

**PROPOSED  
AREA DESIGNATIONS AND MAPS**

***STAFF REPORT:  
INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING***

**To be considered by the  
California Air Resources Board  
November 16, 2000  
Sacramento, California**

**Report Release Date: September 29, 2000**

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## EXECUTIVE SUMMARY

### A. BACKGROUND

State law (refer to Attachment A) requires the Air Resources Board (ARB or Board) to establish and annually review area designations for California. Areas are designated attainment, nonattainment, nonattainment-transitional, or unclassified with respect to the State ambient air quality standards (State standards). Area designations are based on the air quality data from the most recently available three years. For instance, this year's area designations are based on data collected from 1997-99.

In addition, State law (Attachment A) requires the Board to establish area designation criteria and periodically review the criteria, thereby ensuring their continued relevance. The designation criteria (Attachment B) describe the procedures the Board must use in determining an area's designation status with respect to the State standards. In summary, the designation criteria specify:

- The data the Board will use for making the area designations;
- How the Board will determine the size of designated areas;
- How the Board will determine whether an area qualifies as attainment, nonattainment, nonattainment-transitional, or unclassified; and
- The requirement for an annual review of the area designations by the Board's Executive Officer.

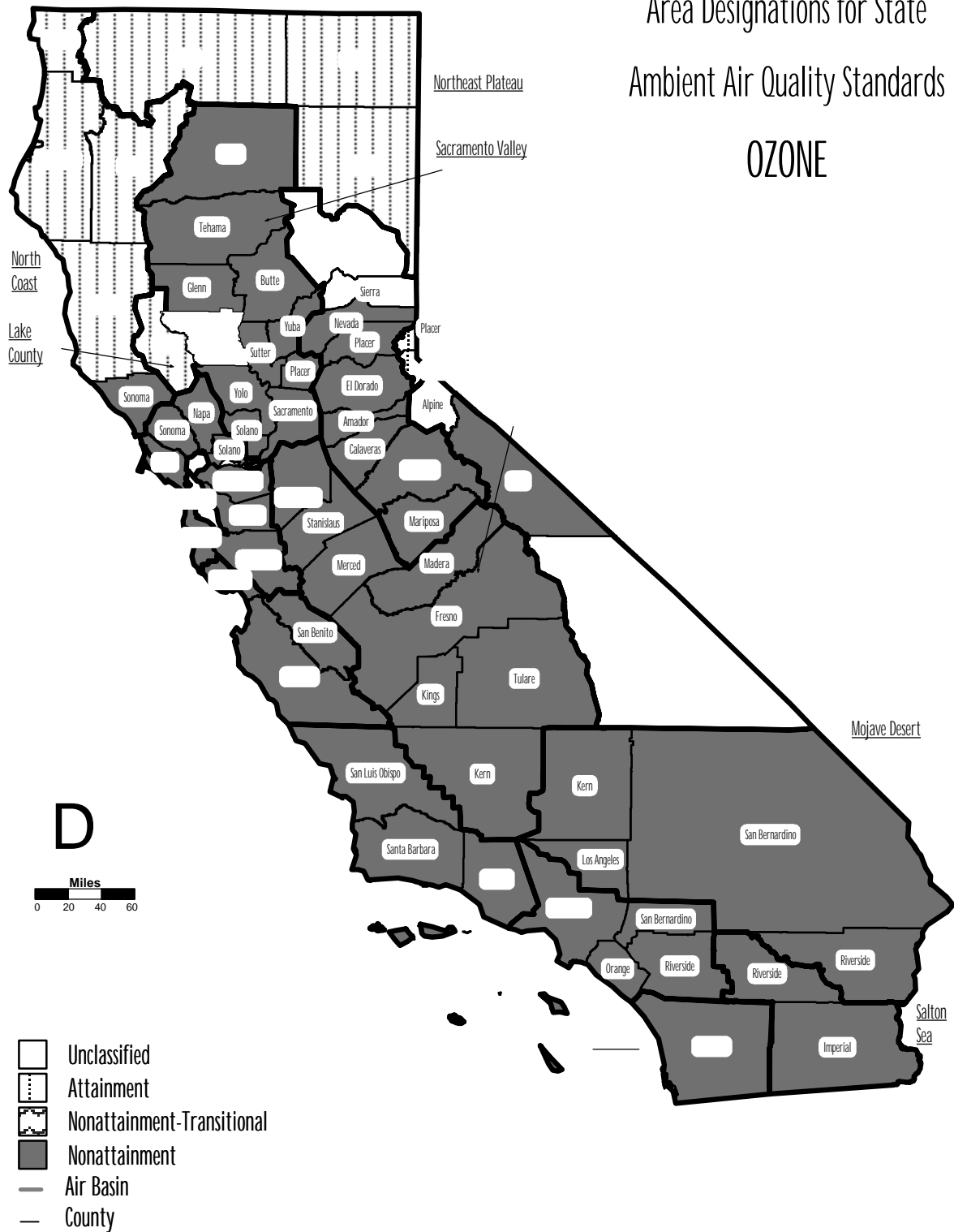
State law also requires the Board to annually publish maps illustrating area designations for both the State and National Ambient Air Quality Standards. The maps and tables, as provided in Attachment C, reflect the area designations for the State standards as proposed in Chapter II of this staff report and the area designations for the national standards as currently in effect. The map of the area designations for the State ozone standard is also shown on the following page. (Further information regarding the area designations for the national standards may be obtained by contacting the United States Environmental Protection Agency, or visiting its web site at <http://www.epa.gov/airprog/oar/oaqps/greenbk>.)

