82	101	100
Humboldt	223	232	198
Mendocino	149	151	132
Sonoma[1]	79	75	64
Trinity	54	64	63

Table 5-13

1. This Air Basin includes only a portion of this county.

North Coast Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Louisiana-Pacific (Wood Products)	Samoa	506
P G & E - Humboldt Bay Plant	Eureka	410
The Pacific Lumber Company	Scotia	318
Louisiana-Pacific (Wood Products)	Arcata	206
Georgia Pacific (Wood Products)	Fort Bragg	169
Masonite Hardboard Division (Wood Products)	Ukiah	145
Fairhaven Power Company	Fairhaven	142
Ultrapower 3 (Electric Services)	Blue Lake	103

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Masonite Hardboard Div. (Wood Products)	Ukiah	123
The Pacific Lumber Co. (Wood Products)	Scotia	111

Table 5-14

North Coast Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Louisiana-Pacific (Wood Products)	Samoa	195
Masonite Hardboard Division (Wood Products)	Ukiah	195
Louisiana-Pacific (Wood Products)	Arcata	183
Georgia Pacific (Wood Products)	Fort Bragg	119

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Pacific Lumber Products (Wood Products)	Scotia	1184
Fairhaven Power Company	Fairhaven	1158
Georgia Pacific (Wood Products)	Fort Bragg	799
Ultrapower 3	Blue Lake	615
Masonite Hardboard Division (Wood Products)	Ukiah	390
Sierra-Pacific Industries (Wood Products)	Hayfork	170
Louisiana-Pacific Corp. (Wood Products)	Samoa	169
Louisiana-Pacific Corp. (Wood Products)	Arcata	143

Table 5-14 (continued)

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Northeast Plateau Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lassen	10	10	10
Modoc	5	5	5
Siskiyou	23	24	21

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lassen	13	12	13
Modoc	4	4	3
Siskiyou	24	25	25

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lassen	17	21	23
Modoc	16	18	18
Siskiyou	25	31	32

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Lassen	82	81	84
Modoc	31	29	25
Siskiyou	256	301	299

Table 5-15

Northeast Plateau Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
H.L. Power Company	Wendel	150

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Sierra Pacific Industries (Wood Products)	Susanville	1939
Big Valley Lumber Co. (Wood Products)	Bieber	780
Roseburg Forest Products (Wood Products)	Weed	123

Table 5-16

No ROG or PM_{10} High Emitting Facilities.

Sacramento Valley Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Butte	21	25	21
Colusa	10	14	12
Glenn	16	12	10
Placer[1]	22	27	26
Sacramento	94	101	94
Shasta	33	38	33
Solano[1]	15	17	14
Sutter	10	12	11
Tehama	18	20	17
Yolo	20	20	19
Yuba	9	9	9

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Butte	37	35	29
Colusa	14	12	11
Glenn	13	11	11
Placer[1]	27	29	28
Sacramento	152	138	122
Shasta	39	38	31
Solano[1]	22	21	18
Sutter	19	17	15
Tehama	14	13	11
Yolo	27	24	22
Yuba	14	13	11

Table 5-17

1. This Air Basin includes only a portion of this county.

Sacramento Valley Air Basin

Summary Emissions

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Butte	22	27	28
Colusa	20	22	24
Glenn	15	17	18
Placer[1]	9	12	13
Sacramento	35	39	43
Shasta	23	28	29
Solano[1]	8	10	10
Sutter	16	18	19
Tehama	11	14	14
Yolo	24	27	30
Yuba	8	8	9

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Butte	218	223	165
Colusa	104	101	89
Glenn	89	82	71
Placer[1]	184	210	191
Sacramento	936	865	734
Shasta	283	312	250
Solano[1]	110	126	86
Sutter	124	123	98
Tehama	97	104	76
Yolo	169	156	133
Yuba	84	81	64

Table 5-17 (continued)

1. This Air Basin includes only a portion of this county.

Sacramento Valley Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Calaveras Cement Company	Redding	559
Simpson Paper Company (Pulp Mill)	Anderson	377
Wheelabrator Energy (Electric Services)	Anderson	364
Spreckels Sugar Company	Woodland	275
Contadina Foods Inc.	Woodland	269
Louisiana Pacific Corporation (Wood Products)	Oroville	236
Procter & Gamble (Soaps and Detergents)	Sacramento	227
P G & E	Burney	220
LFC Power Systems Greenleaf #1 (Electric Services)	Yuba City	194
P G & E Delevan Compressor Station 16	Colusa	177

Table 5-18

Sacramento Valley Air Basin

High Emitting Facilities

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Formica Corporation (Laminated Plastics)	Rocklin	474
Western Insulfoam Corp. (Plastic Foam Products)	Dixon	191
Campbell Soup Company	Sacramento	173
Procter & Gamble (Soap and Detergents)	Sacramento	147
Santa Fe Pacific Pipelines (Petroleum Terminal)	Chico	140
Schuller International Inc. (Mineral Wool)	Willows	130
Sierrapine Ltd. Rocklin (Veneer and Plywood)	Rocklin	108
Reynolds Metal (Metal Cans)	Rocklin	103

Table 5-18 (continued)

Sacramento Valley Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Sierrapine Ltd. - Rocklin (Veneer and Plywood)	Rocklin	183
Calaveras Cement Company	Redding	146
Simpson Paper Company (Pulp Mill)	Anderson	115
Louisiana-Pacific Corporation (Wood Products)	Oroville	114

Table 5-18 (continued)

Sacramento Valley Air Basin

High Emitting Facilities

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Calaveras Cement Company	Redding	2187
Pacific Oroville Power, Inc. (Electric Services)	Oroville	1365
Sierra-Pacific Industries (Wood Products)	Burney	1183
Burney Forest Products (Wood Products)	Burney	747
Wheelabrator Energy (Electric Services)	Anderson	635
Burney Mountain Power (Electric Services)	Burney	420
P G & E Gerber Compressor Stn.	Red Bluff	326
Sierra-Pacific Industries (Wood Products)	Lincoln	322
Sierrapine Ltd. - Rocklin (Veneer and Plywood)	Rocklin	310
Wheelabrator Hudson Energy Co. (Electric Services)	Anderson	209

Table 5-18 (continued)

Salton Sea Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Imperial	34	36	39
Riverside[1]	33	41	38

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Imperial	32	31	29
Riverside[1]	31	33	29

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Imperial	154	171	152
Riverside[1]	43	47	39

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Imperial	170	173	158
Riverside[1]	183	224	196

Table 5-19

1. This Air Basin includes only a portion of this county.

Salton Sea Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Imperial Irrigation District (Electric Services)	El Centro	503
Hydra-Ca. Operations (Electric Services)	Imperial	179
American Girl Mine	Winterhaven	179
Holly Sugar Co. 3	Brawley	165
Chemglo, Inc. (Mining)	Winterhaven	144

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Gold Fields Co. Mesquite (Mining)	Brawley	379
American Girl Mine	Winterhaven	162
U.S. Gypsum	Plaster City	156

Table 5-20

No ROG or CO High Emitting Facilities.

San Diego Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Diego	238	271	238

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Diego	350	323	277

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Diego	80	94	100

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Diego	2265	2191	1712

Table 5-21

San Diego Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
SDG & E Co./South Bay Plant	Chula Vista	1172
SDG & E Co./Encina Plant	Carlsbad	1124
Children's Hospital	San Diego	199
Kelco-Div. Merck & Co. (Pharmaceuticals)	San Diego	174

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Kelco-Div Merck & Co. (Pharmaceuticals)	San Diego	1225
National Steel & Ship	San Diego	170

Table 5-22

San Diego Air Basin

High Emitting Facilities

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
SDG & E Co./Encina Plant	Carlsbad	416
SDG & E Co./South Bay Plant	Chula Vista	368
Sony Corp. of America (Audio/Video Equipment)	San Diego	181
Kelco-Div. Merck & Co. (Pharmaceuticals)	San Diego	104

Table 5-22 (continued)

No PM_{10} High Emitting Facilities.

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San Francisco Bay Area Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alameda	152	137	118
Contra Costa	173	153	138
Marin	24	23	20
Napa	9	9	9
San Francisco	51	49	43
San Mateo	70	69	62
Santa Clara	139	141	126
Solano[1]	40	40	34
Sonoma[1]	27	29	28

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alameda	197	154	118
Contra Costa	160	124	99
Marin	40	31	24
Napa	17	14	12
San Francisco	80	63	50
San Mateo	108	84	63
Santa Clara	227	173	133
Solano[1]	45	38	29
Sonoma[1]	48	39	31

Table 5-23

1. This Air Basin includes only a portion of this county.

San Francisco Bay Area Air Basin

Summary Emissions

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alameda	35	35	36
Contra Costa	33	33	33
Marin	8	9	10
Napa	4	4	4
San Francisco	15	16	17
San Mateo	22	22	23
Santa Clara	45	47	49
Solano[1]	9	10	10
Sonoma[1]	11	12	12

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Alameda	1113	986	776
Contra Costa	818	729	600
Marin	258	227	177
Napa	92	84	75
San Francisco	435	373	302
San Mateo	623	559	453
Santa Clara	1279	1132	913
Solano[1]	258	241	182
Sonoma[1]	276	262	231

Table 5-23 (continued)

1. This Air Basin includes only a portion of this county.

San Francisco Bay Area Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Shell Martinez Refining Company	Martinez	4447
Chevron Inc.	Richmond	3612
Tosco Corp. Avon Refinery	Martinez	3161
Exxon Corporation	Benicia	3078
Pacific Gas & Electric Co.	Pittsburg	1921
Kaiser Cement Corporation	Cupertino	1694
Unocal Corporation	Rodeo	1681
Owens-Brockway Glass Container	Oakland	860
Pacific Gas & Electric Co.	Antioch	839
Dow Chemical	Pittsburg	790

Table 5-24

San Francisco Bay Area Air Basin

High Emitting Facilities

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Tosco Corp. Avon Refinery	Martinez	3017
Chevron Inc.	Richmond	2894
Shell Martinez Refining Company	Martinez	1472
New United Motor Manufacturing	Fremont	946
Exxon Corporation	Benicia	812
Quebecor Printing San Jose Inc.	San Jose	677
Unocal Corporation	Rodeo	597
Pacific Refining Company	Hercules	352
Reynolds Metals Company	Hayward	246
United Can Company	Hayward	218

Table 5-24 (continued)

San Francisco Bay Area Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Shell Martinez Refining Company	Martinez	446
Homestake Mining	Knoxville	317
Chevron Inc.	Richmond	232
Union Chemicals	Rodeo	208
Exxon Corporation	Benicia	205
Owens-Brockway Glass Container	Oakland	195
Tosco Corp. Avon Refinery	Martinez	145
Kaiser Cement Corporation	Cupertino	108

Table 5-24 (continued)

San Francisco Bay Area Air Basin

High Emitting Facilities

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
E I Dupont De Nemours & Company	Martinez	9165
Kaiser Cement Corporation	Richmond	2341
Pacific Gas & Electric Co.	Pittsburg	740
Shell Martinez Refining Company	Martinez	530
Exxon Corporation	Benicia	498
Chevron Inc.	Richmond	495
Tosco Corp. Avon Refinery	Rodeo	445
Dow Chemical Company	Pittsburg	300
City of Santa Rosa Sewage System	Santa Rosa	265
Unocal Corporation	Rodeo	240

Table 5-24 (continued)

San Joaquin Valley Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Fresno	115	120	109
Kern[1]	240	208	165
Kings	24	27	26
Madera	23	25	31
Merced	40	48	42
San Joaquin	72	77	73
Stanislaus	44	53	47
Tulare	46	48	46

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Fresno	167	127	108
Kern[1]	416	208	137
Kings	25	24	22
Madera	24	24	21
Merced	40	39	28
San Joaquin	91	85	77
Stanislaus	54	53	46
Tulare	59	55	50

Table 5-25

1. This Air Basin includes only a portion of this county.

San Joaquin Valley Air Basin

Summary Emissions

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Fresno	115	121	124
Kern[1]	72	68	68
Kings	36	36	37
Madera	22	23	24
Merced	47	50	48
San Joaquin	39	43	45
Stanislaus	33	38	39
Tulare	47	51	53

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Fresno	657	657	562
Kern[1]	699	579	511
Kings	125	130	100
Madera	147	145	113
Merced	269	292	208
San Joaquin	483	450	392
Stanislaus	328	357	282
Tulare	363	341	312

Table 5-25 (continued)

1. This Air Basin includes only a portion of this county.

San Joaquin Valley Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Sycamore Cogeneration	Oildale	2113
Union Oil Company	Coalinga	1523
Kern River Cogeneration	Oildale	1265
Guardian Industries Corp. (Glass Products)	Kingsburg	1167
Arco Western Energy	Wasco	1103
Calresources LLC (Petroleum)	Kern Western	1058
PPG Ind., Inc. (Glass Products)	Fresno	906
Owens Illinois (Glass Products)	Tracy	785
Libbey Owens Ford (Glass Products)	Lathrop	716
Vintage Petroleum, Inc.	Taft	614

Table 5-26

San Joaquin Valley Air Basin

High Emitting Facilities

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Texaco Refining and Marketing	Bakersfield	786
Naval Petroleum Reserve No. 1	Shafter	723
Silgan Container Corp. (Metal Cans)	Riverbank	211
J.G. Boswell Co. (Grain Mill)	Corcoran	160
Texaco Refining and Marketing	Bakersfield	138
Kern Oil & Refining Company	Bakersfield	127
Chevron USA Inc.	Avelon	124
Texaco E&P (Denver)	Tupman	123
Anderson Clayton (West Cotton) (Cottonseed Oil Mill)	Chowchilla	121
Chevron USA, Inc.	Lost Hills	121

Table 5-26 (continued)

San Joaquin Valley Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Port of Stockton	Stockton	463
Gallo Glass Co.	Modesto	232
Steward Nuss, Inc. (Paving)	Fresno	156
Arco Western Energy (Petroleum)	Taft	140
Calresources LLC (Petroleum)	Kern Western	131
Foster Farms - Feed Mill	Livingston	101

Table 5-26 (continued)

San Joaquin Valley Air Basin

High Emitting Facilities

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Arco Western Energy (Petroleum)	Buttonwillow	1310
Naval Petroleum Reserve No. 1	Shafter	1105
Naval Petroleum Reserve No. 1	Tupman	741
Arco Western Energy (Petroleum)	Buttonwillow	489
Santa Fe Energy Resources, Inc. (Petroleum)	Wasco	305
Rio Bravo Poso (Petroleum)	Bakersfield	277
POSDEF Power Co., L.P.	Stockton	239
Newark Sierra Paperboard Corp.	Stockton	229
Fresno Cogeneration L.P.	San Joaquin	215
Arco Western Energy (Natural Gas)	Taft	195

Table 5-26 (continued)

South Central Coast Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Luis Obispo	47	50	36
Santa Barbara	54	53	43
Ventura	89	76	59

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Luis Obispo	41	38	32
Santa Barbara	62	61	52
Ventura	109	98	84

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Luis Obispo	22	26	28
Santa Barbara	16	18	19
Ventura	23	25	24

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
San Luis Obispo	261	262	195
Santa Barbara	347	342	230
Ventura	514	515	410

Table 5-27

South Central Coast Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
P G & E - Morro Bay	Morro Bay	685
SCE-Mandalay Gen. Station	Oxnard	546
Orcutt Hill IC Engines (Petroleum)	Santa Maria	353
Procter & Gamble Paper Products	Oxnard	319
Cat Canyon IC Engines (Petroleum)	Santa Maria	202
Celite Corporation (Minerals)	Lompoc	138

Table 5-28

South Central Coast Air Basin

High Emitting Facilities

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
South Cuyama - Hallador (Petroleum)	Cuyama	158
Gaviota O & G - Chevron	South County	148
Chevron USA	Estero Bay	148
Unocal, Santa Maria Refinery	Arroyo Grande	147
Shell Western E&P Inc. (SWEPI)	Ventura	133
Texaco E&P Inc.	Ventura	129
Vintage Petroleum Inc.	Ventura	121
Pacific Offshore Pipeline	South County	118
Cat Canyon IC Engines (Petroleum)	Cat Canyon Fields	116
Ellwood O & G Proc-Mobil	Goleta	106

Table 5-28 (continued)

South Central Coast Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Unocal Carbon Plant	Arroyo Grande	172
Procter & Gamble Paper Products	Oxnard	112

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Rocketdyne Division (Space Propulsion)	Simi Valley	522
Shell Western E&P Inc. (SWEPI)	Ventura	410
Carpinteria IC Engines (Petroleum)	Carpinteria	311
SCE-Ormond Beach Gen. Station	Oxnard	301
Seneca Energy Resources Corp. (Petroleum)	Ojai	292
South Cuyama - Hallador (Petroleum)	Cuyama	244
P G & E - Morro Bay	Morro Bay	211
La Conchita Oil & Gas Plant	Ventura	191
Unocal Pipeline Department	Ventura	189
Shell Western E&P Inc. (SWEPI)	Fillmore	183

Table 5-28 (continued)

South Coast Air Basin

Summary Emissions

NO_x Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Los Angeles[1]	908	849	725
Orange	228	225	197
Riverside[1]	128	160	147
San Bernardino[1]	132	150	145

ROG Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Los Angeles[1]	1163	963	736
Orange	342	300	247
Riverside[1]	121	130	124
San Bernardino[1]	148	143	124

PM_{10} Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Los Angeles[1]	215	227	211
Orange	61	68	66
Riverside[1]	167	185	152
San Bernardino[1]	59	69	68

CO Emissions (tons/day, annual average)			
County	**1985**	**1990**	**1995**
Los Angeles[1]	6520	5533	4289
Orange	1946	1751	1472
Riverside[1]	717	879	767
San Bernardino[1]	756	772	683

Table 5-29

1. This Air Basin includes only a portion of this county.

South Coast Air Basin

High Emitting Facilities

Oxides of Nitrogen (NO_x)

Facility Name	City	Tons/Year
Chevron USA Inc.	El Segundo	2587
California Portland Cement Co.	Colton	2289
Arco Products Co.	Carson	2132
Mobil Oil Products (EIS Use)	Torrance	2057
Union Oil Corp. of Cal. (NSR Use)	Wilmington	1697
Texaco Refining & Marketing Co.	Wilmington	1008
Unocal Refinery & Marketing Co.	Carson	789
So. Cal Edison Co.	Long Beach	653
So. Cal Edison Co.	Avalon	520
Owens-Brockway Glass Container	Vernon	517

Table 5-30

South Coast Air Basin

High Emitting Facilities

Reactive Organic Gases (ROG)

Facility Name	City	Tons/Year
Arco Products Co.	Carson	1018
Chevron USA Inc.	El Segundo	731
Cal Resources (Petroleum)	Huntington Beach	688
Union Oil Co. of Cal.	Wilmington	375
Nutrilite Division of Amway Co. (Pharmaceuticals)	Lakeview	368
Mobil Oil Corp. (EIS Use)	Torrance	339
Texaco Ref & Marketing Co.	Wilmington	326
Ultramar Inc. (NSR Use) (Petroleum)	Wilmington	297
Reynolds Metals Company	Torrance	278
Shell Oil Products Co.	Carson	257

Table 5-30 (continued)

South Coast Air Basin

High Emitting Facilities

Particulate Matter (PM_{10})

Facility Name	City	Tons/Year
Chevron USA Inc.	El Segundo	518
Arco Products Co.	Carson	484
General Marble (Wood Cabinets)	Rancho Cucamonga	264
Ultramar Inc. (NSR Use Only) (Petroleum)	Wilmington	191
Union Oil Co. of Cal. (NSR Use)	Wilmington	183
Texaco Ref. & Marketing Co.	Wilmington	181
Mobil Oil Corp. (EIS Use)	Torrance	152
Unocal Refinery & Marketing Co.	Carson	137
California Portland Cement	Colton	133

Table 5-30 (continued)

South Coast Air Basin

High Emitting Facilities

Carbon Monoxide (CO)

Facility Name	City	Tons/Year
Chevron USA Inc.	El Segundo	1793
Arco Products Co.	Carson	1136
Mobil Oil Corp. (EIS Use)	Torrance	715
Union Oil Co. of Cal. (NSR Use)	Wilmington	541
Tamco (Printing)	Rancho Cucamonga	398
Hood Corp. (Trade Contractors)	Whittier	373
Unocal Refinery & Marketing Co.	Carson	336
Eastern Municipal Water District	Temecula	325
Orange Co. - Sanitation	Huntington Beach	323
So. Cal Edison	Long Beach	320

Table 5-30 (continued)

Air Quality

This section contains air quality trend data for each county in the 15 air basins, organized alphabetically by air basin. It is important to note that some counties are located in more than one air basin. For these counties, the air quality data are for that portion of the county located in each air basin. The time period covered is 1980 through 1997 for ozone, CO, NO_2, and SO_2 and 1988 through 1997 for PM_{10}. In some areas, no monitoring data are available or the data tables are incomplete. Tables for these areas are included for completeness, but the lack of data is noted on the tables.

Great Basin Valleys Air Basin

County: Alpine

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
National 1-Hour Design Value																		
National 8-Hour Design Value																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State Standard																		
Days Above Nat. 1-Hour Standard																		

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																		
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard																		
Calc. Days Above Nat. 24-Hour Std.																		

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-31

Great Basin Valleys Air Basin

County: Inyo

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.088	0.088											0.083	0.083	0.097	0.094	0.093	0.089
National 1-Hour Design Value	0.080	0.080										0.040	0.080	0.080	0.093	0.093	0.093	0.086
National 8-Hour Design Value	0.070	0.070										0.040	0.070	0.071	0.084	0.068	0.079	0.077
Maximum 1-Hour Concentration	0.100	0.080										0.050	0.080	0.080	0.101	0.085	0.095	0.084
Maximum 8-Hour Concentration	0.071	0.074										0.042	0.076	0.078	0.089	0.073	0.082	0.080
Days Above State Standard	1	0										0	0	0	2	0	1	0
Days Above Nat. 1-Hour Standard	0	0										0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									394	1861	866	181	526	781	388	2668	491	312
Maximum Annual Geometric Mean									18.7	24.1	22.7	16.5	16.4	15.0	22.2	18.5		21.0
Days Above State 24-Hour Standard									24	24	11	12	7	14	14	17	23	21
Calc. Days Above Nat. 24-Hour Std.									12	24	12	6	18	6	6	18	18	13

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													3.5	3.2	3.1			
Maximum 1-Hour Concentration												6.0	11.0	5.0	5.0	4.0		
Maximum 8-Hour Concentration												3.6	3.8	2.8	2.8	2.0		
Days Above State 8-Hour Standard												0	0	0	0	0		
Days Above Nat. 8-Hour Standard												0	0	0	0	0		

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-32

Great Basin Valleys Air Basin

County: Mono

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator			0.094	0.091	0.096	0.094	0.100	0.099	0.100		0.100		0.115	0.110	0.108	0.097	0.099	0.096
National 1-Hour Design Value			0.080	0.090	0.090	0.090	0.100	0.100	0.100	0.100	0.100	0.090	0.120	0.120	0.120	0.100	0.100	0.091
National 8-Hour Design Value			0.070	0.080	0.079	0.080	0.090	0.084	0.086	0.073	0.083	0.070	0.091	0.075	0.083	0.080	0.078	0.076
Maximum 1-Hour Concentration			0.090	0.090	0.090	0.100	0.100	0.100	0.100	0.080	0.100	0.090	0.150	0.090	0.120	0.110	0.090	0.092
Maximum 8-Hour Concentration			0.083	0.088	0.088	0.090	0.094	0.091	0.099	0.078	0.091	0.074	0.104	0.078	0.093	0.101	0.090	0.079
Days Above State Standard			0	0	0	1	5	4	3	0	2	0	5	0	2	2	0	0
Days Above Nat. 1-Hour Standard			0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									166	163	161	134	493	981	92	122	158	112
Maximum Annual Geometric Mean									27.9	23.9	29.0	11.6	28.9	25.7	23.4	21.0	20.4	20.0
Days Above State 24-Hour Standard									14	14	18	14	20	14	10	7	5	6
Calc. Days Above Nat. 24-Hour Std.									6	6	12	0	6	9	0	0	6	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	9.3	8.5	8.6	7.7		7.3	7.2	7.0	5.9	5.8				5.0	4.7	4.6	4.0	
Maximum 1-Hour Concentration	17.0	13.0	18.0	14.0	13.0	16.0	11.0	9.0	13.0	12.0	10.0	11.0	8.0	13.0	9.0	10.0	6.0	7.5
Maximum 8-Hour Concentration	8.5	6.4	10.8	7.9	7.3	7.4	6.0	6.3	5.0	5.4	4.4	5.0	4.4	4.5	5.4	5.4	3.0	3.4
Days Above State 8-Hour Standard	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-33

Lake County Air Basin

County: Lake

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.086	0.083	0.083	0.077	0.080	0.075	0.081	0.081	0.080	0.083	0.074	0.075	0.077	0.077	0.083	0.082	0.082	0.076
National 1-Hour Design Value	0.080	0.080	0.080	0.080	0.080	0.070	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080
National 8-Hour Design Value	0.068	0.056	0.069	0.055	0.066	0.058	0.071	0.069	0.059	0.050	0.055	0.060	0.051	0.063	0.065	0.058	0.060	0.059
Maximum 1-Hour Concentration	0.090	0.080	0.080	0.070	0.080	0.080	0.080	0.090	0.070	0.060	0.090	0.080	0.080	0.080	0.090	0.070	0.090	0.080
Maximum 8-Hour Concentration	0.075	0.060	0.074	0.061	0.078	0.070	0.080	0.080	0.061	0.054	0.064	0.066	0.058	0.073	0.075	0.064	0.070	0.065
Days Above State Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									28	29	30	31	22	30	21	30	26	18
Maximum Annual Geometric Mean										12.0	10.1	11.0	11.1	9.9	10.1	9.6	9.1	7.7
Days Above State 24-Hour Standard									0	0	0	0	0	0	0	0	0	0
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	3.4									1.9	2.9							
Maximum 1-Hour Concentration	5.0	3.0								3.0	6.0	7.0						
Maximum 8-Hour Concentration	2.9	2.1								2.2	2.6	3.1						
Days Above State 8-Hour Standard	0	0								0	0	0						
Days Above Nat. 8-Hour Standard	0	0								0	0	0						

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.048																	
Maximum 1-Hour Concentration	0.040	0.030																
Maximum Annual Average	0.008																	

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-34

Lake Tahoe Air Basin

County: El Dorado

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.089	0.090	0.088	0.086	0.080	0.080	0.082	0.085	0.089	0.091	0.092	0.093	0.089	0.079	0.082	0.084	0.084	0.083
National 1-Hour Design Value	0.090	0.080	0.090	0.080	0.080	0.080	0.080	0.090	0.090	0.090	0.090	0.090	0.090	0.070	0.081	0.086	0.083	0.083
National 8-Hour Design Value	0.070	0.074	0.069	0.066	0.069	0.070	0.070	0.075	0.079	0.081	0.074	0.075	0.079	0.066	0.074	0.071	0.069	0.066
Maximum 1-Hour Concentration	0.090	0.100	0.090	0.080	0.080	0.100	0.090	0.090	0.090	0.100	0.090	0.090	0.100	0.090	0.086	0.092	0.083	0.095
Maximum 8-Hour Concentration	0.080	0.083	0.080	0.071	0.073	0.086	0.080	0.083	0.085	0.085	0.080	0.081	0.083	0.071	0.079	0.089	0.074	0.071
Days Above State Standard	0	2	0	0	0	1	0	0	0	2	0	0	1	0	0	0	0	1
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									95	73	84	78	85	92	78	71	72	55
Maximum Annual Geometric Mean									30.1	24.9	26.0	24.6			23.5	19.3	19.3	19.6
Days Above State 24-Hour Standard									10	5	10	6	5	5	7	3	4	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	13.7	15.0	15.6	16.2	16.2	16.4	15.5	14.9	13.2	12.6	11.9	11.1	10.2	8.7	8.3	7.8	7.0	5.6
Maximum 1-Hour Concentration	30.0	25.0	27.0	30.0	23.0	23.0	20.0	19.0	19.0	17.0	18.0	14.0	15.0	13.0	11.3	9.3	10.4	7.7
Maximum 8-Hour Concentration	19.0	15.4	18.3	17.4	14.8	16.3	12.5	13.0	12.5	11.3	10.1	9.2	9.9	7.5	7.1	6.3	5.1	3.8
Days Above State 8-Hour Standard	115	163	155	135	131	115	88	84	75	67	39	24	13	11	9	1	0	0
Days Above Nat. 8-Hour Standard	26	25	39	21	27	27	10	12	8	5	5	0	1	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.077	0.074	0.073	0.085	0.078	0.078	0.073	0.076	0.073	0.074	0.078	0.076	0.078	0.062	0.061	0.062	0.058	0.057
Maximum 1-Hour Concentration	0.120	0.060	0.090	0.080	0.060	0.080	0.080	0.080	0.070	0.070	0.150	0.060	0.060	0.060	0.057	0.059	0.061	0.051
Maximum Annual Average	0.015	0.014	0.014	0.010	0.012	0.011	0.010	0.012	0.012	0.012	0.012	0.012	0.011	0.012	0.012	0.011	0.011	0.011

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.03																	
Maximum 1-Hour Concentration	0.02																	

Table 5-35

A portion of El Dorado County lies within the Mountain Counties Air Basin.