### B. PROPOSED AMENDMENTS

Based on the review of data from 1997-99, the staff is proposing three amendments to the area designations. The proposed amendments to the area designations would redesignate Butte, Glenn, and Mono Counties from nonattainment-

FIGURE 1

# Area Designations for State Ambient Air Quality Standards OZONE



transitional to nonattainment for ozone by operation of law. The staff is not proposing any changes to the designation criteria this year. The text of the amendments to the area designations is shown in Attachment D. The air quality data used for making the designations are summarized in Attachment E. Finally, the notices distributed by the staff regarding the proposed amendments are shown in Attachment F.

### **C. IMPACTS OF PROPOSED AMENDMENTS**

The proposed amendments to the area designations would redesignate three areas from nonattainment-transitional to nonattainment for ozone. Since nonattainment-transitional is a subcategory of nonattainment, these areas are still subject to the same requirements as nonattainment areas. Nonattainment (and nonattainment-transitional) districts must develop and implement plans for attaining the State standard for ozone (as well as for carbon monoxide, nitrogen dioxide, and sulfur dioxide). It may be appropriate for a district that reverts back to nonattainment (from nonattainment-transitional) to review, and perhaps modify, its attainment plan. However, it is not anticipated that any new control measures will need to be implemented as a result of this year's proposed amendments from nonattainment-transitional to nonattainment.

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# **CHAPTER I**

## **BACKGROUND**

### **A. INTRODUCTION**

This chapter gives some background information on the criteria used in making the area designations and on the area designations themselves. The following sections describe the legal requirements, the criteria used in making the area designations, the implications of being redesignated, and the area designation review process.

### **B. LEGAL REQUIREMENTS**

Health & Safety Code (H&SC) section 39607(e) requires the Air Resources Board (ARB or Board) to establish and periodically review the criteria for designating areas as attainment or nonattainment for the State standards (see Attachment A). The Board originally adopted the required designation criteria in June 1989. The Board subsequently amended the designation criteria in June 1990, May 1992, December 1992, November 1993, November 1995, and September 1998.

H&SC section 39608 requires the Board to use the designation criteria in designating areas of California as attainment, nonattainment, nonattainment-transitional, or unclassified for the State standards (see Attachment A). Areas that cannot be designated as attainment or nonattainment are designated as unclassified. The area designations are made on a pollutant-by-pollutant basis for all pollutants listed in the California Code of Regulations (CCR), title 17, section 70200. The nine affected pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter (PM<sub>10</sub>), sulfates, lead, hydrogen sulfide, and visibility reducing particles. H&SC section 39608 also requires the Board to review the area designations each year and update them as new information becomes available.

In addition, H&SC section 40718 requires the Board to publish maps showing the areas with one or more measured violations of any State or national ambient air quality standard (see Attachment A). The maps and summary tables provided in Attachment C of this staff report fulfill this requirement. The maps and tables for the State standards reflect the proposed amendments to the area designations as described in Chapter II of this staff report. The maps and tables for the national standards reflect the current federal area designations, as promulgated by the United States Environmental Protection Agency (U. S. EPA) (40 CFR 81.305, as last amended at 65 Fed. Reg. 45,182 (July 20, 2000)).

## **C. SUMMARY OF THE DESIGNATION CRITERIA**

### **1. General Provisions**

The designation criteria describe the procedures the Board must use in determining an area's designation status with respect to the State standards. The text of the designation criteria is shown in Attachment B. In summary, the designation criteria specify:

- The data the Board will use for making the area designations;
- How the Board will determine the size of designated areas;
- How the Board will determine whether an area qualifies as attainment, nonattainment, nonattainment-transitional, or unclassified; and
- The requirement for an annual review of the area designations by the Board's Executive Officer.

### **2. Data to Use**

To the extent possible, the Board makes area designations for each pollutant based on recent ambient air quality data. The air quality data must be **data for record**, which are those air quality data that satisfy specific siting and quality assurance procedures established by the U.S. EPA and adopted by the Board. Generally, data for record are those data collected by or under the direction of the Board or the air pollution control districts or air quality management districts (districts). Data from other sources may also be used as long the same requirements are met. When adequate and recent air quality data are not available, the Board may use other types of information to determine an appropriate area designation. These other types of information may include historical air quality data, emission data, meteorological data, topographical data, and data relating to the characteristics of population or emissions.

### **3. Size of Designated Areas**

The size of the area designated for a pollutant may vary depending on the nature of the pollutant, the location of contributing emission sources, the meteorology, and the topographic features. Normally, an air basin is the area designated for ozone, nitrogen dioxide, PM<sub>10</sub>, sulfates, and visibility reducing particles. A county (or the portion of a county located within an air basin) is normally the area designated for carbon monoxide, sulfur dioxide, lead, and hydrogen sulfide. In both cases, however, the Board may designate a smaller area if the Board finds that the smaller area has

distinctly different air quality. This finding is based on a review of the air quality data, meteorology, topography, and the distribution of population and emissions. Sources with emissions that contribute to a violation must be included within the smaller area. To the extent practicable, the Board uses political boundary lines to define a smaller designated area.

#### 4. Highly Irregular or Infrequent Events

While area designations for State standards are based on ambient air quality data, the designation criteria provide for excluding certain high values. In particular, the designation criteria provide for excluding exceedances affected by “highly irregular or infrequent events” because it is not reasonable to mitigate these exceedances through the regulatory process. Appendix 2 to the designation criteria (refer to Attachment B) defines three types of highly irregular or infrequent events:

- Extreme concentration events;
- Exceptional events; and
- Unusual concentration events.

An **extreme concentration event** is identified by a statistical procedure that calculates the concentration that is not expected to occur more frequently than once per year. This value is commonly referred to as the Expected Peak Day Concentration (EPDC). Adverse meteorology is one potential cause of an extreme concentration event. Measured concentrations that are higher than the EPDC are identified as extreme concentrations and are not considered as violations of the State standard. A specific, identifiable cause is not necessary for an exceedance to be determined as an extreme concentration.

A pollutant-specific EPDC is calculated for each monitoring site using air quality data measured at the site during a three-year period. The site-specific EPDCs for ozone, carbon monoxide, nitrogen dioxide, PM<sub>10</sub>, and hydrogen sulfide are listed in Attachment E. These EPDCs are based on air quality data for 1997 through 1999. This is the most recent three-year period for which data are available and is the same three-year period used in reviewing the area designations described in this staff report. The data for sulfur dioxide, sulfates, lead, and visibility reducing particles are not presented in Attachment E because there were no violations of the relevant State standards or the data are insufficient for determining the appropriate EPDCs. Complete data for all pollutants except visibility reducing particles will be available at a later date in electronic format (See page E-1 for information regarding the availability of complete data for these pollutants.)

An **exceptional event** is a specific, identifiable event that causes an

exceedance of a State standard but is beyond reasonable regulatory control. An exceptional event may be caused by an act of nature (for example, a forest fire or a severe wind storm) or it may be of human origin (for example, a chemical spill or industrial accident).

An **unusual concentration event** is an anomalous exceedance of a State standard that cannot be identified as an extreme concentration event or an exceptional event. Unusual concentration events can be identified only for areas designated as attainment or unclassified at the time of the exceedance. In identifying such events, the Executive Officer must make specific findings based on relevant information (refer to Appendix 2 to the designation criteria in Attachment B). An area may retain its attainment or unclassified designation based on the exclusion of one or more exceedances affected by an unusual concentration event for up to three consecutive years. If an exceedance occurs during the fourth year, the area is redesignated as nonattainment, unless the exceedance can be excluded as an extreme concentration event or an exceptional event.

## 5. Designation Categories

The designation criteria specify four designation categories: nonattainment, nonattainment-transitional, attainment, and unclassified. The Board will designate an area as **nonattainment** for a pollutant if air quality data show that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating an area as nonattainment.

The **nonattainment-transitional** designation is a subcategory of nonattainment . The Board will designate an area as nonattainment-transitional for a pollutant other than ozone if air quality data show that a State standard for that pollutant was violated two or fewer times at each of the sites in the area during the latest calendar year. In addition, an evaluation of recent air quality data trends and meteorological and emission data must show that the air quality in the area either has stabilized or has improved. Finally, each site in the area must be expected to reach attainment for the pollutant within three years.

The nonattainment-transitional subcategory also can apply to designations for ozone. Under H&SC section 40925.5(a), the ozone nonattainment-transitional designation is made **by operation of law** (refer to Attachment A). Specifically, a nonattainment district or a portion of a district within an air basin is designated as nonattainment-transitional for ozone by operation of law if air quality data show that the State ozone standard was exceeded three or fewer times at each of the sites in the district or in an area that is a portion of a district within an air basin during the most

recent calendar year for which air quality data are available. In determining the nonattainment-transitional designation for ozone, all exceedances are counted, regardless of whether any exceedance was identified as being affected by a highly irregular or infrequent event. Although the nonattainment-transitional designations for ozone are made by operation of law, the Board has adopted guidelines for use in evaluating whether an area satisfies the requirements of H&SC section 40925.5(a). These guidelines are specified in CCR, title 17, section 70303.5 of the designation criteria (refer to Attachment B).

In 1998, the Board approved an amendment to the designation criteria to provide for a review of data for the current calendar year. Since the nonattainment-transitional designation is based on only one year of data, it can be unstable due to year-to-year changes in meteorology. To provide more stability to the nonattainment-transitional designations, the amendment added a provision for reviewing data collected during the current calendar year. If data for the current year show more than three exceedances at any monitoring location in the area, thereby ensuring that the area would not qualify as nonattainment-transitional during the next annual review, the staff would propose that the area be designated nonattainment.

In contrast to nonattainment and nonattainment-transitional, the Board will designate an area as **attainment** for a pollutant if the data show that the State standard for that pollutant was not violated during the previous three calendar years. Again, exceedances affected by highly irregular or infrequent events are not considered violations and, therefore, are not used as a basis for designating areas as nonattainment. As a result, an area could have measured concentrations that exceed a State standard and still be designated as attainment. Finally, the Board will designate an area as **unclassified** for a pollutant if the available data do not support a designation of nonattainment or attainment.