Lake Tahoe Air Basin

County: Placer

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
National 1-Hour Design Value																		
National 8-Hour Design Value																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State Standard																		
Days Above Nat. 1-Hour Standard																		

No Monitoring Data Available

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																24	50	
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard																0	0	
Calc. Days Above Nat. 24-Hour Std.																0	0	

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator														3.9	3.9	3.9		
Maximum 1-Hour Concentration		11.0	15.0		13.0									9.0	11.6	9.5		
Maximum 8-Hour Concentration		7.9	8.5		7.3									4.3	4.7	2.9		
Days Above State 8-Hour Standard		2	7		2									0	0	0		
Days Above Nat. 8-Hour Standard		0	0		0									0	0	0		

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-36

Portions of Placer County lie within the Mountain Counties and Sacramento Valley Air Basins.

Mojave Desert Air Basin

County: Kern

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.122	0.134	0.125	0.121
National 1-Hour Design Value														0.120	0.121	0.123	0.123	0.123
National 8-Hour Design Value														0.103	0.102	0.101	0.104	0.092
Maximum 1-Hour Concentration														0.130	0.124	0.127	0.130	0.119
Maximum 8-Hour Concentration														0.113	0.107	0.110	0.109	0.096
Days Above State Standard														15	43	44	46	22
Days Above Nat. 1-Hour Standard														2	0	2	2	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									148	54	462	534	65	64	116	235	92	130
Maximum Annual Geometric Mean											24.4			16.9		14.8	13.4	15.0
Days Above State 24-Hour Standard									11	1	7	5	2	2	4	3	3	2
Calc. Days Above Nat. 24-Hour Std.									0	0	6	18	0	0	0	6	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.063	0.067	0.072	0.070
Maximum 1-Hour Concentration														0.070	0.060	0.120	0.075	0.075
Maximum Annual Average															0.008	0.008	0.009	0.010

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-37

A portion of Kern County lies within the San Joaquin Valley Air Basin.

Mojave Desert Air Basin

County: Los Angeles

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.228	0.226	0.220	0.205	0.175	0.185	0.187	0.191	0.187	0.181	0.144	0.141	0.154	0.159	0.161	0.194	0.138	0.134
National 1-Hour Design Value	0.220	0.220	0.220	0.200	0.180	0.180	0.190	0.190	0.180	0.170	0.170	0.140	0.160	0.160	0.160	0.172	0.138	0.129
National 8-Hour Design Value	0.168	0.154	0.115	0.131	0.128	0.139	0.137	0.124	0.126	0.123	0.105	0.105	0.121	0.115	0.105	0.130	0.099	0.090
Maximum 1-Hour Concentration	0.290	0.210	0.160	0.180	0.180	0.190	0.200	0.170	0.180	0.210	0.150	0.140	0.170	0.160	0.143	0.185	0.131	0.123
Maximum 8-Hour Concentration	0.184	0.169	0.127	0.146	0.141	0.148	0.150	0.140	0.131	0.148	0.106	0.111	0.138	0.128	0.113	0.154	0.105	0.102
Days Above State Standard	106	133	82	93	110	106	108	105	105	95	52	62	78	59	62	92	40	14
Days Above Nat. 1-Hour Standard	61	82	25	42	49	58	47	32	44	27	7	8	25	14	10	34	1	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration										110	342	780	68	70	97	61	67	54
Maximum Annual Geometric Mean										43.0		38.1	29.5	30.5	27.7	22.6	25.6	27.4
Days Above State 24-Hour Standard										25	22	11	5	9	3	3	2	2
Calc. Days Above Nat. 24-Hour Std.										0	12	12	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.1	6.8	5.8	5.4	5.4	5.6	5.2	4.9	4.6	5.5	7.7	7.6	6.6	6.2	6.1	5.8	5.3	4.8
Maximum 1-Hour Concentration	11.0	9.0	10.0	13.0	10.0	12.0	9.0	12.0	11.0	13.0	11.0	10.0	9.0	8.0	9.1	7.5	6.8	5.9
Maximum 8-Hour Concentration	6.1	7.4	5.0	6.3	4.9	5.7	4.6	3.9	5.9	7.1	8.3	7.1	5.4	5.9	5.6	5.1	4.7	4.0
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.104	0.093	0.092	0.095	0.093	0.091	0.087	0.084	0.090	0.091	0.096	0.095	0.097	0.098	0.097	0.099	0.090	0.086
Maximum 1-Hour Concentration	0.090	0.220	0.080	0.090	0.110	0.080	0.090	0.090	0.090	0.080	0.090	0.110	0.160	0.110	0.097	0.140	0.080	0.071
Maximum Annual Average	0.012	0.013	0.016	0.015	0.018	0.015	0.014	0.016	0.016	0.019	0.021	0.014	0.017	0.020	0.018	0.019	0.015	0.014

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-38

A portion of Los Angeles County lies within the South Coast Air Basin.

Mojave Desert Air Basin

County: Riverside

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator						0.143	0.138				0.122	0.140	0.092	0.143				
National 1-Hour Design Value						0.110	0.140	0.140		0.130	0.120	0.130	0.080	0.130				
National 8-Hour Design Value						0.093	0.100	0.103		0.099	0.094	0.106	0.071	0.091				
Maximum 1-Hour Concentration						0.140	0.160	0.140		0.140	0.130	0.130	0.090	0.140				
Maximum 8-Hour Concentration						0.103	0.105	0.106		0.118	0.103	0.115	0.076	0.109				
Days Above State Standard						19	39	24		31	23	33	0	18				
Days Above Nat. 1-Hour Standard						3	3	3		2	1	6	0	1				

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration												112	242					
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard												9	7					
Calc. Days Above Nat. 24-Hour Std.												0	6					

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-39

Portions of Riverside County lie within the Salton Sea and South Coast Air Basins.

Mojave Desert Air Basin

County: San Bernardino

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.206	0.315	0.207	0.199	0.193	0.200	0.237	0.232	0.234	0.204	0.215	0.223	0.220	0.194	0.191	0.188	0.186	0.171
National 1-Hour Design Value	0.210	0.290	0.210	0.210	0.220	0.220	0.230	0.230	0.230	0.210	0.220	0.230	0.230	0.200	0.190	0.188	0.182	0.175
National 8-Hour Design Value	0.135	0.240	0.138	0.130	0.130	0.150	0.186	0.154	0.159	0.151	0.164	0.145	0.140	0.138	0.142	0.121	0.134	0.118
Maximum 1-Hour Concentration	0.260	0.330	0.200	0.230	0.230	0.210	0.260	0.220	0.270	0.220	0.270	0.240	0.230	0.200	0.188	0.240	0.175	0.187
Maximum 8-Hour Concentration	0.176	0.296	0.145	0.183	0.159	0.168	0.225	0.161	0.167	0.161	0.199	0.174	0.165	0.148	0.155	0.171	0.146	0.133
Days Above State Standard	100	144	105	109	103	138	142	147	148	150	135	132	148	129	137	96	98	95
Days Above Nat. 1-Hour Standard	52	100	25	48	38	74	94	71	104	91	76	67	75	66	77	33	38	22

PM_{10} (μg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									150	191	381	389	105	79	140	85	138	85
Maximum Annual Geometric Mean									33.6	42.0	38.6	36.6	35.6	33.3	36.4		24.2	25.2
Days Above State 24-Hour Standard									27	33	39	25	21	18	20	5	12	5
Calc. Days Above Nat. 24-Hour Std.									0	6	12	6	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	5.8	7.3	7.7	2.8	3.1	3.4	3.4	3.6	4.2	4.1	4.1	4.2	4.3	3.8	3.8	2.7	7.4	2.3
Maximum 1-Hour Concentration	8.0	8.0	5.0	8.0	6.0	6.0	8.0	6.0	10.0	7.0	9.0	5.0	6.0	5.0	7.9	6.1	8.4	4.1
Maximum 8-Hour Concentration	8.0	7.3	3.5	2.9	2.9	3.5	3.4	4.0	5.8	3.9	3.9	3.9	3.4	3.5	3.2	2.7	7.5	3.1
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.135	0.144	0.141	0.148	0.138	0.137	0.130	0.135	0.112	0.100	0.101	0.107	0.266	0.244	0.126	0.124	0.119	0.097
Maximum 1-Hour Concentration	0.120	0.300	0.200	0.150	0.160	0.140	0.150	0.130	0.100	0.120	0.190	0.250	0.240	0.360	0.138	0.118	0.087	0.107
Maximum Annual Average	0.020	0.025	0.025	0.023	0.024	0.025	0.021	0.025	0.023	0.026	0.024	0.028	0.026	0.026	0.027	0.023	0.021	0.020

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.11	0.02	0.02	0.03	0.04	0.04	0.03	0.03	0.06	0.06	0.06	0.03	0.02	0.02	0.02	0.02	0.01	0.02
Maximum 1-Hour Concentration	0.15	0.03	0.02	0.09	0.03	0.03	0.03	0.01	0.08	0.08	0.08	0.03	0.03	0.03	0.07	0.02	0.02	0.04

Table 5-40

A portion of San Bernardino County lies within the South Coast Air Basin.

Mountain Counties Air Basin

County: Amador

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													0.119	0.117	0.117	0.119	0.123	0.124
National 1-Hour Design Value													0.110	0.110	0.119	0.119	0.123	0.127
National 8-Hour Design Value													0.090	0.089	0.096	0.092	0.094	0.084
Maximum 1-Hour Concentration													0.120	0.110	0.123	0.146	0.127	0.135
Maximum 8-Hour Concentration													0.105	0.090	0.104	0.112	0.107	0.104
Days Above State Standard													15	11	15	21	21	9
Days Above Nat. 1-Hour Standard													0	0	0	1	2	1

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																		30
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard																		0
Calc. Days Above Nat. 24-Hour Std.																		0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													2.5	2.2	2.0	2.0	1.7	1.5
Maximum 1-Hour Concentration													3.0	3.0	9.3	9.3	2.2	2.8
Maximum 8-Hour Concentration													2.4	3.0	1.8	2.6	1.5	1.4
Days Above State 8-Hour Standard													0	0	0	0	0	0
Days Above Nat. 8-Hour Standard													0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-41

Mountain Counties Air Basin

County: Calaveras

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.121	0.118	0.123	0.124
National 1-Hour Design Value															0.114	0.117	0.129	0.130
National 8-Hour Design Value															0.099	0.094	0.100	0.085
Maximum 1-Hour Concentration															0.121	0.146	0.138	0.140
Maximum 8-Hour Concentration															0.109	0.107	0.112	0.112
Days Above State Standard															35	23	24	6
Days Above Nat. 1-Hour Standard															0	1	3	1

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration															44	118	36	112
Maximum Annual Geometric Mean																17.7	15.6	17.7
Days Above State 24-Hour Standard															0	2	0	1
Calc. Days Above Nat. 24-Hour Std.															0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.7	1.0	0.9	0.9
Maximum 1-Hour Concentration															1.5	2.1	1.7	2.1
Maximum 8-Hour Concentration															0.7	1.8	0.9	1.7
Days Above State 8-Hour Standard															0	0	0	0
Days Above Nat. 8-Hour Standard															0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.02																	
Maximum 1-Hour Concentration	0.02																	

Table 5-42

Mountain Counties Air Basin

County: El Dorado

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator										0.138			0.128	0.122	0.127	0.131	0.137	0.140
National 1-Hour Design Value										0.120			0.120	0.120	0.124	0.124	0.126	0.123
National 8-Hour Design Value										0.104			0.099	0.094	0.102	0.105	0.105	0.092
Maximum 1-Hour Concentration										0.130			0.120	0.120	0.130	0.126	0.136	0.145
Maximum 8-Hour Concentration										0.110			0.113	0.109	0.105	0.114	0.113	0.106
Days Above State Standard										21			29	10	26	32	41	19
Days Above Nat. 1-Hour Standard										2			0	0	2	1	3	1

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									56	59	89		103	62	34	53	58	62
Maximum Annual Geometric Mean														15.7	16.4	15.3	14.4	15.7
Days Above State 24-Hour Standard									1	3	2		1	1	0	1	1	1
Calc. Days Above Nat. 24-Hour Std.									0	0	0		0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator										4.1			1.6	1.4	1.3	1.2	1.0	1.0
Maximum 1-Hour Concentration										6.0	5.0		3.0	2.0	1.7	1.6	1.3	1.6
Maximum 8-Hour Concentration										4.6	3.5		2.4	1.5	1.0	1.0	0.9	0.8
Days Above State 8-Hour Standard										0	0		0	0	0	0	0	0
Days Above Nat. 8-Hour Standard										0	0		0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-43

A portion of El Dorado County lies within the Lake Tahoe Air Basin.

Mountain Counties Air Basin

County: Mariposa

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.094								0.097	0.112	0.118		0.114	0.114	0.113	0.108	0.111
National 1-Hour Design Value		0.090								0.090	0.110	0.110	0.110	0.110	0.110	0.111	0.109	0.110
National 8-Hour Design Value		0.076								0.086	0.094	0.099	0.091	0.103	0.095	0.095	0.097	0.093
Maximum 1-Hour Concentration		0.090								0.110	0.120	0.110	0.100	0.120	0.113	0.114	0.111	0.120
Maximum 8-Hour Concentration		0.088								0.094	0.096	0.103	0.095	0.111	0.105	0.104	0.107	0.106
Days Above State Standard		0								2	20	19	5	17	10	20	28	7
Days Above Nat. 1-Hour Standard		0								0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									180	84	209	350	104	126	115	71	106	62
Maximum Annual Geometric Mean											35.6	34.1	27.4	26.0	27.8	24.2		19.6
Days Above State 24-Hour Standard									13	7	22	14	5	4	14	5	4	1
Calc. Days Above Nat. 24-Hour Std.									6	0	9	12	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration		5.0																
Maximum 8-Hour Concentration		5.0																
Days Above State 8-Hour Standard		0																
Days Above Nat. 8-Hour Standard		0																

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-44

Mountain Counties Air Basin

County: Nevada

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator										0.118	0.125	0.118	0.110	0.076	0.111	0.111	0.118	0.113
National 1-Hour Design Value										0.100	0.110	0.110	0.110	0.070	0.100	0.100	0.110	0.108
National 8-Hour Design Value										0.097	0.091	0.090	0.085	0.069	0.090	0.086	0.097	0.096
Maximum 1-Hour Concentration										0.120	0.150	0.110	0.110	0.090	0.110	0.099	0.111	0.108
Maximum 8-Hour Concentration										0.107	0.115	0.096	0.088	0.079	0.108	0.093	0.105	0.102
Days Above State Standard										12	8	7	2	0	8	3	22	10
Days Above Nat. 1-Hour Standard										0	2	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									38			44	43	34			49	136
Maximum Annual Geometric Mean													21.1					27.4
Days Above State 24-Hour Standard									0			0	0	0			0	13
Calc. Days Above Nat. 24-Hour Std.									0			0	0	0			0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration												1.0		10.0	9.0			
Maximum 8-Hour Concentration												0.1		5.4	5.4			
Days Above State 8-Hour Standard												0		0	0			
Days Above Nat. 8-Hour Standard												0		0	0			

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-45

Mountain Counties Air Basin

County: Placer

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator									0.155	0.134			0.120	0.119	0.118	0.119	0.116	0.111
National 1-Hour Design Value									0.140	0.140	0.140	0.100	0.110	0.110	0.120	0.119	0.117	0.109
National 8-Hour Design Value									0.109	0.098	0.064	0.030	0.093	0.094	0.093	0.094	0.090	0.078
Maximum 1-Hour Concentration									0.160	0.120	0.090	0.060	0.130	0.120	0.122	0.130	0.108	0.103
Maximum 8-Hour Concentration									0.139	0.101	0.079	0.035	0.099	0.098	0.108	0.101	0.092	0.097
Days Above State Standard									39	24	0	0	17	9	15	16	4	2
Days Above Nat. 1-Hour Standard									7	0	0	0	1	0	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																86	60	58
Maximum Annual Geometric Mean																	17.8	
Days Above State 24-Hour Standard																3	1	1
Calc. Days Above Nat. 24-Hour Std.																0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-46

Portions of Placer County lie within the Lake Tahoe and Sacramento Valley Air Basins.

Mountain Counties Air Basin

County: Plumas

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator							0.090							0.087	0.090	0.094	0.094	
National 1-Hour Design Value							0.080	0.080					0.050	0.080	0.090	0.090	0.091	0.091
National 8-Hour Design Value							0.074	0.070					0.038	0.070	0.080	0.082	0.073	0.041
Maximum 1-Hour Concentration							0.090	0.080					0.050	0.090	0.090	0.105	0.091	0.046
Maximum 8-Hour Concentration							0.079	0.074					0.040	0.076	0.084	0.097	0.080	0.043
Days Above State Standard							0	0					0	0	0	1	0	0
Days Above Nat. 1-Hour Standard							0	0					0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									153	144	138	162	120	130	98	52	55	66
Maximum Annual Geometric Mean											28.7		31.0	30.0	28.7	21.7	18.8	19.5
Days Above State 24-Hour Standard									16	14	12	15	14	15	7	1	1	6
Calc. Days Above Nat. 24-Hour Std.									0	0	0	6	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator							4.5											
Maximum 1-Hour Concentration							6.0	3.0										
Maximum 8-Hour Concentration							4.2	2.3										
Days Above State 8-Hour Standard							0	0										
Days Above Nat. 8-Hour Standard							0	0										

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator							0.046											
Maximum 1-Hour Concentration							0.050	0.040										
Maximum Annual Average							0.009											

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-47

Mountain Counties Air Basin

County: Sierra

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
National 1-Hour Design Value																		
National 8-Hour Design Value																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State Standard																		
Days Above Nat. 1-Hour Standard																		

No Monitoring Data Available

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																	114	138
Maximum Annual Geometric Mean																		26.4
Days Above State 24-Hour Standard																	2	5
Calc. Days Above Nat. 24-Hour Std.																	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-48

Mountain Counties Air Basin

County: Tuolumne

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator										0.084		0.089	0.102	0.102	0.103	0.105	0.112	0.112
National 1-Hour Design Value										0.080	0.080	0.090	0.090	0.100	0.101	0.103	0.116	0.117
National 8-Hour Design Value										0.075	0.075	0.076	0.084	0.088	0.087	0.088	0.095	0.093
Maximum 1-Hour Concentration										0.090	0.090	0.090	0.100	0.120	0.107	0.135	0.121	0.117
Maximum 8-Hour Concentration										0.079	0.081	0.079	0.097	0.089	0.095	0.105	0.108	0.108
Days Above State Standard										0	0	0	2	5	8	9	25	8
Days Above Nat. 1-Hour Standard										0	0	0	0	0	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																		
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard																		
Calc. Days Above Nat. 24-Hour Std.																		

No Monitoring Data Available

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	16.5	15.7											2.9	2.9	2.8	2.8	2.7	2.4
Maximum 1-Hour Concentration	27.0	30.0											4.0	5.0	4.4	3.9	4.5	6.6
Maximum 8-Hour Concentration	16.6	16.0											2.6	3.0	2.7	3.4	2.6	1.9
Days Above State 8-Hour Standard	74	40											0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	57	39											0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-49

North Central Coast Air Basin

County: Monterey

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.090	0.086	0.084	0.098	0.098	0.098	0.095	0.095	0.091	0.098	0.096	0.095	0.093	0.092	0.092	0.094	0.093	0.090
National 1-Hour Design Value	0.100	0.100	0.100	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.100	0.090	0.090	0.090	0.090	0.091	0.087
National 8-Hour Design Value	0.079	0.061	0.065	0.075	0.073	0.075	0.067	0.074	0.065	0.080	0.075	0.071	0.068	0.078	0.068	0.066	0.075	0.062
Maximum 1-Hour Concentration	0.140	0.090	0.110	0.100	0.090	0.110	0.080	0.090	0.090	0.130	0.090	0.100	0.090	0.110	0.093	0.093	0.094	0.091
Maximum 8-Hour Concentration	0.109	0.070	0.074	0.084	0.075	0.088	0.076	0.078	0.078	0.095	0.080	0.079	0.085	0.084	0.093	0.077	0.081	0.077
Days Above State Standard	4	0	1	1	0	1	0	0	0	3	0	1	0	2	0	0	0	0
Days Above Nat. 1-Hour Standard	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									51	54	57	55	45	86	50	50	50	91
Maximum Annual Geometric Mean									20.8	23.2	20.2	21.2	18.0	14.2	18.0	17.7	17.2	19.6
Days Above State 24-Hour Standard									1	2	3	1	0	4	0	0	0	7
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	3.8	3.8	2.9	2.7	2.6	2.4		2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.1	1.9
Maximum 1-Hour Concentration	5.0	4.0	6.0	3.0	5.0	6.0	4.0	5.0	6.0	5.0	5.0	4.0	4.0	4.0	4.6	3.2	5.5	4.4
Maximum 8-Hour Concentration	3.6	2.9	2.6	2.1	3.0	3.3	2.3	2.3	2.4	2.4	2.5	2.5	2.9	2.7	2.1	1.8	2.6	1.8
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.128	0.112	0.101	0.068	0.066	0.072	0.083	0.083	0.077	0.072	0.071	0.068	0.062	0.064	0.064	0.062	0.058	0.056
Maximum 1-Hour Concentration	0.130	0.080	0.070	0.060	0.060	0.090	0.110	0.070	0.070	0.070	0.060	0.060	0.070	0.070	0.067	0.054	0.060	0.056
Maximum Annual Average	0.015	0.015	0.012	0.011	0.014	0.015	0.014	0.013	0.014	0.014	0.012	0.011	0.012	0.012	0.012	0.011	0.011	0.010

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.00							
Maximum 1-Hour Concentration	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01							

Table 5-50

North Central Coast Air Basin

County: San Benito

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.141	0.129	0.119	0.108	0.104	0.113	0.109	0.146	0.136	0.131	0.115	0.114	0.115	0.111	0.107	0.106	0.112	0.112
National 1-Hour Design Value	0.120	0.120	0.120	0.110	0.100	0.100	0.100	0.134	0.134	0.139	0.120	0.110	0.110	0.110	0.110	0.104	0.114	0.114
National 8-Hour Design Value	0.087	0.089	0.075	0.083	0.076	0.088	0.074	0.104	0.088	0.080	0.085	0.084	0.084	0.082	0.079	0.083	0.095	0.077
Maximum 1-Hour Concentration	0.140	0.140	0.100	0.110	0.100	0.110	0.100	0.146	0.127	0.140	0.120	0.140	0.110	0.110	0.101	0.138	0.120	0.112
Maximum 8-Hour Concentration	0.118	0.114	0.078	0.089	0.084	0.091	0.084	0.113	0.097	0.100	0.095	0.109	0.090	0.088	0.084	0.102	0.102	0.091
Days Above State Standard	12	7	1	5	6	11	1	37	14	8	10	9	9	8	6	7	16	1
Days Above Nat. 1-Hour Standard	1	2	0	0	0	0	0	5	1	1	0	1	0	0	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									71	58	48	55	17	61	37	50	38	34
Maximum Annual Geometric Mean									21.2	22.2	19.1	20.5		15.6	14.9	13.6	13.9	16.6
Days Above State 24-Hour Standard									2	1	0	1	0	2	0	0	0	0
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.130	0.098	0.090	0.099														
Maximum 1-Hour Concentration	0.110	0.120	0.070	0.110	0.060													
Maximum Annual Average	0.017	0.011	0.009	0.009														