## **D. IMPLICATIONS OF THE AREA DESIGNATIONS**

### **1. Areas Redesignated as Nonattainment**

A district that includes an area that is redesignated as nonattainment for a particular pollutant (referred to as a nonattainment district) experiences two principal consequences under the law. First, State law requires nonattainment districts to develop plans for attaining the State standards for ozone, carbon monoxide, nitrogen dioxide, and sulfur dioxide. The nonattainment districts must submit these attainment plans to the Board for approval (H&SC section 40911). Ozone nonattainment districts that are impacted by transport from upwind areas (in other words, ozone violations are caused by emissions transported from upwind areas located outside the district) are required to develop ozone attainment plans for mitigating only those violations that

would occur in the absence of the transport contribution (H&SC sections 39610(b) and 40912). In this case, the responsible upwind district(s) would be required to mitigate the ozone violations in the downwind nonattainment area that are caused by *overwhelming* transport (see CCR, title 17, section 70600).

A district with an area that is redesignated as nonattainment for any of the remaining five pollutants -- PM<sub>10</sub>, sulfates, lead, hydrogen sulfide, or visibility reducing particles -- is not subject to any specific statutory planning requirements. However, such districts must adopt and enforce rules and regulations to expeditiously attain the State standards for these five pollutants (H&SC sections 40001 and 40913). Furthermore, a nonattainment district may develop and implement an attainment plan or adopt regulations to control the emissions that contribute to these pollutants (H&SC section 40926). The second consequence of a nonattainment designation is that the Board may require a nonattainment district to collect additional permit fees from large, nonvehicular sources located in the nonattainment area (H&SC section 39612; CCR, title 17, sections 90800.5 through 90803). Only those sources which are authorized by district permits to emit 500 tons per year or more of any nonattainment pollutant or its precursors are subject to the additional permit fees. The fees are used to help defray the costs of State programs related to nonvehicular sources and implemented under the California Clean Air Act of 1988 (Stats. 1988, ch. 1568). With certain exceptions, nonattainment districts also are authorized to levy a fee of up to \$4.00 on motor vehicles registered in the district for the purposes of California Clean Air Act implementation (H&SC sections 44223 and 44225).

## **2. Areas Redesignated as Nonattainment-Transitional**

Nonattainment-transitional is a subcategory of the nonattainment designation. Therefore, a district with a nonattainment area that is redesignated as nonattainment-transitional is still subject to the same requirements as a nonattainment district (refer to discussion in subsection 1, above).

However, in contrast to the nonattainment designation, a nonattainment-transitional designation may signal a change in how these requirements are implemented. For example, a district that currently is implementing an approved attainment plan may determine that some of the additional control measures contained in the attainment plan are not needed to reach attainment by the earliest practicable date. As a result, the nonattainment-transitional designation provides the district with a signal that it may be appropriate to review, and perhaps modify, its approved attainment plan. District actions in response to a nonattainment-transitional designation must be consistent with State and federal regulations and statutes. H&SC section 40925.5 specifically allows a district with an area designated as nonattainment-transitional for ozone to shift some stationary source control measures from the rulemaking calendar to the contingency category if the district finds these

control measures are no longer necessary to accomplish expeditious attainment of the State ozone standard. These actions do not apply to control measures required to mitigate the effects of pollutant transport. The Board may disapprove any action of the district within 90 days if the Board finds that the action will delay expeditious attainment of the State ozone standard.

### **3. Areas Redesignated as Attainment or Unclassified**

State law does not impose any specific planning requirements upon districts with areas redesignated as attainment or unclassified. However, State law does require that the State standards not only be attained but also, maintained. State law requires the districts and the Board to make a coordinated effort to protect and enhance the ambient air quality (H&SC sections 39001 through 39003). As part of this effort, the districts must adopt rules and regulations sufficiently effective to achieve and maintain the State standards (H&SC sections 40001 and 41500).

## **E. PUBLIC NOTIFICATION ON THE AREA DESIGNATION REVIEW PROCESS**

Both the H&SC (section 39608(c)) and the designation criteria (CCR, title 17, section 70306) require the Board to review the area designations annually and to redesignate areas as new information becomes available (refer to Attachments A and B, respectively). As part of this review process, the staff distributed two notices. These notices are shown in Attachment F.

On April 3, 2000, the staff sent a letter to all districts notifying them of the May 1, 2000, deadline for requesting a change in an area's designation, submitting information for consideration in the annual review process, or requesting a nonattainment-transitional designation for pollutants other than ozone. The nonattainment-transitional designations for ozone are made by operation of law and confirmed by the Board's staff. As a result, the staff received one letter from the Siskiyou County Air Pollution Control District requesting a redesignation from nonattainment to nonattainment-transitional for PM<sub>10</sub>. However, as the staff pointed out in a letter of response to the District, the designation criteria state that for an area to be designated nonattainment-transitional for pollutants other than ozone (i.e. PM<sub>10</sub>), samples must be "routinely collected every day." PM<sub>10</sub> samples are collected every six days and, hence, do not meet the criteria for nonattainment-transitional.

On August 1, 2000, the staff distributed a general announcement for a public consultation meeting held August 21, 2000. This announcement included a discussion of the staff's proposed amendments to the area designations. As required by the designation criteria, the proposed area redesignations are based on the staff's review of the air quality data collected during the most recent three calendar years (1997-99).





## CHAPTER II

### PROPOSED AMENDMENTS TO THE AREA DESIGNATIONS

#### A. INTRODUCTION

This chapter describes and explains the proposed amendments to the area designations based on changes in air quality during the most recent three calendar years (1997-99) from the previous three-year period (1996-98).

The proposed redesignations are based on air quality data for record as defined in section 70301 of the designation criteria. The air quality data used for redesignating an area as nonattainment must be representative of the averaging time specified in the State standard. The air quality data used for qualifying an area as attainment or nonattainment-transitional must meet the representativeness and completeness criteria. The specific requirements for evaluating data representativeness and data completeness are given in Appendices 1 and 3, respectively, of the California Code of Regulations (CCR), title 17, sections 70300 through 70306 (refer to Attachment B).

As required by the designation criteria, the staff reviewed the air quality data collected during the most recent three-year period of 1997 through 1999. Based on these data, redesignations are appropriate for ozone only. Section B of this chapter describes the areas and circumstances for which the staff is proposing area redesignations for ozone. No action is proposed for the remaining pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, sulfates, lead, hydrogen sulfide, and visibility reducing particles. Therefore, the current area designations for these eight pollutants would remain unchanged.

Section C describes a number of areas where the air quality data would appear to signal a change in the area designation might be warranted but, for reasons given in each subsection, the staff does not recommend a redesignation.

Section D summarizes the staff's recommendation to the Board regarding the amendments to a specific section of the area designation regulations.

#### Designation Value (DV)

The following sections make reference to the Designation Value (DV), which is the measured ambient concentration used to determine the attainment status of a given area. The DV is defined as follows:

The Designation Value (DV) for a pollutant for a given monitoring site, for purposes of making designations for the State ambient air quality standards for the area in which the site is located, is the highest concentration after excluding measurements affected by highly irregular or infrequent events. Specifically, the DV is the highest measured concentration during a specified three-year period that is equal to or lower than the Expected Peak Day Concentration (EPDC), after the calculated EPDC and the measured concentrations are rounded to the level of precision of the relevant State standard. Determinations of EPDCs do not exclude concentrations affected by exceptional events or unusual concentration events. However, measured concentrations identified as affected by an exceptional event or unusual concentration event are not used in determining the DV.

For example, if the calculated ozone EPDC for a site is 0.096 parts per million (ppm), and the four highest measured concentrations are 0.125, 0.113, 0.102, and 0.094 ppm, then the DV is equal to 0.10 ppm. This is because the EPDC of 0.096 ppm would be first rounded to 0.10 ppm (consistent with the precision of the ozone standard which is two decimal places), and 0.10 ppm is the highest measured concentration equal to or lower than the rounded EPDC after the measured concentrations are rounded to two decimal places. The measured concentrations of 0.125 ppm (rounded to 0.13 ppm) and 0.113 ppm (rounded to 0.11 ppm) are higher than the rounded EPDC of 0.10 ppm, but are excluded as extreme concentrations and not considered as the DV.

When there are less than three complete years of air quality data, the calculated EPDC may not be considered valid for an attainment determination. If the calculated EPDC is not valid, the DV is simply the highest measured concentration at the site during the specified three-year period, after excluding measurements affected by exceptional or unusual concentration events. Further explanation on determining the validity of EPDCs and a tabulation of the DVs and EPDCs for the 1997-1999 period, as used for determining area designations, are given in Attachment E.

## **B. PROPOSED AREA REDESIGNATIONS FOR OZONE**

The State standard for ozone is a one-hour average concentration of 0.09 ppm not to be exceeded (CCR, title 17, section 70200). Under the designation criteria, the geographic area for ozone designations is generally the air basin, unless the Board finds that there are areas within an air basin that are distinctly different (refer to Attachment B). Health & Safety Code (H&SC) section 40925.5 requires that ozone redesignations to nonattainment-transitional by operation of law be made at the district level under specified conditions. Because designations are normally made by air basin or county portion thereof, the staff has previously proposed and the Board has concurred, that nonattainment-transitional designations be also specified by air basin

or county (CCR, title 17, section 60201).

Section 40925.5(a) of the H&SC provides that a district that is designated as nonattainment for ozone will be redesignated as nonattainment-transitional by operation of law if complete data show that there are three or fewer exceedances of the State ozone standard at every monitoring site in the district during a single calendar year. If these criteria are not met in subsequent years, then the district (or county) reverts back to nonattainment.

Based on air quality data from 1999, Butte, Glenn, and Mono Counties no longer meet the criteria for nonattainment-transitional for ozone. Therefore, the staff is proposing that these counties be redesignated to nonattainment by operation of law. The specific air quality data for each area are described in the following subsections.

### **1. Butte County**

Butte County is located in the Sacramento Valley Air Basin (SVAB). The SVAB is currently designated as nonattainment for the State ozone standard. Butte County (in addition to the Colusa County and Glenn County) is currently classified as nonattainment-transitional.