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-51

North Central Coast Air Basin

County: Santa Cruz

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.102	0.099	0.098	0.091	0.089	0.103	0.096	0.098	0.094	0.093	0.084	0.084	0.082	0.110	0.102	0.102	0.098	0.095
National 1-Hour Design Value	0.100	0.100	0.100	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.080	0.090	0.080	0.100	0.100	0.100	0.094	0.091
National 8-Hour Design Value	0.068	0.074	0.069	0.064	0.064	0.076	0.063	0.064	0.063	0.060	0.060	0.059	0.066	0.080	0.072	0.066	0.075	0.063
Maximum 1-Hour Concentration	0.110	0.100	0.090	0.100	0.080	0.110	0.090	0.090	0.080	0.100	0.100	0.120	0.090	0.100	0.094	0.097	0.107	0.089
Maximum 8-Hour Concentration	0.089	0.080	0.074	0.071	0.073	0.089	0.078	0.073	0.070	0.088	0.080	0.083	0.075	0.086	0.079	0.070	0.088	0.071
Days Above State Standard	8	3	0	1	0	2	0	0	0	1	1	2	0	7	0	1	2	0
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (μg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									65	51	49	49	36	102	106	152	115	113
Maximum Annual Geometric Mean											22.3	22.8		19.2	27.6	29.5	27.7	31.7
Days Above State 24-Hour Standard									3	1	0	0	0	8	5	12	12	12
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator								1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.8
Maximum 1-Hour Concentration								1.0	2.0	3.0	2.0	1.0	2.0	1.0	2.2	1.4	3.0	0.9
Maximum 8-Hour Concentration								1.0	1.3	1.3	1.0	1.0	1.2	1.0	1.3	0.9	1.0	0.7
Days Above State 8-Hour Standard								0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard								0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.082							0.044	0.049	0.049	0.050	0.049	0.048	0.044	0.051	0.052	0.049	0.046
Maximum 1-Hour Concentration	0.070	0.070					0.040	0.050	0.050	0.040	0.050	0.040	0.040	0.050	0.045	0.053	0.042	0.031
Maximum Annual Average	0.012							0.005	0.007	0.008	0.007	0.009	0.006	0.006	0.005	0.005	0.005	0.004

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator								0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.04	0.04	0.03
Maximum 1-Hour Concentration							0.01	0.03	0.02	0.02	0.03	0.02	0.01	0.05	0.04	0.06	0.01	0.01

Table 5-52

North Coast Air Basin

County: Del Norte

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.050								0.050	0.066	0.063	0.063	0.062	0.063	0.062		
National 1-Hour Design Value		0.040								0.050	0.060	0.060	0.060	0.060	0.060	0.060		
National 8-Hour Design Value		0.039								0.041	0.054	0.050	0.051	0.049	0.052	0.047		
Maximum 1-Hour Concentration		0.050								0.050	0.070	0.060	0.070	0.060	0.064	0.056		
Maximum 8-Hour Concentration		0.043								0.043	0.060	0.051	0.061	0.054	0.062	0.053		
Days Above State Standard		0								0	0	0	0	0	0	0		
Days Above Nat. 1-Hour Standard		0								0	0	0	0	0	0	0		

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									46							41	42	58
Maximum Annual Geometric Mean																17.5		18.8
Days Above State 24-Hour Standard									0							0	0	1
Calc. Days Above Nat. 24-Hour Std.									0							0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-53

North Coast Air Basin

County: Humboldt

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.070										0.049						
National 1-Hour Design Value		0.060									0.030	0.040	0.040					
National 8-Hour Design Value		0.048									0.030	0.036	0.033					
Maximum 1-Hour Concentration		0.070									0.040	0.050	0.040					
Maximum 8-Hour Concentration		0.051									0.031	0.043	0.040					
Days Above State Standard		0									0	0	0					
Days Above Nat. 1-Hour Standard		0									0	0	0					

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									98	92	83				77	68	87	56
Maximum Annual Geometric Mean									31.7	28.2	24.4				21.1	16.9	15.9	18.8
Days Above State 24-Hour Standard									12	6	5				2	1	2	1
Calc. Days Above Nat. 24-Hour Std.									0	0	0				0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator										4.6								
Maximum 1-Hour Concentration										10.0	9.0							
Maximum 8-Hour Concentration										4.5	3.5							
Days Above State 8-Hour Standard										0	0							
Days Above Nat. 8-Hour Standard										0	0							

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration		0.02																

Table 5-54

North Coast Air Basin

County: Mendocino

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.088	0.086	0.079	0.076	0.076	0.073	0.074	0.084						0.073	0.075	0.075	0.076	0.074
National 1-Hour Design Value	0.080	0.080	0.080	0.080	0.070	0.070	0.070	0.080	0.080				0.050	0.060	0.074	0.080	0.073	0.069
National 8-Hour Design Value	0.056	0.058	0.054	0.050	0.050	0.050	0.058	0.061	0.066				0.039	0.056	0.058	0.057	0.043	0.055
Maximum 1-Hour Concentration	0.080	0.080	0.080	0.070	0.070	0.070	0.070	0.090	0.090				0.060	0.080	0.087	0.084	0.058	0.071
Maximum 8-Hour Concentration	0.060	0.063	0.065	0.058	0.063	0.056	0.063	0.076	0.076				0.044	0.065	0.062	0.066	0.050	0.061
Days Above State Standard	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									101	82	60	74	51	54	62	54	56	66
Maximum Annual Geometric Mean									25.1	26.4	20.9	22.5	20.1	20.5	20.2	23.4	21.6	20.7
Days Above State 24-Hour Standard									12	7	5	4	1	2	6	2	1	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator						5.2								2.4		3.2	3.4	3.3
Maximum 1-Hour Concentration	6.0				6.0	8.0	6.0		1.0				1.0	6.0		5.4	4.8	7.4
Maximum 8-Hour Concentration	2.4				4.1	5.5	3.1		1.0				0.6	2.4		3.2	2.7	3.2
Days Above State 8-Hour Standard	0				0	0	0		0				0	0		0	0	0
Days Above Nat. 8-Hour Standard	0				0	0	0		0				0	0		0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator														0.054	0.054	0.053	0.050	0.048
Maximum 1-Hour Concentration									0.030				0.080	0.050	0.079	0.078	0.044	0.061
Maximum Annual Average														0.009	0.009	0.009	0.013	0.010

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator														0.01	0.02			
Maximum 1-Hour Concentration									0.03				0.03	0.01	0.01			

Table 5-55

North Coast Air Basin

County: Sonoma

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													0.085	0.088	0.089	0.090	0.088	0.091
National 1-Hour Design Value													0.080	0.090	0.090	0.090	0.090	0.090
National 8-Hour Design Value													0.064	0.068	0.070	0.071	0.066	0.081
Maximum 1-Hour Concentration													0.090	0.090	0.100	0.100	0.080	0.100
Maximum 8-Hour Concentration													0.073	0.074	0.080	0.090	0.071	0.091
Days Above State Standard													0	0	1	1	0	2
Days Above Nat. 1-Hour Standard													0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									86	85	266	78	58	53	57	43	40	54
Maximum Annual Geometric Mean									23.3	25.7	19.3	22.2		17.3	16.8	12.2	14.7	14.6
Days Above State 24-Hour Standard									10	11	6	10	2	2	2	0	0	2
Calc. Days Above Nat. 24-Hour Std.									0	0	6	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-56

A portion of Sonoma County lies within the San Francisco Bay Area Air Basin.

North Coast Air Basin

County: Trinity

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.094																
National 1-Hour Design Value		0.080																
National 8-Hour Design Value		0.073																
Maximum 1-Hour Concentration		0.090																
Maximum 8-Hour Concentration		0.086																
Days Above State Standard		0																
Days Above Nat. 1-Hour Standard		0																

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									125							41	72	54
Maximum Annual Geometric Mean																15.5	15.0	15.5
Days Above State 24-Hour Standard									7							0	2	1
Calc. Days Above Nat. 24-Hour Std.									0							0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator								3.4										
Maximum 1-Hour Concentration								4.0										
Maximum 8-Hour Concentration								3.0										
Days Above State 8-Hour Standard								0										
Days Above Nat. 8-Hour Standard								0										

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-57

Northeast Plateau Air Basin

County: Lassen

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
National 1-Hour Design Value																		
National 8-Hour Design Value																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State Standard																		
Days Above Nat. 1-Hour Standard																		

No Monitoring Data Available

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																	42	84
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard																	0	3
Calc. Days Above Nat. 24-Hour Std.																	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-58

Northeast Plateau Air Basin

County: Modoc

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
National 1-Hour Design Value																		
National 8-Hour Design Value																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State Standard																		
Days Above Nat. 1-Hour Standard																		

No Monitoring Data Available

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration															101	78	74	97
Maximum Annual Geometric Mean																25.4		
Days Above State 24-Hour Standard															3	9	2	1
Calc. Days Above Nat. 24-Hour Std.															0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-59

Northeast Plateau Air Basin

County: Siskiyou

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator			0.071	0.072	0.074	0.076	0.079	0.081	0.082	0.083	0.082		0.081	0.073	0.075	0.074		0.074
National 1-Hour Design Value		0.060	0.070	0.070	0.070	0.070	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.070	0.070	0.070	0.070	0.070
National 8-Hour Design Value		0.051	0.063	0.058	0.060	0.068	0.068	0.075	0.066	0.068	0.070	0.040	0.061	0.054	0.063	0.058	0.059	0.060
Maximum 1-Hour Concentration		0.060	0.070	0.070	0.080	0.080	0.080	0.090	0.080	0.080	0.080	0.050	0.080	0.070	0.080	0.070	0.070	0.082
Maximum 8-Hour Concentration		0.058	0.066	0.063	0.066	0.075	0.070	0.081	0.071	0.076	0.077	0.046	0.074	0.070	0.069	0.063	0.064	0.074
Days Above State Standard		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 1-Hour Standard		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									92	59	63	60	74	60	61	46	188	40
Maximum Annual Geometric Mean									21.9	21.7	20.2		20.9	19.2	20.3	16.4	16.0	10.8
Days Above State 24-Hour Standard									4	5	5	2	4	1	1	0	1	0
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	6	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration								12.0										
Maximum 8-Hour Concentration								10.4										
Days Above State 8-Hour Standard								1										
Days Above Nat. 8-Hour Standard								1										

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-60

Sacramento Valley Air Basin

County: Butte

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.103	0.099	0.094	0.087	0.086	0.094	0.097	0.102	0.103	0.105	0.103	0.098	0.094	0.091	0.096	0.098	0.095	0.091
National 1-Hour Design Value	0.100	0.100	0.100	0.090	0.080	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.090	0.090	0.095	0.097	0.097	0.091
National 8-Hour Design Value	0.071	0.069	0.073	0.066	0.071	0.085	0.079	0.084	0.084	0.081	0.079	0.073	0.078	0.076	0.083	0.077	0.074	0.067
Maximum 1-Hour Concentration	0.110	0.100	0.090	0.080	0.090	0.100	0.110	0.110	0.100	0.100	0.130	0.100	0.090	0.100	0.099	0.105	0.108	0.087
Maximum 8-Hour Concentration	0.079	0.079	0.076	0.069	0.075	0.094	0.088	0.089	0.093	0.088	0.095	0.085	0.078	0.084	0.092	0.087	0.085	0.072
Days Above State Standard	4	1	0	0	0	4	2	5	8	4	2	1	0	1	3	1	2	0
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									115	91	97	123	83	78	93	64	66	108
Maximum Annual Geometric Mean									36.7	31.9	32.2	34.0		24.7	30.0	25.0	22.0	21.5
Days Above State 24-Hour Standard									20	15	13	24	13	11	7	9	3	4
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	4.5	8.4	9.3	8.6	8.6	8.6	10.0	10.2	10.7	10.1	10.4	9.8	5.0	8.9	6.2	5.9	5.9	5.6
Maximum 1-Hour Concentration	16.0	15.0	17.0	12.0	14.0	15.0	20.0	12.0	17.0	15.0	17.0	15.0	14.0	9.0	9.4	8.5	8.7	7.0
Maximum 8-Hour Concentration	8.2	8.4	12.4	6.5	10.9	9.8	10.4	8.6	12.3	10.0	10.8	9.2	6.8	5.8	5.7	4.8	6.1	5.1
Days Above State 8-Hour Standard	0	0	3	0	1	2	3	0	2	1	1	2	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	3	0	1	2	2	0	2	1	1	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.097	0.081	0.070	0.073	0.081	0.084	0.084	0.089	0.090	0.089	0.081	0.081	0.082	0.082	0.078	0.077	0.072	0.072
Maximum 1-Hour Concentration	0.100	0.060	0.080	0.110	0.160	0.080	0.080	0.090	0.100	0.080	0.080	0.070	0.080	0.090	0.080	0.074	0.070	0.061
Maximum Annual Average	0.015	0.013	0.015	0.011	0.014	0.014	0.016	0.017	0.016	0.016	0.015	0.015	0.016	0.016	0.015	0.014	0.013	0.013

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.00																
Maximum 1-Hour Concentration		0.01																

Table 5-61

Sacramento Valley Air Basin

County: Colusa

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.105	0.105	0.102	0.110	0.111	0.109	0.112					0.108	0.107	0.102	0.102	0.109	0.101
National 1-Hour Design Value	0.100	0.100	0.110	0.100	0.110	0.100	0.110	0.110				0.090	0.100	0.100	0.100	0.101	0.102	0.098
National 8-Hour Design Value	0.079	0.083	0.076	0.079	0.088	0.084	0.085	0.094				0.074	0.084	0.084	0.082	0.084	0.083	0.074
Maximum 1-Hour Concentration	0.130	0.100	0.110	0.090	0.110	0.110	0.110	0.120				0.100	0.110	0.100	0.107	0.106	0.111	0.093
Maximum 8-Hour Concentration	0.089	0.085	0.091	0.086	0.094	0.091	0.089	0.103				0.084	0.093	0.086	0.090	0.091	0.092	0.082
Days Above State Standard	8	6	3	0	12	7	12	28				1	8	3	4	6	6	0
Days Above Nat. 1-Hour Standard	1	0	0	0	0	0	0	0				0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									98	72	93	102	84	70	57	93	57	57
Maximum Annual Geometric Mean									27.3	26.9	29.0	33.4	25.0	21.5	26.3	28.6	22.1	21.9
Days Above State 24-Hour Standard									12	6	9	19	8	4	5	18	3	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-62

Sacramento Valley Air Basin

County: Glenn

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.106	0.101	0.102	0.102	0.105	0.107	0.101	0.108			0.102	0.104	0.101	0.102	0.100	0.098	0.098	0.097
National 1-Hour Design Value	0.100	0.100	0.100	0.100	0.100	0.110	0.100	0.110			0.090	0.100	0.100	0.100	0.100	0.096	0.098	0.092
National 8-Hour Design Value	0.081	0.074	0.079	0.083	0.078	0.083	0.081	0.090			0.080	0.076	0.088	0.079	0.082	0.080	0.077	0.078
Maximum 1-Hour Concentration	0.120	0.100	0.100	0.110	0.100	0.110	0.100	0.120			0.100	0.100	0.110	0.100	0.099	0.103	0.098	0.096
Maximum 8-Hour Concentration	0.089	0.084	0.080	0.095	0.089	0.090	0.084	0.098			0.086	0.083	0.089	0.084	0.087	0.088	0.082	0.081
Days Above State Standard	6	1	2	4	1	5	2	9			3	1	6	1	3	1	1	1
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									93	73	63	81	111	75	80	88	75	72
Maximum Annual Geometric Mean									30.2	24.4	25.9	27.9	24.2	20.8		25.4	19.6	19.2
Days Above State 24-Hour Standard									12	3	5	18	9	4	4	13	5	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-63

Sacramento Valley Air Basin

County: Placer

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.180	0.149	0.144	0.142	0.144	0.153	0.153	0.149	0.153	0.148	0.150	0.138	0.145	0.138	0.137	0.135	0.139	0.134
National 1-Hour Design Value	0.180	0.150	0.150	0.140	0.150	0.160	0.160	0.150	0.160	0.150	0.150	0.140	0.140	0.140	0.140	0.134	0.131	0.131
National 8-Hour Design Value	0.115	0.105	0.101	0.109	0.109	0.118	0.105	0.110	0.111	0.095	0.118	0.104	0.111	0.104	0.106	0.108	0.103	0.085
Maximum 1-Hour Concentration	0.160	0.160	0.160	0.160	0.180	0.180	0.170	0.180	0.180	0.120	0.150	0.130	0.170	0.150	0.133	0.148	0.135	0.113
Maximum 8-Hour Concentration	0.123	0.118	0.130	0.119	0.113	0.128	0.124	0.121	0.120	0.098	0.128	0.115	0.123	0.120	0.118	0.120	0.111	0.096
Days Above State Standard	54	51	39	36	39	35	45	41	55	23	42	36	46	23	35	35	33	10
Days Above Nat. 1-Hour Standard	8	12	4	6	5	8	4	7	13	0	11	4	8	4	5	3	3	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									70	67	58	68	48	52	65	84	98	50
Maximum Annual Geometric Mean									29.2	25.9	23.4			23.4	23.3	22.8	19.2	20.8
Days Above State 24-Hour Standard									5	3	2	2	0	1	3	5	2	0
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													2.3	2.6	2.9	2.6	2.5	2.2
Maximum 1-Hour Concentration												4.0	9.0	6.0	4.7	3.9	4.5	3.7
Maximum 8-Hour Concentration												3.3	2.3	2.8	3.0	2.2	2.8	2.2
Days Above State 8-Hour Standard												0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard												0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													0.090	0.088	0.090	0.096	0.098	0.095
Maximum 1-Hour Concentration												0.050	0.080	0.090	0.089	0.093	0.100	0.080
Maximum Annual Average													0.015	0.018	0.018	0.017	0.016	0.015

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-64

Portions of Placer County lie within the Lake Tahoe and Mountain Counties Air Basins.

Sacramento Valley Air Basin

County: Sacramento

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.172	0.181	0.175	0.163	0.162	0.173	0.173	0.168	0.170	0.166	0.162	0.153	0.158	0.159	0.148	0.149	0.154	0.141
National 1-Hour Design Value	0.190	0.170	0.160	0.160	0.180	0.180	0.180	0.160	0.160	0.160	0.160	0.150	0.150	0.150	0.143	0.145	0.145	0.133
National 8-Hour Design Value	0.108	0.120	0.116	0.113	0.124	0.126	0.113	0.113	0.125	0.105	0.099	0.123	0.108	0.103	0.106	0.112	0.104	0.091
Maximum 1-Hour Concentration	0.180	0.180	0.160	0.170	0.210	0.200	0.160	0.170	0.170	0.170	0.150	0.190	0.150	0.150	0.145	0.156	0.157	0.143
Maximum 8-Hour Concentration	0.133	0.143	0.133	0.125	0.138	0.161	0.125	0.128	0.130	0.134	0.108	0.140	0.123	0.119	0.122	0.129	0.126	0.108
Days Above State Standard	43	58	56	52	58	48	48	74	86	60	29	55	52	26	36	39	49	21
Days Above Nat. 1-Hour Standard	15	18	17	12	23	18	22	17	30	8	8	12	9	6	6	10	7	3

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									99	139	153	134	89	118	104	85	86	108
Maximum Annual Geometric Mean									34.8	35.6	36.0	37.7	29.1	25.3	26.1	26.3	22.2	20.9
Days Above State 24-Hour Standard									16	14	28	28	12	16	13	17	12	6
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	12.7	12.9	13.4	13.2	13.0	13.1	14.6	14.4	13.4	14.1	14.7	14.8	12.9	10.7	9.6	9.3	8.5	7.7
Maximum 1-Hour Concentration	18.0	17.0	17.0	19.0	18.0	17.0	20.0	15.0	15.0	18.0	16.0	15.0	12.0	12.0	10.8	9.8	8.7	9.5
Maximum 8-Hour Concentration	14.3	13.5	15.1	14.1	12.4	13.3	13.9	10.0	11.6	15.9	14.0	12.3	8.6	9.4	8.5	7.4	7.2	7.2
Days Above State 8-Hour Standard	10	7	9	6	6	12	11	4	10	19	14	7	0	2	0	0	0	0
Days Above Nat. 8-Hour Standard	9	7	8	3	5	11	10	3	8	18	12	6	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.183	0.120	0.119	0.115	0.103	0.110	0.112	0.115	0.123	0.117	0.116	0.122	0.128	0.126	0.115	0.106	0.101	0.094
Maximum 1-Hour Concentration	0.140	0.110	0.120	0.110	0.100	0.130	0.120	0.100	0.180	0.130	0.160	0.170	0.190	0.120	0.111	0.099	0.145	0.092
Maximum Annual Average	0.028	0.021	0.019	0.016	0.019	0.021	0.022	0.022	0.025	0.025	0.023	0.024	0.021	0.022	0.022	0.022	0.022	0.019

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.09	0.02	0.02	0.02	0.02	0.02	0.02		0.05	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02
Maximum 1-Hour Concentration	0.02	0.02	0.02	0.02	0.02	0.08	0.02		0.05	0.04	0.04	0.03	0.02	0.04	0.03	0.01	0.01	0.04

Table 5-65

Sacramento Valley Air Basin

County: Shasta

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.117	0.116	0.111	0.117	0.110	0.115	0.115	0.122	0.123	0.119	0.129	0.119	0.117	0.102	0.111	0.105	0.114	0.118
National 1-Hour Design Value	0.120	0.110	0.110	0.110	0.100	0.100	0.110	0.120	0.120	0.120	0.110	0.110	0.110	0.110	0.110	0.101	0.110	0.110
National 8-Hour Design Value	0.095	0.098	0.083	0.086	0.079	0.091	0.088	0.095	0.084	0.079	0.094	0.090	0.089	0.078	0.092	0.079	0.095	0.087
Maximum 1-Hour Concentration	0.110	0.120	0.100	0.100	0.100	0.120	0.120	0.130	0.120	0.090	0.130	0.110	0.110	0.110	0.113	0.099	0.110	0.119
Maximum 8-Hour Concentration	0.098	0.100	0.091	0.094	0.091	0.105	0.098	0.109	0.105	0.084	0.110	0.095	0.091	0.089	0.105	0.084	0.100	0.108
Days Above State Standard	22	22	5	7	2	10	8	25	5	0	13	12	10	1	7	3	16	8
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									60	91	80	83	86	91	64	55	51	63
Maximum Annual Geometric Mean									23.5	24.0	21.4	23.5	21.2	17.2	21.6	22.1	21.6	19.6
Days Above State 24-Hour Standard									4	10	11	13	8	8	3	2	1	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator					1.1		3.1			2.3	2.3	2.3	1.9	2.0				
Maximum 1-Hour Concentration			9.0	10.0	3.0	2.0	5.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.5			
Maximum 8-Hour Concentration			3.4	6.0	1.1	1.1	2.8	2.5	1.8	2.5	2.3	2.0	1.9	2.1	1.7			
Days Above State 8-Hour Standard			0	0	0	0	0	0	0	0	0	0	0	0	0			
Days Above Nat. 8-Hour Standard			0	0	0	0	0	0	0	0	0	0	0	0	0			

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator							0.091	0.093	0.093	0.091	0.068	0.069	0.069					
Maximum 1-Hour Concentration						0.020	0.090	0.100	0.100	0.080	0.070	0.070	0.050					
Maximum Annual Average							0.014	0.015	0.013	0.013	0.012	0.012	0.012					

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-66

Sacramento Valley Air Basin

County: Solano

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.116	0.109	0.106	0.094	0.085	0.081	0.093	0.112	0.108	0.112						0.114	0.113	0.113
National 1-Hour Design Value	0.130	0.110	0.110	0.090	0.080	0.080	0.090	0.110	0.110	0.120	0.100					0.102	0.106	0.106
National 8-Hour Design Value	0.085	0.073	0.053	0.043	0.060	0.041	0.065	0.094	0.080	0.075	0.070					0.080	0.080	0.072
Maximum 1-Hour Concentration	0.140	0.110	0.100	0.080	0.100	0.070	0.090	0.120	0.100	0.120	0.110					0.115	0.126	0.105
Maximum 8-Hour Concentration	0.110	0.086	0.065	0.053	0.070	0.053	0.066	0.103	0.089	0.102	0.089					0.091	0.102	0.083
Days Above State Standard	7	2	1	0	1	0	0	12	2	4	1					6	8	3
Days Above Nat. 1-Hour Standard	1	0	0	0	0	0	0	0	0	0	0					0	1	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									81	109	96	98	70	53	76	62	45	74
Maximum Annual Geometric Mean													21.2	20.3	19.2	16.8	15.4	14.5
Days Above State 24-Hour Standard									4	5	6	12	4	1	3	2	0	1
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration	2.0								4.0									
Maximum 8-Hour Concentration	1.1								1.8									
Days Above State 8-Hour Standard	0								0									
Days Above Nat. 8-Hour Standard	0								0									

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-67

A portion of Solano County lies within the San Francisco Bay Area Air Basin.

Sacramento Valley Air Basin

County: Sutter

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator			0.105	0.123	0.127	0.125	0.125	0.120	0.128	0.123	0.121	0.106	0.110	0.125	0.121	0.120	0.115	0.114
National 1-Hour Design Value	0.120	0.120	0.100	0.130	0.130	0.120	0.120	0.120	0.130	0.120	0.120	0.100	0.110	0.110	0.113	0.113	0.113	0.107
National 8-Hour Design Value	0.033	0.065	0.085	0.088	0.095	0.091	0.094	0.095	0.099	0.083	0.076	0.080	0.090	0.098	0.096	0.098	0.096	0.081
Maximum 1-Hour Concentration	0.060	0.090	0.140	0.130	0.130	0.120	0.140	0.140	0.150	0.100	0.110	0.110	0.120	0.140	0.115	0.126	0.116	0.105
Maximum 8-Hour Concentration	0.045	0.078	0.104	0.109	0.101	0.098	0.104	0.108	0.104	0.088	0.084	0.095	0.109	0.109	0.101	0.104	0.103	0.092
Days Above State Standard	0	0	10	11	22	18	21	23	41	4	2	10	29	13	25	21	28	5
Days Above Nat. 1-Hour Standard	0	0	2	2	1	0	2	1	2	0	0	0	0	2	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									109	103	96	108	79	78	154	128	82	98
Maximum Annual Geometric Mean									32.2		35.6	34.6	31.4	28.8	31.1	29.5	25.5	25.3
Days Above State 24-Hour Standard									14	13	16	22	13	11	7	16	5	4
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator												10.1	8.1	5.8	5.7	5.2	4.8	4.6
Maximum 1-Hour Concentration												12.0	9.0	10.0	8.8	7.5	7.7	6.1
Maximum 8-Hour Concentration												8.5	6.3	7.3	6.1	4.7	4.7	4.2
Days Above State 8-Hour Standard												0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard												0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator												0.108	0.089	0.088	0.086	0.083	0.077	0.078
Maximum 1-Hour Concentration												0.100	0.090	0.090	0.075	0.074	0.068	0.073
Maximum Annual Average												0.018	0.017	0.017	0.016	0.013	0.012	0.014

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-68

Sacramento Valley Air Basin

County: Tehama

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator											0.119	0.115	0.113	0.107	0.104	0.108	0.102	0.099
National 1-Hour Design Value											0.110	0.110	0.110	0.100	0.100	0.100	0.098	0.099
National 8-Hour Design Value											0.095	0.084	0.090	0.088	0.083	0.091	0.083	0.081
Maximum 1-Hour Concentration											0.120	0.110	0.100	0.100	0.100	0.110	0.108	0.101
Maximum 8-Hour Concentration											0.100	0.085	0.091	0.094	0.088	0.104	0.084	0.094
Days Above State Standard											15	6	9	5	2	10	4	2
Days Above Nat. 1-Hour Standard											0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									99	68	67	85	75	67	74	63	56	58
Maximum Annual Geometric Mean									36.6	28.4	26.4	26.7	26.0	22.0	26.2	23.4		19.0
Days Above State 24-Hour Standard									19	7	4	11	5	3	6	5	1	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

No Monitoring Data Available

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-69

Sacramento Valley Air Basin

County: Yolo

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.138	0.134	0.132	0.129	0.126	0.124	0.119	0.124	0.122	0.117	0.115	0.100	0.112	0.110	0.106	0.107	0.109	0.111
National 1-Hour Design Value	0.130	0.130	0.130	0.130	0.120	0.120	0.130	0.140	0.110	0.110	0.120	0.100	0.110	0.110	0.110	0.103	0.108	0.108
National 8-Hour Design Value	0.099	0.111	0.091	0.083	0.093	0.086	0.083	0.094	0.088	0.075	0.088	0.079	0.086	0.076	0.077	0.085	0.088	0.071
Maximum 1-Hour Concentration	0.140	0.130	0.120	0.120	0.140	0.140	0.140	0.140	0.120	0.100	0.140	0.100	0.120	0.130	0.100	0.114	0.122	0.104
Maximum 8-Hour Concentration	0.109	0.115	0.105	0.094	0.098	0.098	0.100	0.128	0.098	0.084	0.106	0.092	0.096	0.098	0.083	0.091	0.104	0.086
Days Above State Standard	23	28	18	13	20	13	12	25	32	3	9	4	14	1	4	9	13	2
Days Above Nat. 1-Hour Standard	1	4	0	0	2	1	2	3	0	0	1	0	0	1	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									96	113	147	136	106	96	98	145	77	126
Maximum Annual Geometric Mean									33.6		25.8		30.5	26.1	30.3	28.9	23.1	24.1
Days Above State 24-Hour Standard									19	8	10	22	22	12	8	13	8	3
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	4.1	4.7	5.1	4.6	4.2	3.6	4.4	4.6	4.6	4.6	4.9		3.8				1.4	1.8
Maximum 1-Hour Concentration	10.0	13.0	9.0	10.0	9.0	12.0	13.0	14.0	9.0	13.0	12.0	7.0	7.0	6.0	10.0	5.3	2.4	2.8
Maximum 8-Hour Concentration	5.1	4.3	6.4	3.8	4.1	4.9	6.0	8.4	4.9	5.4	5.0	3.5	3.9	3.4	6.6	3.1	1.8	1.8
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																	0.064	0.062
Maximum 1-Hour Concentration																	0.061	0.057
Maximum Annual Average																	0.011	0.010

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-70

Sacramento Valley Air Basin

County: Yuba

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
National 1-Hour Design Value																		
National 8-Hour Design Value																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State Standard																		
Days Above Nat. 1-Hour Standard																		

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration																		
Maximum Annual Geometric Mean																		
Days Above State 24-Hour Standard																		
Calc. Days Above Nat. 24-Hour Std.																		

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum Annual Average																		

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-71

Salton Sea Air Basin

County: Imperial

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.154	0.121	0.117	0.114		0.122	0.093	0.092	0.110	0.111	0.117	0.108	0.150	0.155	0.154	0.163	0.155	0.157
National 1-Hour Design Value	0.130	0.120	0.120	0.110	0.100	0.120	0.120	0.090	0.110	0.110	0.110	0.120	0.150	0.150	0.150	0.180	0.180	0.160
National 8-Hour Design Value	0.105	0.088	0.074	0.076	0.030	0.097	0.071	0.070	0.083	0.078	0.071	0.079	0.104	0.105	0.105	0.108	0.101	0.105
Maximum 1-Hour Concentration	0.150	0.180	0.100	0.110	0.050	0.130	0.090	0.090	0.120	0.110	0.110	0.180	0.150	0.210	0.180	0.232	0.180	0.160
Maximum 8-Hour Concentration	0.114	0.110	0.081	0.080	0.031	0.103	0.080	0.081	0.099	0.089	0.083	0.135	0.118	0.129	0.116	0.116	0.118	0.120
Days Above State Standard	47	15	2	3	0	16	0	0	17	4	6	9	46	50	75	83	69	69
Days Above Nat. 1-Hour Standard	9	1	0	0	0	1	0	0	0	0	0	3	8	16	8	22	10	10

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									368	676	258	243	103	175	258	229	441	532
Maximum Annual Geometric Mean									52.2	61.1	49.5	56.6	43.7	47.2	46.5	59.6	64.7	76.9
Days Above State 24-Hour Standard									40	41	38	44	26	34	49	58	61	59
Calc. Days Above Nat. 24-Hour Std.									6	24	12	6	0	12	18	12	48	36

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															17.4	18.8	17.8	17.5
Maximum 1-Hour Concentration															30.6	32.0	27.0	24.0
Maximum 8-Hour Concentration															13.1	22.9	22.1	17.8
Days Above State 8-Hour Standard															8	13	9	13
Days Above Nat. 8-Hour Standard															8	12	7	10

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.153	0.182	0.178	0.165
Maximum 1-Hour Concentration															0.227	0.217	0.164	0.128
Maximum Annual Average															0.015	0.016	0.014	0.015

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.05	0.04	0.04	0.04
Maximum 1-Hour Concentration															0.06	0.04	0.04	0.04

Table 5-72

Salton Sea Air Basin

County: Riverside

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.217	0.216	0.209	0.194	0.202	0.203	0.197	0.185	0.182	0.180	0.181	0.175	0.168	0.159	0.153	0.153	0.154	0.152
National 1-Hour Design Value	0.200	0.200	0.200	0.190	0.190	0.190	0.190	0.180	0.180	0.180	0.180	0.180	0.170	0.170	0.152	0.158	0.158	0.152
National 8-Hour Design Value	0.155	0.141	0.136	0.130	0.141	0.134	0.130	0.131	0.130	0.126	0.123	0.129	0.115	0.113	0.114	0.107	0.116	0.101
Maximum 1-Hour Concentration	0.210	0.190	0.190	0.190	0.200	0.240	0.180	0.170	0.200	0.190	0.170	0.180	0.170	0.170	0.165	0.160	0.160	0.155
Maximum 8-Hour Concentration	0.163	0.151	0.143	0.150	0.165	0.160	0.143	0.141	0.138	0.160	0.130	0.149	0.129	0.126	0.131	0.132	0.125	0.117
Days Above State Standard	103	131	96	95	100	93	80	85	99	117	82	80	82	82	78	56	60	45
Days Above Nat. 1-Hour Standard	49	62	38	50	40	28	31	40	35	38	27	24	24	21	13	11	12	4

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									115	712	520	340	175	125	97	199	215	182
Maximum Annual Geometric Mean									42.7	66.4	64.9	59.8	39.2	40.6	45.3	47.2	48.3	46.4
Days Above State 24-Hour Standard									24	40	41	37	20	25	23	27	31	25
Calc. Days Above Nat. 24-Hour Std.									0	24	24	18	6	0	0	6	12	12

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	3.4	3.6	3.6	3.1	2.5	2.5	2.6	2.6	2.5	2.3	2.3	2.3	2.2	2.1	1.9	1.7	1.6	1.5
Maximum 1-Hour Concentration	8.0	6.0	5.0	7.0	4.0	5.0	5.0	5.0	4.0	6.0	5.0	5.0	5.0	6.0	3.9	3.3	3.2	2.7
Maximum 8-Hour Concentration	3.6	3.8	2.6	2.8	2.1	2.6	3.6	2.9	2.1	2.9	2.3	2.5	2.4	2.0	2.0	1.5	1.6	1.3
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.115	0.109	0.141	0.150	0.150	0.124	0.085	0.083	0.084	0.089	0.092	0.092	0.088	0.088	0.088	0.088	0.084	0.082
Maximum 1-Hour Concentration	0.130	0.090	0.150	0.160	0.090	0.080	0.080	0.080	0.110	0.090	0.090	0.090	0.090	0.090	0.080	0.082	0.080	0.069
Maximum Annual Average	0.019	0.019	0.025	0.027	0.014	0.020	0.019	0.019	0.022	0.024	0.021	0.021	0.021	0.019	0.021	0.021	0.020	0.015

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.03	0.03	0.03	0.02														
Maximum 1-Hour Concentration	0.03	0.01	0.01	0.01														

Table 5-73

Portions of Riverside County lie within the Mojave Desert and South Coast Air Basins.

San Diego Air Basin

County: San Diego

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.234	0.228	0.203	0.188	0.197	0.189	0.179	0.179	0.179	0.186	0.180	0.172	0.164	0.150	0.147	0.148	0.142	0.132
National 1-Hour Design Value	0.350	0.290	0.210	0.200	0.200	0.210	0.190	0.180	0.180	0.190	0.190	0.170	0.170	0.154	0.150	0.146	0.141	0.138
National 8-Hour Design Value	0.159	0.134	0.120	0.139	0.123	0.138	0.123	0.119	0.129	0.139	0.129	0.116	0.110	0.113	0.108	0.108	0.100	0.094
Maximum 1-Hour Concentration	0.230	0.290	0.230	0.280	0.280	0.220	0.190	0.290	0.250	0.250	0.200	0.210	0.170	0.187	0.147	0.162	0.138	0.136
Maximum 8-Hour Concentration	0.174	0.206	0.163	0.176	0.208	0.169	0.144	0.196	0.156	0.194	0.145	0.145	0.134	0.154	0.122	0.123	0.118	0.112
Days Above State Standard	168	192	120	125	146	148	131	127	160	159	139	106	97	90	79	96	51	43
Days Above Nat. 1-Hour Standard	88	78	47	61	51	50	42	40	45	56	39	27	19	14	9	12	2	1

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									81	90	115	81	67	159	129	121	93	125
Maximum Annual Geometric Mean									36.8	41.3	33.4	38.0	33.5	40.0	45.2	39.8	28.4	41.9
Days Above State 24-Hour Standard									18	28	11	20	7	27	25	23	16	22
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	6	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	11.3	10.5	9.5	9.2	9.4	10.6	10.2	10.4	10.2	10.3	10.2	10.0	8.5	7.8	7.7	7.3	7.3	6.3
Maximum 1-Hour Concentration	15.0	15.0	15.0	16.0	16.0	17.0	16.0	14.0	17.0	17.0	18.0	14.0	14.0	11.4	11.0	9.9	12.4	9.3
Maximum 8-Hour Concentration	10.1	11.3	10.3	12.1	8.5	13.0	10.4	9.4	10.3	10.5	9.1	7.9	7.9	7.5	7.5	6.3	7.1	5.3
Days Above State 8-Hour Standard	1	1	1	1	0	5	2	1	5	6	1	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	1	1	1	1	0	3	1	0	2	5	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.233	0.245	0.234	0.225	0.183	0.194	0.193	0.204	0.217	0.233	0.211	0.189	0.169	0.155	0.146	0.130	0.129	0.126
Maximum 1-Hour Concentration	0.220	0.270	0.200	0.200	0.230	0.210	0.220	0.260	0.280	0.230	0.180	0.160	0.190	0.130	0.157	0.140	0.124	0.142
Maximum Annual Average	0.035	0.043	0.030	0.027	0.031	0.032	0.034	0.032	0.035	0.038	0.029	0.029	0.027	0.023	0.024	0.026	0.022	0.024

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.06	0.07	0.08	0.06	0.09	0.05	0.05	0.05	0.05	0.06	0.05	0.06	0.05	0.05	0.07	0.08	0.08	0.08
Maximum 1-Hour Concentration	0.13	0.12	0.13	0.07	0.09	0.08	0.06	0.11	0.09	0.08	0.06	0.11	0.12	0.06	0.10	0.08	0.09	0.08

Table 5-74

San Francisco Bay Area Air Basin

County: Alameda

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.166	0.148	0.142	0.148	0.155	0.157	0.148	0.141	0.143	0.138	0.136	0.129	0.130	0.126	0.117	0.135	0.151	0.149
National 1-Hour Design Value	0.180	0.170	0.170	0.160	0.160	0.160	0.150	0.140	0.140	0.140	0.130	0.130	0.120	0.120	0.120	0.138	0.138	0.138
National 8-Hour Design Value	0.100	0.090	0.079	0.099	0.104	0.095	0.083	0.093	0.090	0.088	0.086	0.080	0.083	0.083	0.083	0.099	0.099	0.072
Maximum 1-Hour Concentration	0.190	0.160	0.150	0.190	0.150	0.150	0.140	0.160	0.150	0.140	0.130	0.140	0.130	0.130	0.129	0.155	0.138	0.114
Maximum 8-Hour Concentration	0.135	0.110	0.097	0.128	0.119	0.106	0.106	0.116	0.096	0.101	0.105	0.093	0.091	0.103	0.092	0.115	0.113	0.085
Days Above State Standard	18	26	12	29	36	27	22	21	27	14	9	19	16	8	7	21	23	6
Days Above Nat. 1-Hour Standard	7	5	4	13	10	7	5	7	4	2	2	1	1	2	2	9	8	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									74	108	137	155	99	84	97	52	71	65
Maximum Annual Geometric Mean									28.0	32.7	27.5	29.9	25.8	22.3	21.7	19.4	20.4	22.0
Days Above State 24-Hour Standard									10	13	12	15	6	4	4	2	1	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	3	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	9.3	8.2	8.0	7.1	7.4	6.7	7.0	6.4	6.6	6.6	6.7	7.0	6.4	5.8	4.8	4.8	4.9	4.4
Maximum 1-Hour Concentration	16.0	12.0	10.0	11.0	12.0	10.0	12.0	10.0	10.0	10.0	8.0	9.0	7.0	7.0	8.7	5.5	6.9	7.9
Maximum 8-Hour Concentration	8.0	6.0	7.5	7.3	8.0	6.1	7.5	5.0	5.6	7.5	6.1	6.8	4.6	4.9	5.6	3.8	3.9	3.6
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.156	0.146	0.136	0.130	0.132	0.138	0.140	0.138	0.139	0.138	0.138	0.133	0.121	0.113	0.092	0.091	0.090	0.089
Maximum 1-Hour Concentration	0.230	0.140	0.120	0.150	0.130	0.140	0.140	0.150	0.140	0.150	0.130	0.150	0.110	0.110	0.097	0.086	0.088	0.086
Maximum Annual Average	0.024	0.027	0.023	0.023	0.025	0.026	0.025	0.025	0.026	0.025	0.023	0.024	0.022	0.022	0.022	0.021	0.022	0.020

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

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San Francisco Bay Area Air Basin

County: Contra Costa

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.138	0.133	0.134	0.136	0.143	0.140	0.128	0.129	0.128	0.129	0.115	0.113	0.112	0.111	0.110	0.121	0.125	0.124
National 1-Hour Design Value	0.150	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.110	0.110	0.110	0.110	0.121	0.130	0.127	0.127
National 8-Hour Design Value	0.098	0.088	0.093	0.090	0.092	0.091	0.084	0.101	0.085	0.086	0.088	0.076	0.081	0.080	0.081	0.088	0.090	0.072
Maximum 1-Hour Concentration	0.140	0.130	0.130	0.150	0.160	0.150	0.120	0.150	0.140	0.110	0.120	0.110	0.110	0.130	0.121	0.152	0.137	0.108
Maximum 8-Hour Concentration	0.124	0.098	0.109	0.101	0.116	0.104	0.093	0.105	0.095	0.098	0.105	0.089	0.093	0.096	0.097	0.114	0.100	0.082
Days Above State Standard	15	20	15	17	18	15	9	22	12	12	7	5	7	10	6	12	15	4
Days Above Nat. 1-Hour Standard	3	2	1	7	3	2	0	3	1	0	0	0	0	2	0	4	1	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									95	115	147	123	73	81	87	73	76	78
Maximum Annual Geometric Mean									29.4	25.8	24.2	27.1	23.4	21.8	22.0	19.4	18.8	19.9
Days Above State 24-Hour Standard									17	14	9	14	10	7	6	4	1	3
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.1	7.0	6.3	6.1	6.6	6.1	6.2	5.8	6.3	6.1	6.1	6.1	5.7	5.2	4.5	4.1	3.6	3.2
Maximum 1-Hour Concentration	12.0	14.0	18.0	13.0	12.0	11.0	10.0	12.0	15.0	12.0	11.0	9.0	9.0	9.0	7.7	6.5	6.8	5.7
Maximum 8-Hour Concentration	6.9	5.1	6.4	5.6	5.9	5.3	5.9	5.5	6.6	5.6	5.8	5.4	5.4	5.0	4.2	2.9	2.9	3.2
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.175	0.152	0.136	0.112	0.112	0.114	0.114	0.113	0.112	0.110	0.098	0.099	0.096	0.097	0.084	0.082	0.079	0.076
Maximum 1-Hour Concentration	0.240	0.120	0.110	0.130	0.150	0.110	0.130	0.130	0.130	0.110	0.100	0.120	0.110	0.100	0.081	0.087	0.085	0.076
Maximum Annual Average	0.026	0.024	0.024	0.021	0.024	0.023	0.023	0.023	0.023	0.023	0.021	0.023	0.020	0.020	0.020	0.019	0.017	0.016

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.17	0.06	0.10	0.05	0.04	0.07	0.06	0.04	0.05	0.06	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.04
Maximum 1-Hour Concentration	0.14	0.09	0.18	0.24	0.37	0.18	0.12	0.16	0.13	0.09	0.08	0.05	0.10	0.11	0.07	0.05	0.06	0.10

Table 5-76

San Francisco Bay Area Air Basin

County: Marin

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.120	0.099	0.087	0.085	0.098	0.103	0.100	0.095	0.094	0.095	0.084	0.074	0.066	0.076	0.080	0.087	0.088	0.087
National 1-Hour Design Value	0.120	0.100	0.090	0.090	0.110	0.110	0.100	0.090	0.090	0.090	0.080	0.080	0.060	0.080	0.080	0.082	0.088	0.088
National 8-Hour Design Value	0.059	0.050	0.052	0.054	0.073	0.060	0.058	0.060	0.058	0.060	0.054	0.050	0.044	0.054	0.055	0.060	0.060	0.048
Maximum 1-Hour Concentration	0.110	0.090	0.100	0.110	0.110	0.100	0.080	0.100	0.100	0.080	0.080	0.080	0.070	0.080	0.089	0.088	0.105	0.106
Maximum 8-Hour Concentration	0.075	0.051	0.066	0.091	0.083	0.078	0.060	0.076	0.076	0.069	0.063	0.068	0.054	0.061	0.061	0.072	0.081	0.074
Days Above State Standard	1	0	1	2	5	1	0	1	1	0	0	0	0	0	0	0	2	1
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									91	73	115	115	63	69	72	74	50	72
Maximum Annual Geometric Mean									25.0	26.7	22.6	26.4	22.0	21.3	21.5	19.2	19.8	20.2
Days Above State 24-Hour Standard									2	7	4	10	5	1	4	1	1	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.4	8.0	6.6	5.3	5.3	5.1	5.5	5.4	5.4	4.7	4.9	5.2	5.4	5.1	3.9	3.5	3.3	3.2
Maximum 1-Hour Concentration	14.0	12.0	14.0	11.0	14.0	10.0	10.0	12.0	10.0	9.0	8.0	10.0	8.0	9.0	6.4	6.1	7.1	6.0
Maximum 8-Hour Concentration	7.0	4.5	5.6	5.5	5.8	4.6	5.9	4.5	5.0	4.0	5.0	5.7	5.0	4.0	3.0	3.2	4.0	2.8
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.123	0.128	0.134	0.106	0.101	0.100	0.100	0.099	0.104	0.102	0.097	0.091	0.084	0.086	0.078	0.075	0.068	0.064
Maximum 1-Hour Concentration	0.160	0.160	0.110	0.100	0.120	0.090	0.110	0.130	0.140	0.100	0.070	0.090	0.080	0.080	0.079	0.060	0.068	0.067
Maximum Annual Average	0.025	0.025	0.024	0.024	0.025	0.024	0.024	0.023	0.022	0.022	0.021	0.021	0.021	0.021	0.020	0.018	0.018	0.016

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

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San Francisco Bay Area Air Basin

County: Napa

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.124	0.109	0.108	0.102	0.111	0.115	0.107	0.106	0.107	0.109	0.100	0.098	0.094	0.099	0.096	0.106	0.106	0.103
National 1-Hour Design Value	0.120	0.110	0.110	0.100	0.110	0.110	0.110	0.110	0.100	0.100	0.090	0.100	0.090	0.100	0.091	0.105	0.095	0.095
National 8-Hour Design Value	0.083	0.061	0.066	0.073	0.079	0.070	0.061	0.075	0.075	0.064	0.061	0.069	0.060	0.073	0.067	0.081	0.068	0.055
Maximum 1-Hour Concentration	0.120	0.110	0.090	0.110	0.110	0.110	0.090	0.110	0.100	0.100	0.090	0.110	0.090	0.120	0.092	0.130	0.090	0.084
Maximum 8-Hour Concentration	0.089	0.068	0.078	0.082	0.090	0.086	0.068	0.080	0.089	0.085	0.073	0.075	0.070	0.084	0.076	0.096	0.075	0.071
Days Above State Standard	10	3	0	4	8	3	0	6	1	2	0	3	0	2	0	4	0	0
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									109	97	117	100	74	70	86	69	57	78
Maximum Annual Geometric Mean									26.5	27.9	27.9	28.0	23.9	22.6	21.1	17.8	18.2	16.6
Days Above State 24-Hour Standard									8	9	8	11	5	3	2	1	1	3
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.5	8.6	8.2	6.7	7.0	6.9	6.9	6.4	6.4	6.4	6.3	6.2	6.0	5.7	5.2	4.9	4.5	4.1
Maximum 1-Hour Concentration	12.0	9.0	10.0	10.0	11.0	10.0	11.0	12.0	11.0	12.0	10.0	9.0	8.0	7.0	7.4	7.6	5.6	5.7
Maximum 8-Hour Concentration	8.5	6.5	6.7	6.5	7.1	6.6	6.8	5.6	6.0	5.4	7.1	5.8	5.3	4.4	4.6	3.5	3.8	3.9
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.100	0.101	0.102	0.084	0.082	0.080	0.091	0.094	0.095	0.090	0.085	0.087	0.082	0.083	0.072	0.071	0.065	0.062
Maximum 1-Hour Concentration	0.120	0.080	0.090	0.080	0.090	0.090	0.090	0.090	0.080	0.090	0.070	0.090	0.060	0.080	0.065	0.059	0.077	0.075
Maximum Annual Average	0.021	0.017	0.017	0.017	0.018	0.017	0.018	0.018	0.018	0.017	0.017	0.017	0.015	0.015	0.015	0.014	0.014	0.012

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-78

San Francisco Bay Area Air Basin

County: San Francisco

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.075	0.066	0.067	0.071	0.078	0.080	0.077	0.073	0.074	0.075	0.071	0.063	0.058	0.060	0.062	0.065	0.064	0.067
National 1-Hour Design Value	0.090	0.070	0.080	0.080	0.090	0.090	0.090	0.070	0.080	0.080	0.070	0.070	0.060	0.060	0.060	0.080	0.071	0.071
National 8-Hour Design Value	0.050	0.038	0.043	0.045	0.046	0.054	0.048	0.054	0.055	0.048	0.045	0.040	0.044	0.041	0.044	0.050	0.045	0.042
Maximum 1-Hour Concentration	0.090	0.070	0.080	0.130	0.100	0.090	0.070	0.090	0.090	0.080	0.060	0.050	0.080	0.080	0.055	0.088	0.071	0.068
Maximum 8-Hour Concentration	0.064	0.040	0.051	0.074	0.068	0.065	0.056	0.070	0.070	0.064	0.051	0.048	0.053	0.053	0.046	0.067	0.050	0.060
Days Above State Standard	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 1-Hour Standard	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									117	101	165	109	81	69	93	50	71	81
Maximum Annual Geometric Mean									23.9	31.6	27.8	29.7	27.6	25.1	24.7	22.1	21.4	22.4
Days Above State 24-Hour Standard									7	13	12	15	9	5	6	0	2	3
Calc. Days Above Nat. 24-Hour Std.									0	0	6	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.7	8.8	7.4	7.8	8.4	8.8	9.1	8.6	8.3	7.7	7.8	7.2	6.7	6.4	5.8	5.6	4.7	4.4
Maximum 1-Hour Concentration	11.0	14.0	18.0	14.0	15.0	21.0	20.0	17.0	15.0	14.0	12.0	14.0	10.0	10.0	7.5	8.5	8.6	8.0
Maximum 8-Hour Concentration	7.5	7.3	14.5	8.0	10.8	15.0	12.6	10.0	12.8	9.0	6.9	8.4	7.4	6.9	5.3	5.3	5.6	5.7
Days Above State 8-Hour Standard	0	0	1	0	1	3	2	1	1	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	1	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.165	0.145	0.148	0.125	0.131	0.141	0.106	0.112	0.117	0.123	0.120	0.113	0.108	0.100	0.093	0.089	0.087	0.082
Maximum 1-Hour Concentration	0.240	0.110	0.130	0.130	0.140	0.180	0.110	0.150	0.120	0.140	0.110	0.100	0.090	0.080	0.091	0.088	0.081	0.067
Maximum Annual Average	0.029	0.027	0.027	0.026	0.029	0.028	0.024	0.024	0.026	0.026	0.021	0.024	0.022	0.024	0.022	0.021	0.021	0.020

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.05	0.05	0.04	0.03	0.03	0.03	0.08	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03
Maximum 1-Hour Concentration	0.06	0.04	0.06	0.06	0.08	0.07	0.07	0.03	0.03	0.05	0.03	0.04	0.04	0.04	0.02	0.04	0.04	0.03