The only ozone monitoring within the County during 1997 through 1999 occurred at the Chico-Manzanita site. In 1996, this site had only two exceedances of the State ozone standard and, by operation of law, Butte County qualified as nonattainment-transitional in 1997. In 1997 and 1998, the site had zero and two exceedances, respectively. In 1999, however, the Chico-Manzanita site had seven exceedances. Since there were more than three exceedances of the State ozone standard during 1999 (the most recent calendar year), the County no longer meets the nonattainment-transitional criteria. Therefore, the staff confirms the redesignation of Butte County as nonattainment for the State ozone standard by operation of law. However, the district staff believes that some of these exceedances may have been impacted by wildfires. Although these types of events are not excluded from the designation of nonattainment-transitional, they are considered when evaluating a district's plan. The ARB staff believes that no new control measures will be required as a result of this redesignation.

### **2. Glenn County**

Glenn County is located in the Sacramento Valley Air Basin (SVAB). The SVAB is currently designated as nonattainment for the State ozone standard. Glenn County is currently classified as nonattainment-transitional.

The only ozone monitoring within the County occurs at the Willows - East Laurel site. In 1997, Glenn County qualified as nonattainment-transitional because the Willows site had only one exceedance the prior year. In 1998, the Willows site had two exceedances. In 1999, however, the Willows site had four exceedances. Since there were more than three exceedances of the State ozone standard during 1999 (the most recent calendar year), the County no longer meets the nonattainment-transitional criteria. Therefore, the staff confirms the redesignation of Glenn County as nonattainment for State ozone standard by operation of law. However, the ARB staff believes that some of these exceedances may have been impacted by wildfires. Although these types of events are not excluded from the designation of nonattainment-transitional, they are considered when evaluating a district's plan. The ARB staff believes that no new control measures will be required as a result of this redesignation.

### **3. Mono County**

Mono County is part of the Great Basin Unified Air Pollution Control District located in the Great Basin Valleys Air Basin (GBVAB). Mono County is currently designated nonattainment-transitional for ozone. The remainder of the GBVAB is designated as unclassified.

The only ozone monitoring that took place in Mono County during the 1997-99 period occurred at the District site located at Mammoth Lakes. In 1994, Mono County qualified as nonattainment-transitional because the Mammoth Lakes site did not have any exceedances of the State standard in 1993, down from five exceedances the year before. The Mammoth Lakes site has not had more than three exceedances since 1992.

The redesignation of Mono County from nonattainment-transitional to nonattainment is being proposed because the ozone monitor in Mammoth Lakes was shut down in 1998. Therefore, the nonattainment-transitional designation can no longer be documented. Hence, the staff confirms the redesignation of Mono County as nonattainment for the State ozone standard by operation of law.

### **C. AREAS NOT RECOMMENDED FOR REDESIGNATION**

This section describes several areas of the State that are not recommended for redesignation. These areas fall into one of two categories: (1) the area's air quality appears to qualify it for the attainment or nonattainment-transitional designation, but the data are incomplete, the site(s) do not meet the criteria for measuring the highest concentrations in the area, or the size of the designation area for that particular pollutant should be on a larger scale; or (2) the area has one or more exceedances that would signal a nonattainment designation but the exceedance(s) are excluded as

affected by a highly irregular or infrequent event. The specifics of each case are described below.

## **1. Colusa County for Ozone**

Colusa County is located in the Sacramento Valley Air Basin (SVAB). The SVAB is currently designated as nonattainment for the State ozone standard. Colusa County is currently designated nonattainment-transitional.

The only ozone monitoring in the County occurs at the Colusa – Sunrise Boulevard site. The 1999 Expected Peak Day Concentration (EPDC) for this site is 0.09 parts per million (ppm). The Designation Value (DV) for the site is also 0.09 ppm. A DV of 0.09 ppm, equal to but not exceeding the State standard, would seem to indicate that the County qualifies as attainment. However, the County does not qualify for attainment because the geographic area for ozone designations is generally the air basin. In order to designate smaller areas for ozone, the Board must find that the smaller area has distinctly different air quality deriving from sources and conditions not affecting the entire basin. The staff does not recommend that the Board find Colusa County to be distinctly different from the SVAB as a whole. Therefore, the staff does not recommend any change to Colusa County's nonattainment-transitional designation for the State ozone standard.

## **2. Inyo County for Ozone**

Inyo County is located in the Great Basin Valleys Air Basin. Currently, Inyo County is designated as unclassified for the State ozone standard.

The National Park Service has been collecting ozone data at a site in the Death Valley National Park. During the period from 1997-99, the ozone data were sufficient for calculating a valid EPDC of 0.09 ppm. The DV is also 0.09 ppm, which equals (but does not exceed) the State ozone standard. This would appear to qualify Inyo County as attainment for ozone.

However, a closer examination of the data reveals that the data are not complete and representative during two important summer periods. Specifically, ozone data were incomplete for nine days and not representative for 14 days during May 1997. In addition, nine days did not meet the representativeness criteria during July 1998. Thus, the data do not meet the criteria of being 75 percent complete for each of these two months.

Because the representativeness and completeness criteria were not met for this site, the staff does not recommend any change to Inyo County's unclassified designation for the State ozone standard.

### **3. Los Angeles County (Mojave Desert Air Basin portion) for Ozone**

The Antelope Valley Air Pollution Control District (APCD) comprises the Los Angeles County portion of the Mojave Desert Air Basin (MDAB). The entire MDAB, including Los Angeles County, is currently designated as nonattainment for the State ozone standard.