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San Francisco Bay Area Air Basin

County: San Mateo

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.113	0.107	0.102	0.110	0.116	0.121	0.104	0.099	0.097	0.098	0.089	0.078	0.071	0.076	0.076	0.091	0.098	0.100
National 1-Hour Design Value	0.120	0.130	0.120	0.110	0.110	0.110	0.110	0.110	0.100	0.100	0.090	0.080	0.070	0.080	0.084	0.103	0.103	0.103
National 8-Hour Design Value	0.071	0.056	0.053	0.068	0.070	0.068	0.046	0.067	0.068	0.063	0.048	0.050	0.050	0.051	0.049	0.076	0.061	0.053
Maximum 1-Hour Concentration	0.150	0.130	0.100	0.170	0.110	0.130	0.100	0.120	0.100	0.100	0.080	0.080	0.090	0.100	0.084	0.140	0.097	0.090
Maximum 8-Hour Concentration	0.103	0.088	0.060	0.089	0.080	0.078	0.071	0.074	0.076	0.073	0.050	0.057	0.065	0.076	0.066	0.099	0.068	0.073
Days Above State Standard	4	2	1	8	9	5	1	2	2	1	0	0	0	1	0	5	1	0
Days Above Nat. 1-Hour Standard	2	1	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									94	90	137	90	80	76	76	48	48	70
Maximum Annual Geometric Mean									23.9	29.1	23.0	26.6	24.9	22.9	21.9	18.6	19.2	22.3
Days Above State 24-Hour Standard									6	10	8	12	7	5	6	0	0	2
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.3	8.1	7.4	7.0	7.1	7.3	7.0	6.9	6.1	5.8	5.9	5.9	5.7	5.8	5.4	4.9	4.4	3.9
Maximum 1-Hour Concentration	13.0	12.0	14.0	15.0	13.0	14.0	12.0	13.0	13.0	13.0	12.0	11.0	12.0	10.0	12.0	10.1	8.6	10.7
Maximum 8-Hour Concentration	8.3	6.7	6.0	9.6	5.6	6.4	6.4	5.5	5.4	5.3	5.9	6.5	4.8	5.8	5.4	3.9	3.6	4.2
Days Above State 8-Hour Standard	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.160	0.152	0.118	0.080	0.092	0.116	0.131	0.137	0.140	0.132	0.128	0.122	0.116	0.110	0.101	0.096	0.092	0.082
Maximum 1-Hour Concentration	0.200	0.090	0.080	0.100	0.090	0.130	0.130	0.120	0.130	0.120	0.120	0.120	0.100	0.090	0.106	0.077	0.090	0.084
Maximum Annual Average	0.020	0.016	0.015	0.016	0.021	0.022	0.024	0.022	0.024	0.024	0.022	0.023	0.021	0.022	0.021	0.019	0.020	0.018

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

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San Francisco Bay Area Air Basin

County: Santa Clara

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.186	0.162	0.154	0.153	0.164	0.173	0.155	0.149	0.147	0.148	0.130	0.117	0.117	0.119	0.115	0.125	0.126	0.125
National 1-Hour Design Value	0.190	0.190	0.180	0.150	0.160	0.160	0.150	0.140	0.140	0.140	0.120	0.120	0.120	0.120	0.118	0.130	0.129	0.129
National 8-Hour Design Value	0.115	0.098	0.090	0.110	0.110	0.094	0.093	0.106	0.096	0.094	0.079	0.086	0.080	0.081	0.079	0.099	0.091	0.071
Maximum 1-Hour Concentration	0.200	0.180	0.150	0.200	0.170	0.160	0.140	0.170	0.140	0.130	0.130	0.130	0.130	0.130	0.130	0.145	0.129	0.114
Maximum 8-Hour Concentration	0.150	0.124	0.100	0.150	0.124	0.128	0.105	0.109	0.101	0.103	0.096	0.109	0.101	0.113	0.096	0.110	0.104	0.085
Days Above State Standard	46	43	26	48	50	40	32	41	34	17	10	12	15	14	8	22	24	3
Days Above Nat. 1-Hour Standard	16	5	3	18	19	7	1	12	2	3	1	1	1	1	1	6	1	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									146	150	173	153	112	101	93	60	76	95
Maximum Annual Geometric Mean									34.6	34.4	33.0	31.5	29.5	24.0	24.8	21.9	22.1	23.7
Days Above State 24-Hour Standard									22	44	29	33	15	9	9	4	2	3
Calc. Days Above Nat. 24-Hour Std.									0	0	6	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	15.5	14.8	13.9	11.9	11.9	13.9	14.0	13.4	10.7	11.8	12.6	12.4	11.1	9.3	8.1	7.8	7.4	6.5
Maximum 1-Hour Concentration	27.0	16.0	16.0	17.0	20.0	21.0	16.0	13.0	15.0	19.0	18.0	15.0	11.0	14.0	12.0	8.9	8.8	9.9
Maximum 8-Hour Concentration	16.4	11.0	12.3	10.6	12.1	16.1	11.3	7.4	10.4	12.0	11.0	11.0	7.8	6.9	8.8	5.8	7.0	6.1
Days Above State 8-Hour Standard	16	5	9	2	5	17	5	0	3	8	4	4	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	11	4	7	2	5	15	5	0	3	7	2	3	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.236	0.234	0.226	0.183	0.187	0.197	0.189	0.188	0.167	0.162	0.156	0.159	0.155	0.141	0.115	0.119	0.116	0.111
Maximum 1-Hour Concentration	0.260	0.220	0.160	0.180	0.180	0.190	0.160	0.170	0.160	0.150	0.150	0.140	0.100	0.120	0.107	0.116	0.108	0.118
Maximum Annual Average	0.035	0.033	0.032	0.030	0.032	0.035	0.033	0.031	0.032	0.034	0.030	0.031	0.027	0.027	0.028	0.027	0.025	0.025

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

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San Francisco Bay Area Air Basin

County: Solano

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.129	0.117	0.113	0.109	0.117	0.119	0.112	0.113	0.112	0.117	0.107	0.103	0.100	0.103	0.102	0.111	0.114	0.114
National 1-Hour Design Value	0.120	0.120	0.120	0.120	0.130	0.130	0.120	0.110	0.110	0.110	0.110	0.100	0.100	0.100	0.100	0.109	0.113	0.113
National 8-Hour Design Value	0.083	0.070	0.071	0.076	0.081	0.076	0.070	0.086	0.083	0.074	0.074	0.076	0.075	0.074	0.073	0.087	0.081	0.069
Maximum 1-Hour Concentration	0.140	0.120	0.110	0.130	0.140	0.120	0.090	0.120	0.130	0.120	0.110	0.110	0.100	0.130	0.107	0.133	0.113	0.103
Maximum 8-Hour Concentration	0.103	0.078	0.089	0.097	0.095	0.088	0.076	0.093	0.094	0.086	0.088	0.088	0.086	0.096	0.082	0.099	0.095	0.083
Days Above State Standard	6	4	4	7	13	7	0	14	6	4	2	5	4	4	3	13	8	1
Days Above Nat. 1-Hour Standard	1	0	0	2	4	0	0	0	1	0	0	0	0	1	0	1	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration															63	59	49	85
Maximum Annual Geometric Mean																16.4	15.1	15.6
Days Above State 24-Hour Standard															1	1	0	3
Calc. Days Above Nat. 24-Hour Std.															0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	11.0	10.8	11.3	10.9	11.4	10.7	10.9	10.3	10.3	10.1	10.4	10.3	9.3	8.4	7.4	7.1	6.1	5.6
Maximum 1-Hour Concentration	15.0	14.0	13.0	13.0	15.0	12.0	13.0	13.0	14.0	13.0	12.0	13.0	11.0	12.0	8.7	7.0	6.4	6.5
Maximum 8-Hour Concentration	13.0	8.6	10.9	9.9	9.8	8.6	10.8	9.4	10.6	11.5	9.0	9.6	6.6	7.9	6.5	5.3	4.9	4.9
Days Above State 8-Hour Standard	3	0	5	1	4	0	4	1	1	2	0	1	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	2	0	5	1	2	0	4	0	1	2	0	1	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.113	0.102	0.103	0.096	0.095	0.093	0.097	0.090	0.090	0.094	0.095	0.096	0.089	0.087	0.075	0.072	0.069	0.066
Maximum 1-Hour Concentration	0.140	0.130	0.100	0.100	0.110	0.090	0.100	0.080	0.090	0.130	0.080	0.090	0.070	0.070	0.066	0.070	0.071	0.068
Maximum Annual Average	0.017	0.018	0.020	0.018	0.019	0.018	0.017	0.018	0.019	0.018	0.018	0.018	0.017	0.016	0.016	0.015	0.015	0.013

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.08	0.05	0.06	0.04	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02
Maximum 1-Hour Concentration	0.10	0.06	0.03	0.04	0.04	0.05	0.05	0.05	0.12	0.04	0.04	0.04	0.03	0.04	0.05	0.04	0.05	0.01

Table 5-82

A portion of Solano County lies within the Sacramento Valley Air Basin.

San Francisco Bay Area Air Basin

County: Sonoma

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.132	0.112	0.106	0.090	0.100	0.106	0.105	0.102	0.102	0.104	0.102	0.103	0.095	0.091	0.081	0.086	0.086	0.084
National 1-Hour Design Value	0.120	0.110	0.110	0.090	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.090	0.090	0.080	0.084	0.084	0.085
National 8-Hour Design Value	0.090	0.061	0.065	0.063	0.074	0.070	0.063	0.076	0.076	0.078	0.065	0.075	0.061	0.056	0.060	0.060	0.068	0.048
Maximum 1-Hour Concentration	0.120	0.090	0.090	0.120	0.110	0.110	0.100	0.110	0.110	0.100	0.090	0.100	0.090	0.080	0.086	0.097	0.089	0.093
Maximum 8-Hour Concentration	0.095	0.064	0.071	0.089	0.088	0.091	0.079	0.098	0.096	0.084	0.074	0.079	0.080	0.063	0.073	0.077	0.077	0.080
Days Above State Standard	9	0	0	2	3	3	1	2	2	3	0	3	0	0	0	1	0	0
Days Above Nat. 1-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration															61	46	38	85
Maximum Annual Geometric Mean																13.9	15.3	16.5
Days Above State 24-Hour Standard															1	0	0	2
Calc. Days Above Nat. 24-Hour Std.															0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.3	4.9	5.4	5.2	5.1	5.3	5.6	5.5	5.2	5.5	5.6	5.2	4.4	4.2	3.8	3.5	3.1	3.0
Maximum 1-Hour Concentration	14.0	11.0	9.0	8.0	10.0	9.0	9.0	7.0	9.0	9.0	7.0	6.0	6.0	6.0	5.1	4.9	5.6	5.4
Maximum 8-Hour Concentration	7.6	5.8	5.8	4.6	4.9	5.9	5.3	4.3	5.1	6.1	5.1	4.0	4.0	3.8	3.4	2.8	3.0	3.3
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.112	0.086	0.083	0.097	0.107	0.121	0.119	0.111	0.103	0.097	0.094	0.083	0.083	0.081	0.081	0.076	0.068	0.064
Maximum 1-Hour Concentration	0.150	0.090	0.090	0.110	0.140	0.160	0.110	0.090	0.120	0.090	0.090	0.090	0.100	0.090	0.084	0.066	0.062	0.061
Maximum Annual Average	0.020	0.016	0.016	0.016	0.017	0.017	0.016	0.016	0.016	0.015	0.014	0.015	0.015	0.016	0.015	0.015	0.014	0.013

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-83

A portion of Sonoma County lies within the North Coast Air Basin.

San Joaquin Valley Air Basin

County: Fresno

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.188	0.183	0.187	0.184	0.164	0.160	0.172	0.172	0.168	0.161	0.158	0.167	0.162	0.162	0.156	0.152	0.153	0.153
National 1-Hour Design Value	0.180	0.180	0.170	0.170	0.160	0.160	0.170	0.170	0.170	0.160	0.150	0.160	0.160	0.160	0.150	0.144	0.146	0.146
National 8-Hour Design Value	0.125	0.121	0.124	0.110	0.115	0.111	0.125	0.126	0.118	0.114	0.104	0.119	0.109	0.111	0.106	0.108	0.111	0.116
Maximum 1-Hour Concentration	0.210	0.180	0.180	0.170	0.170	0.160	0.180	0.200	0.190	0.150	0.150	0.180	0.160	0.160	0.144	0.173	0.154	0.147
Maximum 8-Hour Concentration	0.141	0.126	0.128	0.123	0.125	0.132	0.135	0.150	0.125	0.121	0.118	0.130	0.121	0.121	0.112	0.126	0.123	0.127
Days Above State Standard	104	95	79	82	109	112	118	127	130	109	79	94	86	81	65	81	96	95
Days Above Nat. 1-Hour Standard	54	36	26	27	42	34	39	43	47	24	14	30	25	19	14	22	31	13

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									162	250	297	152	125	190	127	126	144	124
Maximum Annual Geometric Mean									44.4	61.2	54.7	47.7	47.5	44.3	43.2	40.0	33.9	41.5
Days Above State 24-Hour Standard									43	39	41	36	33	30	28	31	22	21
Calc. Days Above Nat. 24-Hour Std.									6	36	24	0	0	6	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	18.6	17.2	15.7	13.9	13.6	13.4	13.9	13.5	13.8	13.7	10.6	10.2	10.2	10.0	8.3	10.9	9.9	9.0
Maximum 1-Hour Concentration	24.0	18.0	18.0	17.0	24.0	18.0	21.0	15.0	19.0	23.0	15.0	15.0	13.0	13.0	15.0	12.0	10.1	9.9
Maximum 8-Hour Concentration	15.5	13.6	14.8	14.3	15.7	10.7	16.3	10.9	16.5	13.1	10.3	10.4	7.6	9.3	8.9	9.1	6.8	7.5
Days Above State 8-Hour Standard	27	10	7	9	6	6	12	3	3	16	2	1	0	2	0	1	0	0
Days Above Nat. 8-Hour Standard	21	8	6	6	5	6	8	3	3	12	2	1	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.201	0.186	0.173	0.129	0.115	0.144	0.149	0.146	0.144	0.151	0.130	0.129	0.123	0.121	0.123	0.124	0.116	0.107
Maximum 1-Hour Concentration	0.210	0.210	0.150	0.150	0.190	0.150	0.190	0.150	0.210	0.190	0.160	0.120	0.110	0.120	0.119	0.111	0.109	0.103
Maximum Annual Average	0.034	0.026	0.027	0.025	0.027	0.031	0.032	0.030	0.032	0.032	0.029	0.025	0.023	0.023	0.023	0.022	0.021	0.021

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.05	0.04	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.01
Maximum 1-Hour Concentration	0.09	0.04	0.04	0.03	0.07	0.04	0.04	0.06	0.03	0.04	0.03	0.03	0.03	0.01	0.02	0.01	0.02	0.01

Table 5-84

San Joaquin Valley Air Basin

County: Kern

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.156	0.180	0.176	0.171	0.164	0.163	0.162	0.166	0.169	0.168	0.164	0.166	0.160	0.154	0.155	0.163	0.164	0.167
National 1-Hour Design Value	0.150	0.170	0.170	0.170	0.160	0.160	0.160	0.160	0.170	0.170	0.160	0.160	0.160	0.160	0.160	0.165	0.165	0.164
National 8-Hour Design Value	0.116	0.128	0.111	0.106	0.113	0.115	0.118	0.120	0.120	0.120	0.119	0.118	0.110	0.118	0.118	0.124	0.127	0.106
Maximum 1-Hour Concentration	0.170	0.180	0.180	0.160	0.170	0.160	0.160	0.170	0.170	0.180	0.170	0.160	0.150	0.160	0.175	0.168	0.165	0.146
Maximum 8-Hour Concentration	0.134	0.149	0.134	0.114	0.121	0.121	0.127	0.131	0.128	0.136	0.124	0.120	0.115	0.125	0.129	0.134	0.137	0.119
Days Above State Standard	84	107	76	66	81	112	99	124	134	132	120	119	106	110	114	115	114	66
Days Above Nat. 1-Hour Standard	23	50	21	20	26	27	33	46	56	42	37	37	10	37	37	38	44	8

PM_{10} (μg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									244	237	287	189	183	130	190	195	153	137
Maximum Annual Geometric Mean									65.4	68.4	67.8	58.1	55.6	45.3	35.2	48.9	47.6	43.1
Days Above State 24-Hour Standard									57	56	63	55	50	39	42	55	48	30
Calc. Days Above Nat. 24-Hour Std.									27	21	21	18	6	0	12	3	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	11.5	10.9	10.0	8.5	8.2	7.4	7.3	7.0	7.4	8.7	9.4	9.5	8.5	6.8	5.3	5.3	5.1	4.7
Maximum 1-Hour Concentration	17.0	14.0	14.0	14.0	11.0	10.0	14.0	10.0	12.0	14.0	13.0	13.0	11.0	8.0	8.8	7.8	8.7	6.1
Maximum 8-Hour Concentration	12.3	10.1	11.3	9.7	6.9	6.0	8.8	6.9	8.9	11.0	8.6	8.1	5.8	6.1	6.4	6.2	7.7	4.1
Days Above State 8-Hour Standard	5	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	5	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.163	0.153	0.138	0.133	0.119	0.128	0.126	0.125	0.128	0.133	0.136	0.131	0.120	0.114	0.095	0.109	0.106	0.103
Maximum 1-Hour Concentration	0.130	0.170	0.110	0.140	0.140	0.160	0.120	0.100	0.120	0.130	0.140	0.110	0.110	0.100	0.089	0.109	0.110	0.081
Maximum Annual Average	0.040	0.034	0.030	0.030	0.028	0.031	0.030	0.029	0.032	0.033	0.031	0.030	0.027	0.027	0.030	0.029	0.029	0.024

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.23	0.15	0.14	0.12	0.09	0.09	0.08	0.08	0.05	0.06	0.06	0.04	0.04	0.03	0.02	0.02	0.03	0.03
Maximum 1-Hour Concentration	0.19	0.25	0.11	0.15	0.11	0.14	0.11	0.07	0.07	0.06	0.14	0.03	0.03	0.03	0.03	0.03	0.06	0.02

Table 5-85

A portion of Kern County lies within the Mojave Desert Air Basin.

San Joaquin Valley Air Basin

County: Kings

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.126	0.126	0.113	0.120	0.121	0.127			0.127	0.124	0.119	0.112	0.106		0.111	0.106	0.137	0.138
National 1-Hour Design Value	0.140	0.120	0.110	0.120	0.120	0.120	0.120	0.130	0.130	0.130	0.130	0.110	0.100	0.110	0.109	0.109	0.138	0.138
National 8-Hour Design Value	0.088	0.071	0.090	0.101	0.096	0.098	0.073	0.098	0.098	0.095	0.084	0.086	0.074	0.081	0.093	0.081	0.117	0.098
Maximum 1-Hour Concentration	0.130	0.110	0.110	0.130	0.120	0.140	0.110	0.130	0.150	0.130	0.100	0.110	0.100	0.110	0.119	0.096	0.144	0.126
Maximum 8-Hour Concentration	0.094	0.084	0.096	0.105	0.103	0.101	0.096	0.104	0.108	0.113	0.093	0.094	0.079	0.094	0.103	0.085	0.121	0.106
Days Above State Standard	8	2	13	20	20	14	1	19	34	13	4	15	1	2	9	2	78	23
Days Above Nat. 1-Hour Standard	1	0	0	1	0	2	0	2	3	1	0	0	0	0	0	0	8	2

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									159	202	439	279	167	239	125	279	143	199
Maximum Annual Geometric Mean									43.5	57.3	50.4	55.0	48.6	44.3	44.3	43.6	35.4	42.3
Days Above State 24-Hour Standard									27	35	38	37	37	32	34	34	30	23
Calc. Days Above Nat. 24-Hour Std.									6	30	12	24	6	18	0	9	0	6

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator															0.087	0.094	0.091	0.091
Maximum 1-Hour Concentration															0.082	0.094	0.066	0.080
Maximum Annual Average															0.015	0.015	0.014	0.014

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-86

San Joaquin Valley Air Basin

County: Madera

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator		0.142							0.129	0.117	0.113	0.117	0.114	0.125	0.121	0.124	0.122	
National 1-Hour Design Value		0.130							0.110	0.120	0.120	0.120	0.110	0.130	0.130	0.130	0.121	0.084
National 8-Hour Design Value		0.099							0.098	0.096	0.090	0.095	0.090	0.105	0.081	0.095	0.105	0.071
Maximum 1-Hour Concentration		0.130							0.130	0.120	0.110	0.130	0.120	0.150	0.103	0.117	0.134	0.085
Maximum 8-Hour Concentration		0.118							0.106	0.101	0.098	0.101	0.098	0.110	0.086	0.103	0.111	0.080
Days Above State Standard		26							11	15	6	24	15	28	4	16	28	0
Days Above Nat. 1-Hour Standard		1							1	0	0	2	0	6	0	0	2	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									108	162	174	118	96	128	105	111	89	
Maximum Annual Geometric Mean									47.1	47.6	43.4	42.4	40.3	38.7	35.7	34.1		
Days Above State 24-Hour Standard									26	25	23	27	18	22	13	20	7	
Calc. Days Above Nat. 24-Hour Std.									0	6	6	0	0	0	0	0	0	

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		
Maximum 8-Hour Concentration																		
Days Above State 8-Hour Standard																		
Days Above Nat. 8-Hour Standard																		

No Monitoring Data Available

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		0.077
Maximum Annual Average																		

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-87

San Joaquin Valley Air Basin

County: Merced

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator			0.137										0.124	0.122	0.121	0.124	0.127	0.130
National 1-Hour Design Value		0.070	0.130									0.120	0.120	0.120	0.120	0.125	0.125	0.125
National 8-Hour Design Value		0.048	0.108									0.098	0.103	0.096	0.098	0.107	0.102	0.075
Maximum 1-Hour Concentration		0.070	0.140									0.130	0.120	0.130	0.123	0.130	0.131	0.102
Maximum 8-Hour Concentration		0.055	0.119									0.111	0.108	0.110	0.107	0.115	0.116	0.096
Days Above State Standard		0	48									13	39	22	31	38	44	1
Days Above Nat. 1-Hour Standard		0	6									2	0	1	0	3	1	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									114	148	211	145	98	121	131	100	61	
Maximum Annual Geometric Mean										45.0	44.7	42.7	41.1	33.5	34.5	32.3		
Days Above State 24-Hour Standard									26	19	25	28	24	19	10	16	4	
Calc. Days Above Nat. 24-Hour Std.									0	0	6	0	0	0	0	0	0	

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration		8.0	7.0									10.0	9.0					
Maximum 8-Hour Concentration		4.7	4.0									5.4	4.8					
Days Above State 8-Hour Standard		0	0									0	0					
Days Above Nat. 8-Hour Standard		0	0									0	0					

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator													0.075	0.080	0.080	0.079	0.076	0.076
Maximum 1-Hour Concentration		0.080	0.070									0.090	0.070	0.090	0.076	0.073	0.071	0.072
Maximum Annual Average													0.015	0.014	0.013	0.012	0.012	0.013

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator																		
Maximum 1-Hour Concentration																		

No Monitoring Data Available

Table 5-88

San Joaquin Valley Air Basin

County: San Joaquin

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.149	0.141	0.139	0.151	0.145	0.141	0.136	0.134	0.134	0.133	0.132	0.119	0.117	0.117	0.117	0.122	0.123	0.122
National 1-Hour Design Value	0.160	0.140	0.130	0.130	0.130	0.140	0.140	0.130	0.130	0.130	0.130	0.120	0.120	0.110	0.119	0.124	0.120	0.119
National 8-Hour Design Value	0.099	0.099	0.085	0.106	0.109	0.099	0.098	0.098	0.103	0.083	0.089	0.091	0.088	0.089	0.088	0.092	0.094	0.079
Maximum 1-Hour Concentration	0.140	0.140	0.130	0.150	0.150	0.140	0.140	0.160	0.130	0.120	0.130	0.120	0.110	0.130	0.128	0.134	0.140	0.119
Maximum 8-Hour Concentration	0.124	0.118	0.103	0.115	0.114	0.113	0.115	0.110	0.104	0.104	0.103	0.095	0.090	0.098	0.102	0.107	0.097	0.100
Days Above State Standard	27	23	15	32	49	35	31	54	37	10	17	26	21	12	16	16	26	6
Days Above Nat. 1-Hour Standard	6	4	1	9	4	5	3	1	4	0	1	0	0	1	1	2	2	0

PM_{10} (μg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									153	146	251	140	145	104	109	109	127	130
Maximum Annual Geometric Mean									44.1	44.8	43.3	43.0	39.9	32.0	32.6		23.7	26.8
Days Above State 24-Hour Standard									20	18	22	21	18	13	10	3	3	6
Calc. Days Above Nat. 24-Hour Std.									0	0	6	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	11.0	9.7	9.2	9.9	10.5	10.3	13.6	13.9	14.1	12.2	13.7	13.2	11.5	9.2	7.5	7.5	7.3	6.2
Maximum 1-Hour Concentration	18.0	14.0	18.0	17.0	16.0	13.0	19.0	16.0	14.0	16.0	17.0	15.0	11.0	10.0	11.3	10.3	11.0	7.7
Maximum 8-Hour Concentration	13.1	7.5	11.5	12.1	7.8	8.4	12.1	12.9	11.4	11.0	11.5	11.4	8.3	6.9	7.8	6.2	7.6	4.2
Days Above State 8-Hour Standard	1	0	2	3	0	0	9	1	1	6	7	2	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	1	0	2	3	0	0	8	1	1	4	7	2	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.135	0.135	0.131	0.113	0.107	0.111	0.122	0.121	0.126	0.122	0.128	0.134	0.132	0.133	0.131	0.127	0.114	0.103
Maximum 1-Hour Concentration	0.130	0.140	0.120	0.100	0.090	0.110	0.160	0.100	0.110	0.130	0.120	0.110	0.190	0.160	0.144	0.119	0.088	0.090
Maximum Annual Average	0.028	0.023	0.022	0.022	0.022	0.020	0.023	0.025	0.026	0.025	0.026	0.025	0.023	0.024	0.024	0.022	0.023	0.022

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03								
Maximum 1-Hour Concentration	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.04	0.06	0.03								

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San Joaquin Valley Air Basin