The only ozone monitoring occurring within the Los Angeles County portion of MDAB is at the Lancaster – West Pondera Street site. It is expected to measure high ozone concentrations within the District. The data for 1999 (and 1998) meet the representativeness and completeness criteria and indicates that Lancaster had only one exceedance in 1999 (24 in 1998). Since there were not any sites within the County that had more than three exceedances of the State standard during 1999 (the most recent calendar year), it would appear that the County qualifies as nonattainment-transitional.

However, a 1998 amendment to the designation criteria provides for a review of data for the current calendar year. If data for the current year (i.e. 2000) show more than three exceedances at any monitoring location in the area, thereby ensuring that the area would not qualify as nonattainment-transitional during the next annual review, the staff would propose that the area be designated nonattainment. A review of the available 2000 data for the Lancaster site shows that there have been more than three exceedances of the State ozone standard. Therefore, the staff does not recommend any change to Los Angeles County's (MDAB portion) nonattainment designation for the State ozone standard.

### **4. North Central Coast Air Basin for Ozone**

The North Central Coast Air Basin (NCCAB) is currently classified as nonattainment for the State ozone standard. There are ten monitoring sites within the Basin with the sites at Pinnacles and Hollister typically measuring the highest values.

The Pinnacles and Hollister sites had two and zero exceedances of the State ozone standard in 1999, respectively. The **high-day coverage** for these sites, and all other sites within the Basin, is over 90 percent. The high-day coverage is the percentage of "expected high days" that are complete during the year. This would seem to indicate that the Basin qualifies as nonattainment-transitional.

However, a closer examination of the data reveals that data at Hollister are not complete and representative during two important summer periods. Specifically, ozone data were incomplete for 12 days and not representative for 16 days in June 1999. In addition, 14 days did not meet the representativeness criteria at Pinnacles in July 1999. Thus, the data do not meet the criteria of being 75 percent complete for each of these two months. If complete data were available for these two periods, it is possible that there might have been additional exceedances. Because the data do not meet the criteria for completeness or representativeness, a nonattainment-transitional designation is not appropriate for the NCCAB. Therefore, staff does not recommend any change to NCCAB's nonattainment designation for the State ozone standard.

## **5. San Luis Obispo County for Ozone**

San Luis Obispo County is located in the South Central Coast Air Basin (SCCAB). The entire SCCAB, including San Luis Obispo County, is currently designated as nonattainment for the State ozone standard.

There are seven ozone monitoring sites within the County, with the Atascadero and Paso Robles sites typically measuring the highest values in the County. The Paso Robles and Atascadero sites each had one and zero exceedances in 1999, respectively. There was one other exceedance in the County during 1999 (at Morro Bay). Since all seven sites had three or fewer exceedances of the State ozone standard during 1999 (the most recent calendar year), it would appear that the County would qualify for the nonattainment-transitional designation.

However, as pointed out earlier, a 1998 amendment to the designation criteria provides for a review of data for the current calendar year. If data for the current year (i.e. 2000) show more than three exceedances at any monitoring location in the area, thereby ensuring that the area would not qualify as nonattainment-transitional during the next annual review, the staff would propose that the area be designated nonattainment. As part of the 2000 Central California Ozone Study (CCOS), an ozone monitor was established at Red Hills and will become part of the permanent monitoring network. The data for this site are data for record. A review of the available 2000 data for this site shows that there have been more than three exceedances of the State ozone standard. Hence, the staff does not recommend any change to San Luis Obispo County's nonattainment designation for the State ozone standard.

## **6. Santa Barbara County for Ozone**

Santa Barbara County is located in the South Central Coast Air Basin (SCCAB). The SCCAB, including Santa Barbara County, is currently designated as nonattainment for the State ozone standard.

There are 13 ozone monitoring sites within the County, many of which are expected to measure high ozone concentrations. All but two sites met the representativeness and completeness criteria for 1999. These two sites, however, do not typically measure the highest ozone concentrations within the County. All 13 sites had three or fewer exceedances of the State standard during 1999 (the most recent calendar year). Since there were not any sites within the County that had more than three exceedances of the State standard during 1999, it would appear that Santa Barbara County qualifies as nonattainment-transitional.

However, a 1998 amendment to the designation criteria provides for a review of data for the current calendar year. If data for the current year (i.e. 2000) show more than three exceedances at any monitoring location in the area, thereby ensuring that the area would not qualify as nonattainment-transitional during the next annual review, the staff would propose that the area be designated nonattainment. A review of the available 2000 data shows that there have been more than three exceedances of the State ozone standard at the Las Flores Canyon (#1) site in Santa Barbara County. Therefore, the staff does not recommend any change to Santa Barbara County's nonattainment designation for the State ozone standard.

## **7. El Dorado County (Mountain Counties Air Basin portion) for PM<sub>10</sub>**

The State standard for PM<sub>10</sub> is a 24-hour average concentration of 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), not to be exceeded. The portion of El Dorado County located in the Mountain Counties Air Basin (MCAB) is currently designated as nonattainment for the State PM<sub>10</sub> standard.