County: Stanislaus

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.152	0.160	0.142	0.140	0.143	0.148	0.133	0.149	0.143	0.142	0.131	0.126	0.122	0.119	0.119	0.127	0.129	0.132
National 1-Hour Design Value	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.130	0.120	0.120	0.110	0.114	0.125	0.125	0.125
National 8-Hour Design Value	0.090	0.108	0.089	0.104	0.116	0.110	0.101	0.109	0.104	0.098	0.099	0.091	0.095	0.096	0.091	0.104	0.099	0.090
Maximum 1-Hour Concentration	0.140	0.150	0.110	0.140	0.160	0.150	0.130	0.150	0.140	0.130	0.150	0.120	0.120	0.130	0.123	0.131	0.129	0.120
Maximum 8-Hour Concentration	0.108	0.126	0.100	0.109	0.136	0.123	0.105	0.128	0.126	0.120	0.110	0.103	0.103	0.109	0.100	0.112	0.112	0.100
Days Above State Standard	22	46	37	47	56	57	42	77	64	41	32	33	27	19	28	28	39	15
Days Above Nat. 1-Hour Standard	2	11	0	5	13	10	2	18	5	3	3	0	0	2	0	2	2	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									175	148	180	157	150	154	160	120	133	119
Maximum Annual Geometric Mean									40.1	45.4	40.7	42.1	38.6	33.6	36.1	34.9	27.5	33.3
Days Above State 24-Hour Standard									30	32	36	24	18	23	17	19	8	16
Calc. Days Above Nat. 24-Hour Std.									6	0	6	6	0	0	6	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	10.2	8.4	7.6	8.1	8.5	9.5	10.4	10.5	10.6	11.9	12.4	12.4	10.1	9.0	7.7	7.4	7.0	6.0
Maximum 1-Hour Concentration	16.0	15.0	11.0	14.0	15.0	15.0	18.0	12.0	17.0	17.0	17.0	19.0	10.0	11.0	9.5	11.4	9.2	7.1
Maximum 8-Hour Concentration	10.0	11.8	7.2	8.8	8.4	11.0	11.3	8.6	13.1	13.4	10.9	10.8	6.5	8.6	6.4	5.7	6.5	5.0
Days Above State 8-Hour Standard	1	1	0	0	0	2	4	0	1	10	2	2	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	1	1	0	0	0	1	4	0	1	8	2	1	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.169	0.115	0.117	0.117	0.108	0.111	0.122	0.127	0.130	0.127	0.128	0.119	0.109	0.107	0.102	0.102	0.097	0.097
Maximum 1-Hour Concentration	0.140	0.170	0.130	0.110	0.080	0.120	0.130	0.120	0.130	0.140	0.100	0.110	0.100	0.110	0.093	0.093	0.087	0.093
Maximum Annual Average	0.034	0.022	0.026	0.023	0.020	0.022	0.024	0.024	0.027	0.027	0.026	0.024	0.022	0.023	0.023	0.022	0.022	0.021

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.04	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02						
Maximum 1-Hour Concentration	0.04	0.06	0.04	0.05	0.02	0.02	0.02	0.02	0.05	0.02	0.01	0.07						

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San Joaquin Valley Air Basin

County: Tulare

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.149	0.143	0.145	0.140	0.134	0.135	0.140	0.144	0.144	0.142	0.135	0.133	0.124	0.135	0.144	0.143	0.139	0.131
National 1-Hour Design Value	0.140	0.140	0.140	0.130	0.130	0.130	0.140	0.150	0.150	0.150	0.140	0.140	0.130	0.140	0.150	0.150	0.140	0.132
National 8-Hour Design Value	0.113	0.101	0.121	0.106	0.104	0.113	0.114	0.116	0.105	0.114	0.103	0.103	0.099	0.109	0.114	0.104	0.104	0.101
Maximum 1-Hour Concentration	0.160	0.130	0.150	0.140	0.140	0.140	0.160	0.180	0.150	0.160	0.140	0.130	0.130	0.150	0.154	0.132	0.140	0.125
Maximum 8-Hour Concentration	0.119	0.109	0.129	0.113	0.118	0.114	0.122	0.134	0.118	0.121	0.115	0.111	0.105	0.125	0.120	0.113	0.111	0.106
Days Above State Standard	77	54	81	64	73	93	98	90	77	75	62	60	23	76	78	66	81	50
Days Above Nat. 1-Hour Standard	10	2	13	4	3	6	13	8	4	10	1	1	2	10	12	3	4	1

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									141	204	285	175	122	108	104	125	115	96
Maximum Annual Geometric Mean									60.0	59.5	67.3	55.9		45.0	43.0	44.3	38.6	38.6
Days Above State 24-Hour Standard									35	45	44	39	25	30	26	28	25	11
Calc. Days Above Nat. 24-Hour Std.									0	12	30	6	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	7.9	7.5	7.0	5.8	5.5	5.5	5.7	5.8	6.1	6.4	6.5	6.5	6.0	5.2	4.4	4.5	4.4	4.2
Maximum 1-Hour Concentration	15.0	10.0	10.0	9.0	13.0	9.0	12.0	13.0	14.0	12.0	11.0	14.0	10.0	7.0	8.7	9.3	5.3	7.3
Maximum 8-Hour Concentration	8.8	5.5	5.1	5.8	5.4	5.5	6.9	5.8	8.0	6.4	6.7	6.1	4.8	4.0	4.4	4.4	4.0	4.7
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.106	0.111	0.110	0.114	0.115	0.117	0.110	0.105	0.119	0.138	0.137	0.130	0.109	0.111	0.112	0.115	0.120	0.114
Maximum 1-Hour Concentration	0.110	0.110	0.130	0.110	0.110	0.140	0.110	0.110	0.170	0.210	0.100	0.130	0.100	0.120	0.142	0.112	0.077	0.095
Maximum Annual Average	0.025	0.022	0.020	0.021	0.023	0.022	0.025	0.019	0.022	0.020	0.021	0.022	0.020	0.023	0.023	0.023	0.018	0.019

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.06								
Maximum 1-Hour Concentration	0.03	0.02	0.02	0.02	0.02	0.05	0.03	0.07	0.02	0.02								

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South Central Coast Air Basin

County: San Luis Obispo

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.111	0.101	0.095	0.099	0.099	0.101	0.098	0.097	0.099	0.108	0.105	0.104	0.100	0.099	0.096	0.098	0.108	0.109
National 1-Hour Design Value	0.110	0.100	0.100	0.100	0.100	0.110	0.100	0.100	0.100	0.100	0.100	0.110	0.100	0.100	0.098	0.097	0.107	0.107
National 8-Hour Design Value	0.079	0.076	0.070	0.081	0.075	0.071	0.075	0.074	0.079	0.090	0.081	0.078	0.075	0.074	0.076	0.078	0.087	0.071
Maximum 1-Hour Concentration	0.100	0.100	0.100	0.110	0.160	0.110	0.100	0.130	0.100	0.150	0.100	0.110	0.110	0.100	0.101	0.108	0.141	0.090
Maximum 8-Hour Concentration	0.088	0.093	0.083	0.094	0.094	0.089	0.096	0.111	0.086	0.123	0.083	0.101	0.099	0.089	0.089	0.087	0.118	0.077
Days Above State Standard	9	2	2	7	2	3	5	3	6	8	2	4	3	4	2	7	14	0
Days Above Nat. 1-Hour Standard	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									63	84	86	119	135	141	78	73	98	99
Maximum Annual Geometric Mean									20.9	26.3	26.0	23.5	25.6	36.8	20.8	19.2	16.6	20.5
Days Above State 24-Hour Standard									3	10	10	14	10	21	2	6	13	12
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	5.0	5.2	5.0	5.0	4.7	5.2	5.2	5.2	4.7	4.9	5.1	4.8	4.2	3.6	3.2	2.9	2.9	2.6
Maximum 1-Hour Concentration	10.0	10.0	12.0	13.0	11.0	11.0	10.0	10.0	10.0	10.0	10.0	8.0	8.0	9.0	6.1	5.7	5.0	6.4
Maximum 8-Hour Concentration	4.4	6.6	5.3	4.8	4.7	4.7	4.9	3.9	4.3	6.3	4.1	3.3	3.1	3.2	3.2	3.1	2.9	2.6
Days Above State 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.114	0.102	0.096	0.084	0.081	0.089	0.089	0.090	0.086	0.085	0.084	0.079	0.074	0.072	0.070	0.070	0.063	0.063
Maximum 1-Hour Concentration	0.100	0.110	0.070	0.090	0.090	0.100	0.090	0.080	0.090	0.090	0.070	0.080	0.060	0.070	0.069	0.069	0.060	0.071
Maximum Annual Average	0.016	0.016	0.015	0.013	0.015	0.017	0.015	0.015	0.016	0.016	0.020	0.017	0.015	0.014	0.014	0.013	0.013	0.013

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.12	0.12	0.14	0.13	0.09	0.34	0.29	0.28	0.21	0.11	0.15	0.12	0.11	0.09	0.03	0.14	0.14	0.12
Maximum 1-Hour Concentration	0.17	0.27	0.16	0.10	0.21	0.35	0.38	0.15	0.23	0.22	0.75	0.14	0.17	0.57	0.04	0.25	0.25	0.21

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South Central Coast Air Basin

County: Santa Barbara

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.141	0.138	0.130	0.132	0.143	0.142	0.138	0.143	0.127	0.119	0.120	0.121	0.118	0.116	0.119	0.122	0.128	0.122
National 1-Hour Design Value	0.150	0.160	0.140	0.140	0.150	0.150	0.150	0.140	0.130	0.120	0.120	0.130	0.120	0.120	0.129	0.126	0.130	0.130
National 8-Hour Design Value	0.095	0.091	0.086	0.101	0.099	0.092	0.098	0.095	0.096	0.090	0.098	0.098	0.093	0.086	0.094	0.092	0.098	0.081
Maximum 1-Hour Concentration	0.190	0.240	0.150	0.160	0.160	0.230	0.160	0.170	0.130	0.220	0.170	0.130	0.140	0.135	0.142	0.143	0.134	0.137
Maximum 8-Hour Concentration	0.117	0.139	0.131	0.119	0.119	0.140	0.128	0.141	0.103	0.166	0.119	0.114	0.108	0.110	0.117	0.119	0.123	0.108
Days Above State Standard	26	17	23	20	21	15	39	37	39	18	31	34	20	23	23	24	23	10
Days Above Nat. 1-Hour Standard	2	3	2	7	4	3	10	4	1	4	2	5	5	1	5	3	4	1

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									60	119	96	96	58	90	139	129	78	168
Maximum Annual Geometric Mean									31.3	31.7	34.5	33.5	28.8	27.0	30.6	28.5	26.2	28.4
Days Above State 24-Hour Standard									6	15	7	10	2	10	9	9	9	10
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	6

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	12.1	12.3	12.0	9.6	9.6	10.2	9.9	10.1	9.1	8.9	8.2	7.5	6.4	5.5	5.9	6.0	5.8	5.0
Maximum 1-Hour Concentration	18.0	15.0	14.0	16.0	16.0	17.0	18.0	14.0	15.0	11.0	11.0	9.0	12.0	9.0	10.7	7.8	12.6	8.2
Maximum 8-Hour Concentration	14.0	9.2	8.7	9.0	10.0	10.5	8.6	7.5	7.4	7.4	5.8	6.4	5.9	4.8	6.5	5.8	4.9	4.1
Days Above State 8-Hour Standard	7	1	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	6	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.169	0.151	0.136	0.102	0.120	0.122	0.114	0.109	0.094	0.119	0.119	0.120	0.104	0.099	0.089	0.091	0.091	0.083
Maximum 1-Hour Concentration	0.160	0.120	0.140	0.130	0.170	0.160	0.150	0.140	0.160	0.120	0.110	0.160	0.100	0.090	0.100	0.113	0.107	0.065
Maximum Annual Average	0.027	0.023	0.024	0.027	0.031	0.030	0.022	0.024	0.016	0.027	0.022	0.024	0.022	0.022	0.022	0.021	0.019	0.019

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.06	0.07	0.06	0.04	0.04	0.04	0.08	0.11	0.07	0.11	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.02
Maximum 1-Hour Concentration	0.09	0.09	0.12	0.08	0.08	0.08	0.19	0.10	0.07	0.03	0.08	0.05	0.05	0.14	0.10	0.07	0.09	0.06

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South Central Coast Air Basin

County: Ventura

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.207	0.200	0.198	0.195	0.188	0.181	0.177	0.172	0.177	0.173	0.172	0.164	0.159	0.157	0.146	0.161	0.161	0.154
National 1-Hour Design Value	0.230	0.190	0.200	0.220	0.210	0.190	0.180	0.180	0.180	0.170	0.170	0.170	0.150	0.150	0.146	0.157	0.158	0.152
National 8-Hour Design Value	0.150	0.148	0.144	0.141	0.128	0.129	0.135	0.125	0.135	0.138	0.119	0.126	0.113	0.111	0.117	0.123	0.119	0.105
Maximum 1-Hour Concentration	0.210	0.230	0.230	0.230	0.190	0.200	0.180	0.180	0.180	0.230	0.170	0.170	0.150	0.146	0.164	0.169	0.158	0.134
Maximum 8-Hour Concentration	0.160	0.170	0.169	0.165	0.158	0.157	0.145	0.154	0.143	0.166	0.144	0.140	0.124	0.130	0.133	0.145	0.127	0.115
Days Above State Standard	140	149	142	125	132	136	149	123	135	116	99	107	68	58	88	90	80	59
Days Above Nat. 1-Hour Standard	61	85	70	58	45	44	59	31	55	46	18	33	10	13	17	23	17	2

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									118	92	133	89	84	118	86	93	93	321
Maximum Annual Geometric Mean									35.7	36.3	31.9	34.8	27.1	25.5	27.6	24.4	25.3	26.4
Days Above State 24-Hour Standard									25	32	19	26	9	9	8	10	9	13
Calc. Days Above Nat. 24-Hour Std.									0	0	0	0	0	0	0	0	0	6

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator			6.1	6.3	6.0	2.0	6.2	5.7	5.7	4.9	4.9	4.7	4.5	3.9	3.6	4.0	4.0	4.0
Maximum 1-Hour Concentration	28.0		13.0	15.0	12.0	12.0	15.0	12.0	9.0	10.0	10.0	9.0	7.0	9.0	7.7	8.9	7.8	7.4
Maximum 8-Hour Concentration	7.1		6.0	6.0	5.0	6.0	7.0	5.7	4.4	4.1	5.0	4.3	3.0	3.7	4.2	4.3	3.4	5.6
Days Above State 8-Hour Standard	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.203		0.150	0.139	0.141	0.122	0.132	0.130	0.123	0.117	0.119	0.120	0.114	0.104	0.105	0.112	0.115	0.111
Maximum 1-Hour Concentration	0.150	0.120	0.180	0.160	0.200	0.120	0.130	0.150	0.110	0.120	0.160	0.110	0.100	0.110	0.133	0.127	0.110	0.115
Maximum Annual Average	0.026		0.023	0.024	0.025	0.027	0.028	0.021	0.024	0.027	0.025	0.024	0.022	0.023	0.024	0.024	0.022	0.020

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.05		0.04	0.03	0.03	0.04	0.04	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00
Maximum 1-Hour Concentration	0.08		0.04	0.03	0.03	0.05	0.02	0.02	0.09	0.02	0.01	0.03	0.02	0.01	0.01	0.01	0.01	0.02

Table 5-94

South Coast Air Basin

County: Los Angeles

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.451	0.401	0.373	0.365	0.354	0.375	0.360	0.344	0.319	0.320	0.310	0.304	0.286	0.297	0.279	0.249	0.230	0.229
National 1-Hour Design Value	0.430	0.420	0.390	0.360	0.360	0.360	0.350	0.350	0.340	0.330	0.330	0.310	0.300	0.300	0.280	0.250	0.223	0.209
National 8-Hour Design Value	0.250	0.220	0.231	0.239	0.208	0.234	0.226	0.193	0.199	0.188	0.174	0.178	0.184	0.173	0.153	0.148	0.140	0.121
Maximum 1-Hour Concentration	0.490	0.390	0.400	0.390	0.340	0.390	0.350	0.330	0.340	0.340	0.290	0.320	0.300	0.280	0.300	0.216	0.205	0.170
Maximum 8-Hour Concentration	0.337	0.258	0.266	0.258	0.227	0.288	0.251	0.210	0.259	0.235	0.178	0.184	0.219	0.185	0.208	0.158	0.151	0.130
Days Above State Standard	189	216	180	178	196	201	209	190	205	192	168	159	174	158	142	127	109	89
Days Above Nat. 1-Hour Standard	151	178	142	146	153	154	162	145	165	140	120	111	129	102	102	79	55	27

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									149	172	161	151	222	104	127	157	138	116
Maximum Annual Geometric Mean									57.1	59.6	48.3	59.7	44.1	42.8	41.1	40.8	39.4	41.9
Days Above State 24-Hour Standard									56	59	49	48	31	36	35	33	32	37
Calc. Days Above Nat. 24-Hour Std.									0	6	6	0	12	0	0	6	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	23.7	24.1	24.1	21.0	20.3	24.0	21.1	21.7	21.9	22.5	21.9	19.0	17.7	16.5	16.7	15.6	16.1	15.5
Maximum 1-Hour Concentration	31.0	31.0	27.0	31.0	29.0	33.0	27.0	26.0	32.0	31.0	24.0	30.0	28.0	21.0	24.9	16.8	22.5	19.2
Maximum 8-Hour Concentration	25.8	25.5	21.3	20.9	19.7	27.7	19.7	19.6	27.5	21.8	16.8	17.4	18.8	14.6	18.2	13.8	17.5	17.1
Days Above State 8-Hour Standard	98	81	71	59	72	62	55	43	63	69	46	44	32	24	28	18	23	16
Days Above Nat. 8-Hour Standard	94	73	69	52	66	52	48	39	54	63	43	39	28	19	20	14	17	12

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.433	0.445	0.414	0.378	0.325	0.307	0.303	0.311	0.335	0.323	0.325	0.312	0.311	0.285	0.241	0.229	0.242	0.237
Maximum 1-Hour Concentration	0.540	0.450	0.410	0.470	0.350	0.350	0.330	0.420	0.540	0.340	0.280	0.380	0.300	0.260	0.247	0.239	0.250	0.200
Maximum Annual Average	0.071	0.071	0.062	0.059	0.057	0.060	0.061	0.055	0.061	0.057	0.055	0.055	0.051	0.050	0.050	0.046	0.048	0.043

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.13	0.13	0.10	0.10	0.11	0.10	0.09	0.07	0.06	0.05	0.06	0.05	0.05	0.05	0.10	0.05	0.05	0.06
Maximum 1-Hour Concentration	0.16	0.14	0.09	0.12	0.32	0.08	0.13	0.09	0.15	0.11	0.31	0.14	0.15	0.08	0.04	0.14	0.06	0.10

Table 5-95

A portion of Los Angeles County lies within the Mojave Desert Air Basin.

South Coast Air Basin

County: Orange

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.332	0.295	0.288	0.290	0.297	0.295	0.274	0.267	0.246	0.235	0.227	0.219	0.205	0.197	0.189	0.163	0.156	0.137
National 1-Hour Design Value	0.310	0.310	0.290	0.280	0.290	0.280	0.270	0.260	0.240	0.240	0.240	0.220	0.210	0.190	0.190	0.170	0.156	0.138
National 8-Hour Design Value	0.146	0.164	0.163	0.175	0.154	0.173	0.148	0.139	0.141	0.146	0.128	0.110	0.124	0.110	0.119	0.096	0.091	0.083
Maximum 1-Hour Concentration	0.340	0.330	0.320	0.300	0.320	0.340	0.250	0.240	0.290	0.260	0.210	0.250	0.220	0.190	0.252	0.160	0.150	0.134
Maximum 8-Hour Concentration	0.179	0.190	0.211	0.196	0.177	0.209	0.159	0.165	0.195	0.168	0.143	0.145	0.159	0.123	0.173	0.110	0.104	0.101
Days Above State Standard	119	107	79	110	107	101	101	81	96	81	80	71	63	59	46	39	27	13
Days Above Nat. 1-Hour Standard	72	69	42	65	65	63	53	42	45	38	37	32	35	17	9	4	6	3

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									132	138	158	146	88	115	106	172	101	91
Maximum Annual Geometric Mean									40.2	42.0	41.4	40.0	36.7	34.3	34.2	35.9	31.8	36.3
Days Above State 24-Hour Standard									17	31	25	16	14	13	12	15	6	11
Calc. Days Above Nat. 24-Hour Std.									0	0	6	0	0	0	0	6	0	0

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	17.5	17.1	16.8	13.4	11.8	11.6	11.0	11.3	10.9	11.5	11.5	10.8	9.4	8.8	8.7	8.2	8.5	7.3
Maximum 1-Hour Concentration	26.0	22.0	21.0	22.0	21.0	22.0	20.0	21.0	20.0	24.0	19.0	21.0	21.0	15.0	16.1	12.7	12.9	11.9
Maximum 8-Hour Concentration	21.3	13.4	11.9	11.7	14.4	17.0	10.4	10.6	12.0	12.1	11.7	8.6	9.4	7.7	8.6	8.0	7.4	6.2
Days Above State 8-Hour Standard	43	23	13	8	6	8	4	3	10	13	5	0	3	0	0	0	0	0
Days Above Nat. 8-Hour Standard	38	21	9	6	4	6	4	2	7	12	5	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.363	0.362	0.346	0.302	0.266	0.252	0.236	0.240	0.237	0.241	0.236	0.231	0.221	0.220	0.201	0.196	0.189	0.171
Maximum 1-Hour Concentration	0.430	0.360	0.280	0.330	0.250	0.300	0.210	0.220	0.280	0.280	0.220	0.200	0.210	0.200	0.230	0.192	0.160	0.145
Maximum Annual Average	0.052	0.053	0.048	0.045	0.046	0.043	0.045	0.042	0.046	0.047	0.047	0.045	0.039	0.039	0.041	0.039	0.035	0.033

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.11	0.12	0.10	0.06	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.02	0.02	0.01	0.01
Maximum 1-Hour Concentration	0.14	0.08	0.08	0.05	0.08	0.05	0.06	0.04	0.06	0.07	0.03	0.04	0.03	0.09	0.02	0.02	0.01	0.03

Table 5-96

South Coast Air Basin

County: Riverside

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.361	0.353	0.357	0.335	0.333	0.332	0.308	0.297	0.276	0.269	0.263	0.261	0.251	0.240	0.222	0.207	0.192	0.188
National 1-Hour Design Value	0.360	0.350	0.350	0.340	0.330	0.330	0.320	0.290	0.270	0.270	0.270	0.270	0.250	0.240	0.240	0.220	0.200	0.187
National 8-Hour Design Value	0.255	0.190	0.199	0.220	0.195	0.216	0.183	0.179	0.181	0.181	0.171	0.174	0.165	0.159	0.148	0.143	0.131	0.135
Maximum 1-Hour Concentration	0.370	0.370	0.350	0.360	0.320	0.350	0.270	0.290	0.280	0.270	0.290	0.240	0.260	0.260	0.253	0.213	0.203	0.187
Maximum 8-Hour Concentration	0.271	0.230	0.211	0.230	0.203	0.230	0.218	0.186	0.241	0.214	0.181	0.196	0.194	0.195	0.208	0.162	0.163	0.149
Days Above State Standard	176	208	157	163	182	177	174	175	191	182	150	155	159	157	144	134	107	127
Days Above Nat. 1-Hour Standard	139	153	116	123	132	132	118	125	133	119	97	99	99	86	90	69	50	39

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									252	252	250	179	126	231	161	219	162	227
Maximum Annual Geometric Mean									81.8	81.3	66.9	65.5	49.3	58.0	56.0	51.8	52.0	56.3
Days Above State 24-Hour Standard									52	53	48	45	41	45	46	42	46	45
Calc. Days Above Nat. 24-Hour Std.									30	33	18	12	0	18	6	24	6	6

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	8.4	8.6	8.9	9.0	8.3	7.9	8.4	8.7	8.7	8.5	8.1	8.0	6.9	6.6	6.3	6.2	6.2	6.0
Maximum 1-Hour Concentration	16.0	13.0	13.0	15.0	16.0	14.0	18.0	13.0	17.0	14.0	15.0	14.0	11.0	10.0	11.0	9.0	9.1	10.7
Maximum 8-Hour Concentration	9.3	9.6	8.6	7.9	8.9	9.1	8.3	7.6	10.0	10.3	7.3	7.4	6.1	7.1	7.3	6.3	5.3	5.6
Days Above State 8-Hour Standard	1	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.245	0.246	0.181	0.174	0.161	0.162	0.160	0.163	0.170	0.176	0.174	0.172	0.168	0.159	0.138	0.134	0.133	0.127
Maximum 1-Hour Concentration	0.230	0.320	0.160	0.190	0.170	0.160	0.160	0.210	0.190	0.160	0.160	0.210	0.230	0.140	0.181	0.147	0.110	0.200
Maximum Annual Average	0.050	0.049	0.034	0.034	0.035	0.035	0.032	0.027	0.037	0.036	0.034	0.035	0.030	0.030	0.031	0.030	0.029	0.026

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.07	0.07	0.06	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Maximum 1-Hour Concentration	0.07	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.04

Table 5-97

Portions of Riverside County lie within the Mojave Desert and Salton Sea Air Basins.

South Coast Air Basin

County: San Bernardino

OZONE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.401	0.394	0.351	0.322	0.328	0.330	0.321	0.304	0.284	0.277	0.273	0.266	0.266	0.252	0.252	0.232	0.233	0.222
National 1-Hour Design Value	0.420	0.390	0.360	0.320	0.320	0.320	0.320	0.320	0.290	0.280	0.280	0.270	0.270	0.250	0.250	0.234	0.231	0.215
National 8-Hour Design Value	0.271	0.240	0.217	0.220	0.216	0.213	0.215	0.187	0.194	0.191	0.176	0.183	0.184	0.170	0.164	0.166	0.155	0.127
Maximum 1-Hour Concentration	0.440	0.360	0.320	0.360	0.340	0.340	0.310	0.290	0.350	0.320	0.330	0.290	0.280	0.270	0.265	0.256	0.239	0.205
Maximum 8-Hour Concentration	0.288	0.283	0.256	0.236	0.249	0.253	0.240	0.199	0.250	0.253	0.194	0.204	0.211	0.185	0.193	0.204	0.174	0.143
Days Above State Standard	193	209	175	169	197	184	179	179	193	192	161	160	176	170	158	135	132	122
Days Above Nat. 1-Hour Standard	157	171	136	137	162	138	145	141	153	143	115	109	123	112	115	91	79	53

PM_{10} (µg/m3)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Maximum 24-Hour Concentration									289	271	475	163	649	143	147	178	136	208
Maximum Annual Geometric Mean									66.9	69.7	62.7	60.3	62.4	50.1	52.7	50.6	48.2	47.6
Days Above State 24-Hour Standard									54	53	47	48	47	50	44	41	43	36
Calc. Days Above Nat. 24-Hour Std.									18	18	18	6	12	0	0	18	0	6

CARBON MONOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	9.9	9.8	7.3	6.4	6.2	5.4	7.2	7.1	7.5	7.8	7.7	7.4	6.7	6.1	5.5	6.4	6.3	6.2
Maximum 1-Hour Concentration	19.0	15.0	10.0	17.0	9.0	10.0	9.0	11.0	9.0	11.0	9.0	8.0	7.0	7.0	7.6	7.7	5.8	7.6
Maximum 8-Hour Concentration	9.0	7.6	6.9	12.5	5.6	6.3	6.7	6.7	7.6	8.1	6.6	7.0	5.9	6.0	6.4	6.3	4.5	6.1
Days Above State 8-Hour Standard	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Days Above Nat. 8-Hour Standard	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NITROGEN DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.231	0.217	0.223	0.215	0.180	0.172	0.172	0.184	0.193	0.195	0.192	0.187	0.174	0.167	0.160	0.178	0.180	0.178
Maximum 1-Hour Concentration	0.250	0.200	0.200	0.250	0.200	0.180	0.240	0.200	0.210	0.200	0.200	0.210	0.140	0.160	0.177	0.199	0.163	0.153
Maximum Annual Average	0.048	0.049	0.044	0.042	0.040	0.040	0.042	0.047	0.047	0.045	0.041	0.043	0.040	0.042	0.041	0.046	0.038	0.036

SULFUR DIOXIDE (ppm)	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Peak Indicator	0.11	0.10	0.11	0.09	0.08	0.04	0.05	0.05	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Maximum 1-Hour Concentration	0.17	0.16	0.14	0.06	0.03	0.02	0.05	0.03	0.04	0.03	0.01	0.05	0.02	0.01	0.03	0.02	0.01	0.01

Table 5-98

A portion of San Bernardino County lies within the Mojave Desert Air Basin.

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Appendix

Pollutant Specific Air Quality Trend Data

Introduction

This appendix contains air quality trend data for each of California's 15 air basins, organized by pollutant. The four pollutants included are ozone, PM_{10}, carbon monoxide, and nitrogen dioxide. The statistics are the same as presented in Chapter 4 for each of the State's five major air basins. The time period covered is 1980 through 1997 for ozone, CO, NO_2, and SO_2 and 1988 through 1997 for PM_{10}.

Air quality statistics can fluctuate from year-to-year because of the influence of meteorology. However, the statistics can also vary because of a change in monitoring site. The statistics listed here reflect the highest value for the statistic at any site in the area. As a result, the statistic may not reflect the same site during the entire trend period, because the monitoring sites can change from year-to-year. For example, the carbon monoxide concentrations in Imperial County in the Salton Sea Air Basin are below the levels of the State and national standards from 1980 through 1993. In 1994, however, the concentrations show a significant increase, and both the State and national standards are violated. The CO concentrations in the Salton Sea Air Basin did not suddenly increase during 1994. Instead, monitoring was implemented at a new site in Calexico, and the concentrations at the new site were higher than at the existing sites in the Air Basin. Additional information about monitoring site openings and closings is available upon request from the Air Resources Board Planning and Technical Support Division. This information is also available on the World Wide Web at *www.arb.ca.gov/aqd/almanac/almanac99.htm*. Since the air quality statistics reflect the highest values in the area, the monitoring sites represented also may not be consistent among the various statistics during a particular year. For example, the monitoring site reflected in the maximum 1-hour ozone concentration may not be the same as the monitoring site reflected in the maximum 8-hour ozone concentration.

Ozone (ppm)
Peak 1-Hour Indicator

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0.088	0.088	0.094	0.091	0.096	0.094	0.100	0.099	0.100		0.100		0.115	0.110	0.108	0.097	0.099	0.096
LAKE COUNTY AIR BASIN	0.086	0.083	0.083	0.077	0.080	0.075	0.081	0.081	0.080	0.083	0.074	0.075	0.077	0.077	0.083	0.082	0.082	0.076
LAKE TAHOE AIR BASIN	0.089	0.090	0.088	0.086	0.080	0.080	0.082	0.085	0.089	0.091	0.092	0.093	0.089	0.079	0.082	0.084	0.084	0.083
MOJAVE DESERT AIR BASIN	0.228	0.315	0.220	0.205	0.193	0.200	0.237	0.232	0.234	0.204	0.215	0.223	0.220	0.194	0.191	0.194	0.186	0.171
MOUNTAIN COUNTIES AIR BASIN		0.094					0.090		0.155	0.138	0.125	0.118	0.128	0.122	0.127	0.131	0.137	0.140
NORTH CENTRAL COAST AIR BASIN	0.141	0.129	0.119	0.108	0.104	0.113	0.109	0.146	0.136	0.131	0.115	0.114	0.115	0.111	0.107	0.106	0.112	0.112
NORTH COAST AIR BASIN	0.088	0.094	0.079	0.076	0.076	0.073	0.074	0.084		0.050	0.066	0.063	0.085	0.088	0.089	0.090	0.088	0.091
NORTHEAST PLATEAU AIR BASIN			0.071	0.072	0.074	0.076	0.079	0.081	0.082	0.083	0.082		0.081	0.073	0.075	0.074	0.075	0.074
SACRAMENTO VALLEY AIR BASIN	0.180	0.181	0.175	0.163	0.162	0.173	0.173	0.168	0.170	0.166	0.162	0.153	0.158	0.159	0.148	0.149	0.154	0.141
SALTON SEA AIR BASIN	0.217	0.216	0.209	0.194	0.202	0.203	0.197	0.185	0.182	0.180	0.181	0.175	0.168	0.159	0.154	0.163	0.155	0.157
SAN DIEGO AIR BASIN	0.234	0.228	0.203	0.188	0.197	0.189	0.179	0.179	0.179	0.186	0.180	0.172	0.164	0.150	0.147	0.148	0.142	0.132
SAN FRANCISCO BAY AREA AIR BASIN	0.186	0.162	0.154	0.153	0.164	0.173	0.155	0.149	0.147	0.148	0.136	0.129	0.130	0.126	0.117	0.135	0.151	0.149
SAN JOAQUIN VALLEY AIR BASIN	0.188	0.183	0.187	0.184	0.164	0.163	0.172	0.172	0.169	0.168	0.164	0.167	0.162	0.162	0.156	0.163	0.164	0.167
SOUTH CENTRAL COAST AIR BASIN	0.207	0.200	0.198	0.195	0.188	0.181	0.177	0.172	0.177	0.173	0.172	0.164	0.159	0.157	0.146	0.161	0.161	0.154
SOUTH COAST AIR BASIN	0.451	0.401	0.373	0.365	0.354	0.375	0.360	0.344	0.319	0.320	0.310	0.304	0.286	0.297	0.279	0.249	0.233	0.229

Table A-1

Ozone (ppm)
National 1-Hour Design Value

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0.080	0.080	0.080	0.090	0.090	0.090	0.100	0.100	0.100	0.100	0.100	0.090	0.120	0.120	0.120	0.100	0.100	0.091
LAKE COUNTY AIR BASIN	0.080	0.080	0.080	0.080	0.080	0.070	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080
LAKE TAHOE AIR BASIN	0.090	0.080	0.090	0.080	0.080	0.080	0.080	0.090	0.090	0.090	0.090	0.090	0.090	0.070	0.081	0.086	0.083	0.083
MOJAVE DESERT AIR BASIN	0.220	0.290	0.220	0.210	0.220	0.220	0.230	0.230	0.230	0.210	0.220	0.230	0.230	0.200	0.190	0.188	0.182	0.175
MOUNTAIN COUNTIES AIR BASIN		0.090					0.080	0.080	0.140	0.140	0.140	0.110	0.120	0.120	0.124	0.124	0.129	0.130
NORTH CENTRAL COAST AIR BASIN	0.120	0.120	0.120	0.110	0.100	0.100	0.100	0.134	0.134	0.139	0.120	0.110	0.110	0.110	0.110	0.104	0.114	0.114
NORTH COAST AIR BASIN	0.080	0.080	0.080	0.080	0.070	0.070	0.070	0.080	0.080	0.050	0.060	0.060	0.080	0.090	0.090	0.090	0.090	0.090
NORTHEAST PLATEAU AIR BASIN		0.060	0.070	0.070	0.070	0.070	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.070	0.070	0.070	0.070	0.070
SACRAMENTO VALLEY AIR BASIN	0.190	0.170	0.160	0.160	0.180	0.180	0.180	0.160	0.160	0.160	0.160	0.150	0.150	0.150	0.143	0.145	0.145	0.133
SALTON SEA AIR BASIN	0.200	0.200	0.200	0.190	0.190	0.190	0.190	0.180	0.180	0.180	0.180	0.180	0.170	0.170	0.152	0.180	0.180	0.160
SAN DIEGO AIR BASIN	0.350	0.290	0.210	0.200	0.200	0.210	0.190	0.180	0.180	0.190	0.190	0.170	0.170	0.154	0.150	0.146	0.141	0.138
SAN FRANCISCO BAY AREA AIR BASIN	0.190	0.190	0.180	0.160	0.160	0.160	0.150	0.140	0.140	0.140	0.130	0.130	0.120	0.120	0.121	0.138	0.138	0.138
SAN JOAQUIN VALLEY AIR BASIN	0.180	0.180	0.170	0.170	0.160	0.160	0.170	0.170	0.170	0.170	0.160	0.160	0.160	0.160	0.160	0.165	0.165	0.164
SOUTH CENTRAL COAST AIR BASIN	0.230	0.190	0.200	0.220	0.210	0.190	0.180	0.180	0.180	0.170	0.170	0.170	0.150	0.150	0.146	0.157	0.158	0.152
SOUTH COAST AIR BASIN	0.430	0.420	0.390	0.360	0.360	0.360	0.350	0.350	0.340	0.330	0.330	0.310	0.300	0.300	0.280	0.250	0.231	0.215

Table A-2

Ozone (ppm)
National 8-Hour Design Value

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0.070	0.070	0.070	0.080	0.079	0.080	0.090	0.084	0.086	0.073	0.083	0.070	0.091	0.075	0.084	0.080	0.079	0.077
LAKE COUNTY AIR BASIN	0.068	0.056	0.069	0.055	0.066	0.058	0.071	0.069	0.059	0.050	0.055	0.060	0.051	0.063	0.065	0.058	0.060	0.059
LAKE TAHOE AIR BASIN	0.070	0.074	0.069	0.066	0.069	0.070	0.070	0.075	0.079	0.081	0.074	0.075	0.079	0.066	0.074	0.071	0.069	0.066
MOJAVE DESERT AIR BASIN	0.168	0.240	0.138	0.131	0.130	0.150	0.186	0.154	0.159	0.151	0.164	0.145	0.140	0.138	0.142	0.130	0.134	0.118
MOUNTAIN COUNTIES AIR BASIN		0.076					0.074	0.070	0.109	0.104	0.094	0.099	0.099	0.103	0.102	0.105	0.105	0.096
NORTH CENTRAL COAST AIR BASIN	0.087	0.089	0.075	0.083	0.076	0.088	0.074	0.104	0.088	0.080	0.085	0.084	0.084	0.082	0.079	0.083	0.095	0.077
NORTH COAST AIR BASIN	0.056	0.073	0.054	0.050	0.050	0.050	0.058	0.061	0.066	0.041	0.054	0.050	0.064	0.068	0.070	0.071	0.066	0.081
NORTHEAST PLATEAU AIR BASIN		0.051	0.063	0.058	0.060	0.068	0.068	0.075	0.066	0.068	0.070	0.040	0.061	0.054	0.063	0.058	0.059	0.060
SACRAMENTO VALLEY AIR BASIN	0.115	0.120	0.116	0.113	0.124	0.126	0.113	0.113	0.125	0.105	0.118	0.123	0.111	0.104	0.106	0.112	0.104	0.091
SALTON SEA AIR BASIN	0.155	0.141	0.136	0.130	0.141	0.134	0.130	0.131	0.130	0.126	0.123	0.129	0.115	0.113	0.114	0.108	0.116	0.105
SAN DIEGO AIR BASIN	0.159	0.134	0.120	0.139	0.123	0.138	0.123	0.119	0.129	0.139	0.129	0.116	0.110	0.113	0.108	0.108	0.100	0.094
SAN FRANCISCO BAY AREA AIR BASIN	0.115	0.098	0.093	0.110	0.110	0.095	0.093	0.106	0.096	0.094	0.088	0.086	0.083	0.083	0.083	0.099	0.099	0.072
SAN JOAQUIN VALLEY AIR BASIN	0.125	0.128	0.124	0.110	0.116	0.115	0.125	0.126	0.120	0.120	0.119	0.119	0.110	0.118	0.118	0.124	0.127	0.116
SOUTH CENTRAL COAST AIR BASIN	0.150	0.148	0.144	0.141	0.128	0.129	0.135	0.125	0.135	0.138	0.119	0.126	0.113	0.111	0.117	0.123	0.119	0.105
SOUTH COAST AIR BASIN	0.271	0.240	0.231	0.239	0.216	0.234	0.226	0.193	0.199	0.191	0.176	0.183	0.184	0.173	0.164	0.166	0.155	0.135

Table A-3

Ozone (ppm)
Maximum 1-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0.100	0.080	0.090	0.090	0.090	0.100	0.100	0.100	0.100	0.080	0.100	0.090	0.150	0.090	0.120	0.110	0.095	0.092
LAKE COUNTY AIR BASIN	0.090	0.080	0.080	0.070	0.080	0.080	0.080	0.090	0.070	0.060	0.090	0.080	0.080	0.080	0.090	0.070	0.090	0.080
LAKE TAHOE AIR BASIN	0.090	0.100	0.090	0.080	0.080	0.100	0.090	0.090	0.090	0.100	0.090	0.090	0.100	0.090	0.086	0.092	0.083	0.095
MOJAVE DESERT AIR BASIN	0.290	0.330	0.200	0.230	0.230	0.210	0.260	0.220	0.270	0.220	0.270	0.240	0.230	0.200	0.188	0.240	0.175	0.187
MOUNTAIN COUNTIES AIR BASIN		0.090					0.090	0.080	0.160	0.130	0.150	0.110	0.130	0.120	0.130	0.146	0.138	0.145
NORTH CENTRAL COAST AIR BASIN	0.140	0.140	0.110	0.110	0.100	0.110	0.100	0.146	0.127	0.140	0.120	0.140	0.110	0.110	0.101	0.138	0.120	0.112
NORTH COAST AIR BASIN	0.080	0.090	0.080	0.070	0.070	0.070	0.070	0.090	0.090	0.050	0.070	0.060	0.090	0.090	0.100	0.100	0.080	0.100
NORTHEAST PLATEAU AIR BASIN		0.060	0.070	0.070	0.080	0.080	0.080	0.090	0.080	0.080	0.080	0.050	0.080	0.070	0.080	0.070	0.070	0.082
SACRAMENTO VALLEY AIR BASIN	0.180	0.180	0.160	0.170	0.210	0.200	0.170	0.180	0.180	0.170	0.150	0.190	0.170	0.150	0.145	0.156	0.157	0.143
SALTON SEA AIR BASIN	0.210	0.190	0.190	0.190	0.200	0.240	0.180	0.170	0.200	0.190	0.170	0.180	0.170	0.210	0.180	0.232	0.180	0.160
SAN DIEGO AIR BASIN	0.230	0.290	0.230	0.280	0.280	0.220	0.190	0.290	0.250	0.250	0.200	0.210	0.170	0.187	0.147	0.162	0.138	0.136
SAN FRANCISCO BAY AREA AIR BASIN	0.200	0.180	0.150	0.200	0.170	0.160	0.140	0.170	0.150	0.140	0.130	0.140	0.130	0.130	0.130	0.155	0.138	0.114
SAN JOAQUIN VALLEY AIR BASIN	0.210	0.180	0.180	0.170	0.170	0.160	0.180	0.200	0.190	0.180	0.170	0.180	0.160	0.160	0.175	0.173	0.165	0.147
SOUTH CENTRAL COAST AIR BASIN	0.210	0.240	0.230	0.230	0.190	0.230	0.180	0.180	0.180	0.230	0.170	0.170	0.150	0.146	0.164	0.169	0.158	0.137
SOUTH COAST AIR BASIN	0.490	0.390	0.400	0.390	0.340	0.390	0.350	0.330	0.350	0.340	0.330	0.320	0.300	0.280	0.300	0.256	0.239	0.205

Table A-4

Ozone (ppm)

Maximum 8-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0.071	0.074	0.083	0.088	0.088	0.090	0.094	0.091	0.099	0.078	0.091	0.074	0.104	0.078	0.093	0.101	0.090	0.080
LAKE COUNTY AIR BASIN	0.075	0.060	0.074	0.061	0.078	0.070	0.080	0.080	0.061	0.054	0.064	0.066	0.058	0.073	0.075	0.064	0.070	0.065
LAKE TAHOE AIR BASIN	0.080	0.083	0.080	0.071	0.073	0.086	0.080	0.083	0.085	0.085	0.080	0.081	0.083	0.071	0.079	0.089	0.074	0.071
MOJAVE DESERT AIR BASIN	0.184	0.296	0.145	0.183	0.159	0.168	0.225	0.161	0.167	0.161	0.199	0.174	0.165	0.148	0.155	0.171	0.146	0.133
MOUNTAIN COUNTIES AIR BASIN		0.088					0.079	0.074	0.139	0.110	0.115	0.103	0.113	0.111	0.109	0.114	0.113	0.112
NORTH CENTRAL COAST AIR BASIN	0.118	0.114	0.078	0.089	0.084	0.091	0.084	0.113	0.097	0.100	0.095	0.109	0.090	0.088	0.093	0.102	0.102	0.091
NORTH COAST AIR BASIN	0.060	0.086	0.065	0.058	0.063	0.056	0.063	0.076	0.076	0.043	0.060	0.051	0.073	0.074	0.080	0.090	0.071	0.091
NORTHEAST PLATEAU AIR BASIN		0.058	0.066	0.063	0.066	0.075	0.070	0.081	0.071	0.076	0.077	0.046	0.074	0.070	0.069	0.063	0.064	0.074
SACRAMENTO VALLEY AIR BASIN	0.133	0.143	0.133	0.125	0.138	0.161	0.125	0.128	0.130	0.134	0.128	0.140	0.123	0.120	0.122	0.129	0.126	0.108
SALTON SEA AIR BASIN	0.163	0.151	0.143	0.150	0.165	0.160	0.143	0.141	0.138	0.160	0.130	0.149	0.129	0.129	0.131	0.132	0.125	0.120
SAN DIEGO AIR BASIN	0.174	0.206	0.163	0.176	0.208	0.169	0.144	0.196	0.156	0.194	0.145	0.145	0.134	0.154	0.122	0.123	0.118	0.112
SAN FRANCISCO BAY AREA AIR BASIN	0.150	0.124	0.109	0.150	0.124	0.128	0.106	0.116	0.101	0.103	0.105	0.109	0.101	0.113	0.097	0.115	0.113	0.085
SAN JOAQUIN VALLEY AIR BASIN	0.141	0.149	0.134	0.123	0.136	0.132	0.135	0.150	0.128	0.136	0.124	0.130	0.121	0.125	0.129	0.134	0.137	0.127
SOUTH CENTRAL COAST AIR BASIN	0.160	0.170	0.169	0.165	0.158	0.157	0.145	0.154	0.143	0.166	0.144	0.140	0.124	0.130	0.133	0.145	0.127	0.115
SOUTH COAST AIR BASIN	0.337	0.283	0.266	0.258	0.249	0.288	0.251	0.210	0.259	0.253	0.194	0.204	0.219	0.195	0.208	0.204	0.174	0.149

Table A-5

Ozone
Days Above State Standard

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	1	0	0	0	0	1	5	4	3	0	2	0	5	0	4	2	1	0
LAKE COUNTY AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAKE TAHOE AIR BASIN	0	2	0	0	0	1	0	0	0	2	0	0	1	0	0	0	0	1
MOJAVE DESERT AIR BASIN	127	159	120	120	131	147	156	157	151	158	136	135	148	135	137	115	108	101
MOUNTAIN COUNTIES AIR BASIN		0					0	0	39	39	22	23	54	35	57	49	65	29
NORTH CENTRAL COAST AIR BASIN	15	8	2	7	6	12	1	37	14	10	11	12	9	12	6	8	16	1
NORTH COAST AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
NORTHEAST PLATEAU AIR BASIN		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SACRAMENTO VALLEY AIR BASIN	73	78	66	62	64	59	66	94	98	67	50	68	74	34	60	50	58	25
SALTON SEA AIR BASIN	108	141	96	96	100	96	80	85	107	119	83	86	100	113	126	124	97	91
SAN DIEGO AIR BASIN	168	192	120	125	146	148	131	127	160	159	139	106	97	90	79	96	51	43
SAN FRANCISCO BAY AREA AIR BASIN	47	51	36	53	55	45	39	46	41	22	14	23	23	19	13	28	34	8
SAN JOAQUIN VALLEY AIR BASIN	124	130	113	105	135	149	147	151	154	148	131	132	124	125	118	124	120	110
SOUTH CENTRAL COAST AIR BASIN	144	151	145	126	133	137	153	126	137	117	103	111	73	63	90	95	82	59
SOUTH COAST AIR BASIN	210	233	198	192	209	207	217	196	216	211	185	184	190	185	165	153	141	144

Table A-6

Ozone
Days Above National 1-Hour Standard

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
LAKE COUNTY AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAKE TAHOE AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOJAVE DESERT AIR BASIN	85	122	38	66	66	93	105	81	107	93	76	70	76	69	77	53	39	22
MOUNTAIN COUNTIES AIR BASIN		0					0	0	7	2	2	0	1	0	2	3	7	2
NORTH CENTRAL COAST AIR BASIN	2	2	0	0	0	0	0	5	1	1	0	1	0	0	0	1	0	0
NORTH COAST AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTHEAST PLATEAU AIR BASIN		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SACRAMENTO VALLEY AIR BASIN	19	22	17	15	23	19	24	24	35	8	16	14	14	7	9	11	9	3
SALTON SEA AIR BASIN	50	63	38	50	40	29	31	40	35	38	27	27	31	36	20	33	21	13
SAN DIEGO AIR BASIN	88	78	47	61	51	50	42	40	45	56	39	27	19	14	9	12	2	1
SAN FRANCISCO BAY AREA AIR BASIN	18	8	5	21	22	9	5	14	5	4	2	2	2	3	2	11	8	0
SAN JOAQUIN VALLEY AIR BASIN	64	69	43	41	61	53	59	64	74	54	45	51	29	43	43	44	56	16
SOUTH CENTRAL COAST AIR BASIN	61	85	72	58	46	44	63	31	55	46	18	35	12	14	17	25	19	3
SOUTH COAST AIR BASIN	167	187	151	153	175	158	167	160	178	157	131	130	142	124	118	98	85	64

Table A-7

PM_{10} ($\mu g/m^3$)

Maximum 24-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN									394	1861	866	181	526	981	388	2668	491	312
LAKE COUNTY AIR BASIN									28	29	30	31	22	30	21	30	26	18
LAKE TAHOE AIR BASIN									95	73	84	78	85	92	78	71	72	55
MOJAVE DESERT AIR BASIN									150	191	462	780	242	79	140	235	138	130
MOUNTAIN COUNTIES AIR BASIN									180	144	209	350	120	130	115	118	114	138
NORTH CENTRAL COAST AIR BASIN									71	58	57	55	45	102	106	152	115	113
NORTH COAST AIR BASIN									125	92	266	78	58	54	77	68	87	66
NORTHEAST PLATEAU AIR BASIN									92	59	63	60	74	60	101	78	188	97
SACRAMENTO VALLEY AIR BASIN									115	139	153	136	111	118	154	145	98	126
SALTON SEA AIR BASIN									368	712	520	340	175	175	258	229	441	532
SAN DIEGO AIR BASIN									81	90	115	81	67	159	129	121	93	125
SAN FRANCISCO BAY AREA AIR BASIN									146	150	173	155	112	101	97	74	76	95
SAN JOAQUIN VALLEY AIR BASIN									244	250	439	279	183	239	190	279	153	199
SOUTH CENTRAL COAST AIR BASIN									118	119	133	119	135	141	139	129	98	321
SOUTH COAST AIR BASIN									289	271	475	179	649	231	161	219	162	227

Table A-8

PM_{10} ($\mu g/m^3$)

Maximum Annual Geometric Mean

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN									27.9	24.1	29.0	16.5	28.9	25.7	23.4	21.0	20.4	21.0
LAKE COUNTY AIR BASIN										12.0	10.1	11.0	11.1	9.9	10.1	9.6	9.1	7.7
LAKE TAHOE AIR BASIN									30.1	24.9	26.0	24.6			23.5	19.3	19.3	19.6
MOJAVE DESERT AIR BASIN									33.6	43.0	38.6	38.1	35.6	33.3	36.4	22.6	25.6	27.4
MOUNTAIN COUNTIES AIR BASIN											35.6	34.1	31.0	30.0	28.7	24.2	18.8	27.4
NORTH CENTRAL COAST AIR BASIN									21.2	23.2	22.3	22.8	18.0	19.2	27.6	29.5	27.7	31.7
NORTH COAST AIR BASIN									31.7	28.2	24.4	22.5	20.1	20.5	21.1	23.4	21.6	20.7
NORTHEAST PLATEAU AIR BASIN									21.9	21.7	20.2		20.9	19.2	20.3	25.4	16.0	10.8
SACRAMENTO VALLEY AIR BASIN									36.7	35.6	36.0	37.7	31.4	28.8	31.1	29.5	25.5	25.3
SALTON SEA AIR BASIN									52.2	66.4	64.9	59.8	43.7	47.2	46.5	59.6	64.7	76.9
SAN DIEGO AIR BASIN									36.8	41.3	33.4	38.0	33.5	40.0	45.2	39.8	28.4	41.9
SAN FRANCISCO BAY AREA AIR BASIN									34.6	34.4	33.0	31.5	29.5	25.1	24.8	22.1	22.1	23.7
SAN JOAQUIN VALLEY AIR BASIN									65.4	68.4	67.8	58.1	55.6	45.3	44.3	48.9	47.6	43.1
SOUTH CENTRAL COAST AIR BASIN									35.7	36.3	34.5	34.8	28.8	36.8	30.6	28.5	26.2	28.4
SOUTH COAST AIR BASIN									81.8	81.3	66.9	65.5	62.4	58.0	56.0	51.8	52.0	56.3

Table A-9

PM_{10}
Days Above State 24-Hour Standard

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN									35	32	24	23	26	24	19	24	28	26
LAKE COUNTY AIR BASIN									0	0	0	0	0	0	0	0	0	0
LAKE TAHOE AIR BASIN									10	5	10	6	5	5	7	3	4	2
MOJAVE DESERT AIR BASIN									35	41	46	32	26	24	26	10	16	6
MOUNTAIN COUNTIES AIR BASIN									27	22	34	23	18	19	16	7	8	20
NORTH CENTRAL COAST AIR BASIN									4	3	3	2	0	10	5	12	12	16
NORTH COAST AIR BASIN									25	16	9	11	3	3	8	3	5	6
NORTHEAST PLATEAU AIR BASIN									4	5	5	2	4	1	4	9	3	3
SACRAMENTO VALLEY AIR BASIN									33	25	42	49	37	26	24	36	28	11
SALTON SEA AIR BASIN									44	52	51	54	32	42	52	60	62	59
SAN DIEGO AIR BASIN									18	28	11	20	7	27	25	23	16	22
SAN FRANCISCO BAY AREA AIR BASIN									32	51	34	36	19	11	10	7	3	4
SAN JOAQUIN VALLEY AIR BASIN									68	66	79	70	66	53	62	76	59	48
SOUTH CENTRAL COAST AIR BASIN									30	37	23	37	17	29	14	18	26	25
SOUTH COAST AIR BASIN									65	67	65	56	52	61	58	51	51	54

Table A-10

PM_{10}
Calculated Days Above National 24-Hour Standard

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN									12	24	12	6	18	9	6	18	18	13
LAKE COUNTY AIR BASIN									0	0	0	0	0	0	0	0	0	0
LAKE TAHOE AIR BASIN									0	0	0	0	0	0	0	0	0	0
MOJAVE DESERT AIR BASIN									0	6	12	18	6	0	0	6	0	0
MOUNTAIN COUNTIES AIR BASIN									6	0	9	12	0	0	0	0	0	0
NORTH CENTRAL COAST AIR BASIN									0	0	0	0	0	0	0	0	0	0
NORTH COAST AIR BASIN									0	0	6	0	0	0	0	0	0	0
NORTHEAST PLATEAU AIR BASIN									0	0	0	0	0	0	0	0	6	0
SACRAMENTO VALLEY AIR BASIN									0	0	0	0	0	0	0	0	0	0
SALTON SEA AIR BASIN									6	24	24	18	6	12	18	12	48	36
SAN DIEGO AIR BASIN									0	0	0	0	0	6	0	0	0	0
SAN FRANCISCO BAY AREA AIR BASIN									0	0	6	3	0	0	0	0	0	0
SAN JOAQUIN VALLEY AIR BASIN									27	36	30	24	6	18	12	9	0	6
SOUTH CENTRAL COAST AIR BASIN									0	0	0	0	0	0	0	0	0	6
SOUTH COAST AIR BASIN									30	33	18	12	12	18	6	24	6	6

Table A-11

Carbon Monoxide (ppm)

Peak 8-Hour Indicator

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	9.3	8.5	8.6	7.7		7.3	7.2	7.0	5.9	5.8			3.5	5.0	4.7	4.6	4.0	
LAKE COUNTY AIR BASIN	3.4									1.9	2.9							
LAKE TAHOE AIR BASIN	13.7	15.0	15.6	16.2	16.2	16.4	15.5	14.9	13.2	12.6	11.9	11.1	10.2	8.7	8.3	7.8	7.0	5.6
MOJAVE DESERT AIR BASIN	8.1	7.3	7.7	5.4	5.4	5.6	5.2	4.9	4.6	5.5	7.7	7.6	6.6	6.2	6.1	5.8	7.4	4.8
MOUNTAIN COUNTIES AIR BASIN	16.5	15.7					4.5			4.1			2.9	2.9	2.8	2.8	2.7	2.4
NORTH CENTRAL COAST AIR BASIN	3.8	3.8	2.9	2.7	2.6	2.4		2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.1	1.9
NORTH COAST AIR BASIN						5.2		3.4		4.6				2.4		3.2	3.4	3.3
NORTHEAST PLATEAU AIR BASIN																		
SACRAMENTO VALLEY AIR BASIN	12.7	12.9	13.4	13.2	13.0	13.1	14.6	14.4	13.4	14.1	14.7	14.8	12.9	10.7	9.6	9.3	8.5	7.7
SALTON SEA AIR BASIN	3.4	3.6	3.6	3.1	2.5	2.5	2.6	2.6	2.5	2.3	2.3	2.3	2.2	2.1	17.4	18.8	17.8	17.5
SAN DIEGO AIR BASIN	11.3	10.5	9.5	9.2	9.4	10.6	10.2	10.4	10.2	10.3	10.2	10.0	8.5	7.8	7.7	7.3	7.3	6.3
SAN FRANCISCO BAY AREA AIR BASIN	15.5	14.8	13.9	11.9	11.9	13.9	14.0	13.4	10.7	11.8	12.6	12.4	11.1	9.3	8.1	7.8	7.4	6.5
SAN JOAQUIN VALLEY AIR BASIN	18.6	17.2	15.7	13.9	13.6	13.4	13.9	13.9	14.1	13.7	13.7	13.2	11.5	10.0	8.3	10.9	9.9	9.0
SOUTH CENTRAL COAST AIR BASIN	12.1	12.3	12.0	9.6	9.6	10.2	9.9	10.1	9.1	8.9	8.2	7.5	6.4	5.5	5.9	6.0	5.8	5.0
SOUTH COAST AIR BASIN	23.7	24.1	24.1	21.0	20.3	24.0	21.1	21.7	21.9	22.5	21.9	19.0	17.7	16.5	16.7	15.6	16.1	15.5

Table A-12

Carbon Monoxide (ppm)

Maximum 1-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	17.0	13.0	18.0	14.0	13.0	16.0	11.0	9.0	13.0	12.0	10.0	11.0	11.0	13.0	9.0	10.0	6.0	7.5
LAKE COUNTY AIR BASIN	5.0	3.0								3.0	6.0	7.0						
LAKE TAHOE AIR BASIN	30.0	25.0	27.0	30.0	23.0	23.0	20.0	19.0	19.0	17.0	18.0	14.0	15.0	13.0	11.6	9.5	10.4	7.7
MOJAVE DESERT AIR BASIN	11.0	9.0	10.0	13.0	10.0	12.0	9.0	12.0	11.0	13.0	11.0	10.0	9.0	8.0	9.1	7.5	8.4	5.9
MOUNTAIN COUNTIES AIR BASIN	27.0	30.0					6.0	3.0		6.0	5.0	1.0	4.0	10.0	9.3	9.3	4.5	6.6
NORTH CENTRAL COAST AIR BASIN	5.0	4.0	6.0	3.0	5.0	6.0	4.0	5.0	6.0	5.0	5.0	4.0	4.0	4.0	4.6	3.2	5.5	4.4
NORTH COAST AIR BASIN	6.0				6.0	8.0	6.0	4.0	1.0	10.0	9.0		1.0	6.0		5.4	4.8	7.4
NORTHEAST PLATEAU AIR BASIN								12.0										
SACRAMENTO VALLEY AIR BASIN	18.0	17.0	17.0	19.0	18.0	17.0	20.0	15.0	17.0	18.0	17.0	15.0	14.0	12.0	10.8	9.8	8.7	9.5
SALTON SEA AIR BASIN	8.0	6.0	5.0	7.0	4.0	5.0	5.0	5.0	4.0	6.0	5.0	5.0	5.0	6.0	30.6	32.0	27.0	24.0
SAN DIEGO AIR BASIN	15.0	15.0	15.0	16.0	16.0	17.0	16.0	14.0	17.0	17.0	18.0	14.0	14.0	11.4	11.0	9.9	12.4	9.3
SAN FRANCISCO BAY AREA AIR BASIN	27.0	16.0	18.0	17.0	20.0	21.0	20.0	17.0	15.0	19.0	18.0	15.0	12.0	14.0	12.0	10.1	8.8	10.7
SAN JOAQUIN VALLEY AIR BASIN	24.0	18.0	18.0	17.0	24.0	18.0	21.0	16.0	19.0	23.0	17.0	19.0	13.0	13.0	15.0	12.0	11.0	9.9
SOUTH CENTRAL COAST AIR BASIN	28.0	15.0	14.0	16.0	16.0	17.0	18.0	14.0	15.0	11.0	11.0	9.0	12.0	9.0	10.7	8.9	12.6	8.2
SOUTH COAST AIR BASIN	31.0	31.0	27.0	31.0	29.0	33.0	27.0	26.0	32.0	31.0	24.0	30.0	28.0	21.0	24.9	16.8	22.5	19.2

Table A-13

Carbon Monoxide (ppm)

Maximum 8-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	8.5	6.4	10.8	7.9	7.3	7.4	6.0	6.3	5.0	5.4	4.4	5.0	4.4	4.5	5.4	5.4	3.0	3.4
LAKE COUNTY AIR BASIN	2.9	2.1								2.2	2.6	3.1						
LAKE TAHOE AIR BASIN	19.0	15.4	18.3	17.4	14.8	16.3	12.5	13.0	12.5	11.3	10.1	9.2	9.9	7.5	7.1	6.3	5.1	3.8
MOJAVE DESERT AIR BASIN	8.0	7.4	5.0	6.3	4.9	5.7	4.6	4.0	5.9	7.1	8.3	7.1	5.4	5.9	5.6	5.1	7.5	4.0
MOUNTAIN COUNTIES AIR BASIN	16.6	16.0					4.2	2.3		4.6	3.5	0.1	2.6	5.4	5.4	3.4	2.6	1.9
NORTH CENTRAL COAST AIR BASIN	3.6	2.9	2.6	2.1	3.0	3.3	2.3	2.3	2.4	2.4	2.5	2.5	2.9	2.7	2.1	1.8	2.6	1.8
NORTH COAST AIR BASIN	2.4				4.1	5.5	3.1	3.0	1.0	4.5	3.5		0.6	2.4		3.2	2.7	3.2
NORTHEAST PLATEAU AIR BASIN								10.4										
SACRAMENTO VALLEY AIR BASIN	14.3	13.5	15.1	14.1	12.4	13.3	13.9	10.0	12.3	15.9	14.0	12.3	8.6	9.4	8.5	7.4	7.2	7.2
SALTON SEA AIR BASIN	3.6	3.8	2.6	2.8	2.1	2.6	3.6	2.9	2.1	2.9	2.3	2.5	2.4	2.0	13.1	22.9	22.1	17.8
SAN DIEGO AIR BASIN	10.1	11.3	10.3	12.1	8.5	13.0	10.4	9.4	10.3	10.5	9.1	7.9	7.9	7.5	7.5	6.3	7.1	5.3
SAN FRANCISCO BAY AREA AIR BASIN	16.4	11.0	14.5	10.6	12.1	16.1	12.6	10.0	12.8	12.0	11.0	11.0	7.8	7.9	8.8	5.8	7.0	6.1
SAN JOAQUIN VALLEY AIR BASIN	15.5	13.6	14.8	14.3	15.7	11.0	16.3	12.9	16.5	13.4	11.5	11.4	8.3	9.3	8.9	9.1	7.7	7.5
SOUTH CENTRAL COAST AIR BASIN	14.0	9.2	8.7	9.0	10.0	10.5	8.6	7.5	7.4	7.4	5.8	6.4	5.9	4.8	6.5	5.8	4.9	5.6
SOUTH COAST AIR BASIN	25.8	25.5	21.3	20.9	19.7	27.7	19.7	19.6	27.5	21.8	16.8	17.4	18.8	14.6	18.2	13.8	17.5	17.1

Table A-14

Carbon Monoxide

Days Above State 8-Hour Standard

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAKE COUNTY AIR BASIN	0	0								0	0	0						
LAKE TAHOE AIR BASIN	115	163	155	135	131	115	88	84	75	67	39	24	13	11	9	1	0	0
MOJAVE DESERT AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOUNTAIN COUNTIES AIR BASIN	74	40					0	0		0	0	0	0	0	0	0	0	0
NORTH CENTRAL COAST AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTH COAST AIR BASIN	0				0	0	0	0	0	0	0		0	0		0	0	0
NORTHEAST PLATEAU AIR BASIN								1										
SACRAMENTO VALLEY AIR BASIN	10	7	11	6	6	12	12	4	11	19	14	8	0	2	0	0	0	0
SALTON SEA AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	13	9	13
SAN DIEGO AIR BASIN	1	1	1	1	0	5	2	1	5	6	1	0	0	0	0	0	0	0
SAN FRANCISCO BAY AREA AIR BASIN	17	5	13	4	8	20	8	2	4	10	4	5	0	0	0	0	0	0
SAN JOAQUIN VALLEY AIR BASIN	30	12	9	12	6	7	13	4	5	23	9	3	0	2	0	1	0	0
SOUTH CENTRAL COAST AIR BASIN	7	1	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH COAST AIR BASIN	98	84	71	60	73	64	56	43	66	70	47	44	32	24	28	18	23	16

Table A-15

Carbon Monoxide

Days Above National 8-Hour Standard

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAKE COUNTY AIR BASIN	0	0								0	0	0						
LAKE TAHOE AIR BASIN	26	25	39	21	27	27	10	12	8	5	5	0	1	0	0	0	0	0
MOJAVE DESERT AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MOUNTAIN COUNTIES AIR BASIN	57	39					0	0		0	0	0	0	0	0	0	0	0
NORTH CENTRAL COAST AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTH COAST AIR BASIN	0				0	0	0	0	0	0	0		0	0		0	0	0
NORTHEAST PLATEAU AIR BASIN								1										
SACRAMENTO VALLEY AIR BASIN	9	7	10	3	5	11	11	3	9	18	12	6	0	0	0	0	0	0
SALTON SEA AIR BASIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	7	10
SAN DIEGO AIR BASIN	1	1	1	1	0	3	1	0	2	5	0	0	0	0	0	0	0	0
SAN FRANCISCO BAY AREA AIR BASIN	12	4	11	4	7	17	8	1	4	9	2	4	0	0	0	0	0	0
SAN JOAQUIN VALLEY AIR BASIN	24	10	8	9	5	7	11	4	5	18	9	3	0	0	0	0	0	0
SOUTH CENTRAL COAST AIR BASIN	6	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH COAST AIR BASIN	94	76	69	53	67	53	49	39	58	64	44	39	28	19	20	14	17	12

Table A-16

Nitrogen Dioxide (ppm)

Peak 1-Hour Indicator

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN																		
LAKE COUNTY AIR BASIN	0.048																	
LAKE TAHOE AIR BASIN	0.077	0.074	0.073	0.085	0.078	0.078	0.073	0.076	0.073	0.074	0.078	0.076	0.078	0.062	0.061	0.062	0.058	0.057
MOJAVE DESERT AIR BASIN	0.135	0.144	0.141	0.148	0.138	0.137	0.130	0.135	0.112	0.100	0.101	0.107	0.266	0.244	0.126	0.124	0.119	0.097
MOUNTAIN COUNTIES AIR BASIN							0.046											
NORTH CENTRAL COAST AIR BASIN	0.130	0.112	0.101	0.099	0.066	0.072	0.083	0.083	0.077	0.072	0.071	0.068	0.062	0.064	0.064	0.062	0.058	0.056
NORTH COAST AIR BASIN														0.054	0.054	0.053	0.050	0.048
NORTHEAST PLATEAU AIR BASIN																		
SACRAMENTO VALLEY AIR BASIN	0.183	0.120	0.119	0.115	0.103	0.110	0.112	0.115	0.123	0.117	0.116	0.122	0.128	0.126	0.115	0.106	0.101	0.095
SALTON SEA AIR BASIN	0.115	0.109	0.141	0.150	0.150	0.124	0.085	0.083	0.084	0.089	0.092	0.092	0.088	0.088	0.153	0.182	0.178	0.165
SAN DIEGO AIR BASIN	0.233	0.245	0.234	0.225	0.183	0.194	0.193	0.204	0.217	0.233	0.211	0.189	0.169	0.155	0.146	0.130	0.129	0.126
SAN FRANCISCO BAY AREA AIR BASIN	0.236	0.234	0.226	0.183	0.187	0.197	0.189	0.188	0.167	0.162	0.156	0.159	0.155	0.141	0.115	0.119	0.116	0.111
SAN JOAQUIN VALLEY AIR BASIN	0.201	0.186	0.173	0.133	0.119	0.144	0.149	0.146	0.144	0.151	0.137	0.134	0.132	0.133	0.131	0.127	0.120	0.114
SOUTH CENTRAL COAST AIR BASIN	0.203	0.151	0.150	0.139	0.141	0.122	0.132	0.130	0.123	0.119	0.119	0.120	0.114	0.104	0.105	0.112	0.115	0.111
SOUTH COAST AIR BASIN	0.433	0.445	0.414	0.378	0.325	0.307	0.303	0.311	0.335	0.323	0.325	0.312	0.311	0.285	0.241	0.229	0.242	0.237

Table A-17

Nitrogen Dioxide (ppm)
Maximum 1-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN																		
LAKE COUNTY AIR BASIN	0.040	0.030																
LAKE TAHOE AIR BASIN	0.120	0.060	0.090	0.080	0.060	0.080	0.080	0.080	0.070	0.070	0.150	0.060	0.060	0.060	0.057	0.059	0.061	0.051
MOJAVE DESERT AIR BASIN	0.120	0.300	0.200	0.150	0.160	0.140	0.150	0.130	0.100	0.120	0.190	0.250	0.240	0.360	0.138	0.140	0.087	0.107
MOUNTAIN COUNTIES AIR BASIN		0.060					0.050	0.040										
NORTH CENTRAL COAST AIR BASIN	0.130	0.120	0.070	0.110	0.060	0.090	0.110	0.070	0.070	0.070	0.060	0.060	0.070	0.070	0.067	0.054	0.060	0.056
NORTH COAST AIR BASIN		0.020							0.030				0.080	0.050	0.079	0.078	0.044	0.061
NORTHEAST PLATEAU AIR BASIN																		
SACRAMENTO VALLEY AIR BASIN	0.140	0.110	0.120	0.110	0.160	0.130	0.120	0.100	0.180	0.130	0.160	0.170	0.190	0.120	0.111	0.099	0.145	0.092
SALTON SEA AIR BASIN	0.130	0.090	0.150	0.160	0.090	0.080	0.080	0.080	0.110	0.090	0.090	0.090	0.090	0.090	0.227	0.217	0.164	0.128
SAN DIEGO AIR BASIN	0.220	0.270	0.200	0.200	0.230	0.210	0.220	0.260	0.280	0.230	0.180	0.160	0.190	0.130	0.157	0.140	0.124	0.142
SAN FRANCISCO BAY AREA AIR BASIN	0.260	0.220	0.160	0.180	0.180	0.190	0.160	0.170	0.160	0.150	0.150	0.150	0.110	0.120	0.107	0.116	0.108	0.118
SAN JOAQUIN VALLEY AIR BASIN	0.210	0.210	0.150	0.150	0.190	0.160	0.190	0.150	0.210	0.210	0.160	0.130	0.190	0.160	0.144	0.119	0.110	0.103
SOUTH CENTRAL COAST AIR BASIN	0.160	0.120	0.180	0.160	0.200	0.160	0.150	0.150	0.160	0.120	0.160	0.160	0.100	0.110	0.133	0.127	0.110	0.115
SOUTH COAST AIR BASIN	0.540	0.450	0.410	0.470	0.350	0.350	0.330	0.420	0.540	0.340	0.280	0.380	0.300	0.260	0.247	0.239	0.250	0.200

Table A-18

Nitrogen Dioxide (ppm)
Maximum Annual Average

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN																		
LAKE COUNTY AIR BASIN	0.008																	
LAKE TAHOE AIR BASIN	0.015	0.014	0.014	0.010	0.012	0.011	0.010	0.012	0.012	0.012	0.012	0.012	0.011	0.012	0.012	0.011	0.011	0.011
MOJAVE DESERT AIR BASIN	0.020	0.025	0.025	0.023	0.024	0.025	0.021	0.025	0.023	0.026	0.024	0.028	0.026	0.026	0.027	0.023	0.021	0.020
MOUNTAIN COUNTIES AIR BASIN							0.009											
NORTH CENTRAL COAST AIR BASIN	0.017	0.015	0.012	0.011	0.014	0.015	0.014	0.013	0.014	0.014	0.012	0.011	0.012	0.012	0.012	0.011	0.011	0.010
NORTH COAST AIR BASIN														0.009	0.009	0.009	0.013	0.010
NORTHEAST PLATEAU AIR BASIN																		
SACRAMENTO VALLEY AIR BASIN	0.028	0.021	0.019	0.016	0.019	0.021	0.022	0.022	0.025	0.025	0.023	0.024	0.021	0.022	0.022	0.022	0.022	0.019
SALTON SEA AIR BASIN	0.019	0.019	0.025	0.027	0.014	0.020	0.019	0.019	0.022	0.024	0.021	0.021	0.021	0.019	0.021	0.021	0.020	0.015
SAN DIEGO AIR BASIN	0.035	0.043	0.030	0.027	0.031	0.032	0.034	0.032	0.035	0.038	0.029	0.029	0.027	0.023	0.024	0.026	0.022	0.024
SAN FRANCISCO BAY AREA AIR BASIN	0.035	0.033	0.032	0.030	0.032	0.035	0.033	0.031	0.032	0.034	0.030	0.031	0.027	0.027	0.028	0.027	0.025	0.025
SAN JOAQUIN VALLEY AIR BASIN	0.040	0.034	0.030	0.030	0.028	0.031	0.032	0.030	0.032	0.033	0.031	0.030	0.027	0.027	0.030	0.029	0.029	0.024
SOUTH CENTRAL COAST AIR BASIN	0.027	0.023	0.024	0.027	0.031	0.030	0.028	0.024	0.024	0.027	0.025	0.024	0.022	0.023	0.024	0.024	0.022	0.020
SOUTH COAST AIR BASIN	0.071	0.071	0.062	0.059	0.057	0.060	0.061	0.055	0.061	0.057	0.055	0.055	0.051	0.050	0.050	0.046	0.048	0.043

Table A-19

Sulfur Dioxide (ppm)
Peak 1-Hour Indicator

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN																		
LAKE COUNTY AIR BASIN																		
LAKE TAHOE AIR BASIN	0.03																	
MOJAVE DESERT AIR BASIN	0.11	0.02	0.02	0.03	0.04	0.04	0.03	0.03	0.06	0.06	0.06	0.03	0.02	0.02	0.02	0.02	0.01	0.02
MOUNTAIN COUNTIES AIR BASIN	0.02																	
NORTH CENTRAL COAST AIR BASIN	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.04	0.04	0.03
NORTH COAST AIR BASIN														0.01	0.02			
NORTHEAST PLATEAU AIR BASIN																		
SACRAMENTO VALLEY AIR BASIN	0.09	0.02	0.02	0.02	0.02	0.02	0.02		0.05	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02
SALTON SEA AIR BASIN	0.03	0.03	0.03	0.02											0.05	0.04	0.04	0.04
SAN DIEGO AIR BASIN	0.06	0.07	0.08	0.06	0.09	0.05	0.05	0.05	0.05	0.06	0.05	0.06	0.05	0.05	0.07	0.08	0.08	0.08
SAN FRANCISCO BAY AREA AIR BASIN	0.17	0.06	0.10	0.05	0.04	0.07	0.08	0.04	0.05	0.06	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.04
SAN JOAQUIN VALLEY AIR BASIN	0.23	0.15	0.14	0.12	0.09	0.09	0.08	0.08	0.05	0.06	0.06	0.04	0.04	0.03	0.02	0.02	0.03	0.03
SOUTH CENTRAL COAST AIR BASIN	0.12	0.12	0.14	0.13	0.09	0.34	0.29	0.28	0.21	0.11	0.15	0.12	0.11	0.09	0.03	0.14	0.14	0.12
SOUTH COAST AIR BASIN	0.13	0.13	0.11	0.10	0.11	0.10	0.09	0.07	0.06	0.05	0.06	0.05	0.05	0.05	0.10	0.05	0.05	0.06

Table A-20

Sulfur Dioxide (ppm)

Maximum 1-Hour Concentration

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
GREAT BASIN VALLEYS AIR BASIN																		
LAKE COUNTY AIR BASIN																		
LAKE TAHOE AIR BASIN	0.02																	
MOJAVE DESERT AIR BASIN	0.15	0.03	0.02	0.09	0.03	0.03	0.03	0.01	0.08	0.08	0.08	0.03	0.03	0.03	0.07	0.02	0.02	0.04
MOUNTAIN COUNTIES AIR BASIN	0.02																	
NORTH CENTRAL COAST AIR BASIN	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.03	0.02	0.02	0.03	0.02	0.01	0.05	0.04	0.06	0.01	0.01
NORTH COAST AIR BASIN		0.02							0.03				0.03	0.01	0.01			
NORTHEAST PLATEAU AIR BASIN																		
SACRAMENTO VALLEY AIR BASIN	0.02	0.02	0.02	0.02	0.02	0.08	0.02		0.05	0.04	0.04	0.03	0.02	0.04	0.03	0.01	0.01	0.04
SALTON SEA AIR BASIN	0.03	0.01	0.01	0.01											0.06	0.04	0.04	0.04
SAN DIEGO AIR BASIN	0.13	0.12	0.13	0.07	0.09	0.08	0.06	0.11	0.09	0.08	0.06	0.11	0.12	0.06	0.10	0.08	0.09	0.08
SAN FRANCISCO BAY AREA AIR BASIN	0.14	0.09	0.18	0.24	0.37	0.18	0.12	0.16	0.13	0.09	0.08	0.05	0.10	0.11	0.07	0.05	0.06	0.10
SAN JOAQUIN VALLEY AIR BASIN	0.19	0.25	0.11	0.15	0.11	0.14	0.11	0.07	0.07	0.06	0.14	0.07	0.03	0.03	0.03	0.03	0.06	0.02
SOUTH CENTRAL COAST AIR BASIN	0.17	0.27	0.16	0.10	0.21	0.35	0.38	0.15	0.23	0.22	0.75	0.14	0.17	0.57	0.10	0.25	0.25	0.21
SOUTH COAST AIR BASIN	0.17	0.16	0.14	0.12	0.32	0.08	0.13	0.09	0.15	0.11	0.31	0.14	0.15	0.09	0.04	0.14	0.06	0.10

Table A-21