The monitoring site with PM<sub>10</sub> data in the MCAB portion of El Dorado County is the Placerville-Gold Nugget Way site. For the three-year period of 1997-99, the calculated EPDC for PM<sub>10</sub> at this site is  $56 \mu\text{g}/\text{m}^3$ . There was one exceedance during 1997: a  $62 \mu\text{g}/\text{m}^3$ . Because this exceedance is higher than the valid EPDC, it is excluded as an extreme concentration. The DV at the site is  $49 \mu\text{g}/\text{m}^3$ , which is below the State standard. The data seem to indicate that the MCAB portion of El Dorado County would qualify as attainment for PM<sub>10</sub>.

However, as pointed out in the 1999 review of the area designations, the Placerville-Gold Nugget Way site was originally set up to measure maximum ozone concentrations. While PM<sub>10</sub> monitoring was also included, the site location was not selected for measuring the highest PM<sub>10</sub> concentrations in the area. A staff review of the monitoring site revealed that the site is located in a remote area, away from the center of town where most vehicular and human activities occur. The site is situated on a ridge and isolated from major commercial and residential neighborhoods of Placerville. The site does not appear to reflect or measure the impact of any type of PM<sub>10</sub> sources in the area. Thus, the staff believes that this particular site might not



have recorded all possible PM<sub>10</sub> exceedances in the MCAB portion of El Dorado County. ARB staff is working with district staff in relocating the PM<sub>10</sub> monitor to a location indicative of high PM<sub>10</sub> exposure.

In conclusion, because the Placerville-Gold Nugget Way site does not represent population exposure or highest PM<sub>10</sub> concentrations in the MCAB portion of El Dorado County, the staff does not recommend any change to the nonattainment designation for the MCAB portion of El Dorado County for the State PM<sub>10</sub> standard.

## **8. City of Calexico for Nitrogen Dioxide**

The State standard for nitrogen dioxide is a one-hour average concentration of 0.25 ppm, not to be exceeded. The city of Calexico is located in Imperial County in the Salton Sea Air Basin. The entire Basin is currently designated as attainment for the State nitrogen dioxide standard.

There are two monitoring sites in Imperial County: Calexico – Ethel Street and Calexico – East Street. During the 1997-1999 period, there were two exceedances at the Calexico – Ethel Street site: a 0.257 ppm in 1998 and a 0.286 ppm in 1999. The 1999 calculated EPDC for the Ethel Street site is 0.15 ppm. However, the calculated EPDC is not valid because the high-day coverage for 1997 and for 1998 is 74 percent. Three years of high-day coverage greater than or equal to 75 percent is needed to have a valid EPDC. One more complete day in each of 1997 and 1998 would have resulted in a valid EPDC. If the calculated EPDC of 0.15 ppm was valid, the two exceedances would be excluded as extreme concentrations.

The staff determined that the exceedances at Calexico were likely caused by the transport of emissions from Mexico. The impact of the nitrogen dioxide exceedances was limited to the local area (reflected by the relatively low concentrations observed at the Calexico – East Street site) and the data were not complete enough to support a nonattainment designation. Therefore, each exceedance was identified by the staff as affected by an unusual concentration event.

Because the only exceedances are excluded as unusual concentration events, the staff does not recommend any change to the city of Calexico's attainment designation for State nitrogen dioxide standard.

## **9. Riverside County for Nitrogen Dioxide**

The South Coast Air Basin, including Riverside County, is designated as attainment for the State nitrogen dioxide standard.

In the three-year period of 1997 through 1999, there were two exceedances at

the Banning monitoring site: a 0.255 ppm in 1998 and a 0.307 ppm in 1999. The 1999 EPDC for this site is .18 ppm. (The DV is also 18 ppm.) Because the exceedances are higher than the EPDC, they are excluded as extreme concentrations. After the exclusions, there are no other exceedances at any site in Riverside County.

Because the only exceedances are excluded as extreme concentrations, the staff does not recommend any change to Riverside County's attainment designation for the State nitrogen dioxide standard.

## **10. Inyo County for Hydrogen Sulfide**

The State standard for hydrogen sulfide is a one-hour average concentration of 0.03 ppm, not to be *equaled* or exceeded. Inyo County is located in the Great Basin Valleys Air Basin. Currently, Inyo County is designated as attainment for the State hydrogen sulfide standard.

There are two sites that measure hydrogen sulfide in Inyo County: Cosco Gate and Cosco Junction Highway 395. During the 1997-1999 period, there was one exceedance of 0.03 ppm at the Cosco - Gate monitoring site. The EPDC for this site is 0.01 ppm. Because the exceedance is higher than the EPDC, it is excluded as an extreme concentration. There are no other exceedances at any site in Inyo County.

Because the only exceedance is excluded as an extreme concentration, the staff does not recommend any change to Inyo County's attainment designation for the State hydrogen sulfide standard.

## **11. Los Angeles County for Sulfates**

The State standard for total sulfates is a 24-hour average concentration of 25  $\mu\text{g}/\text{m}^3$ , not to be equaled or exceeded. Currently, Los Angeles County is designated as attainment for the State sulfates standard.

In the three-year period of 1997 through 1999, there was one exceedance at the Pico Rivera monitoring site in 1999. The 1999 EPDC for this site is 18  $\mu\text{g}/\text{m}^3$ . (The DV is 15  $\mu\text{g}/\text{m}^3$ .) Because the exceedance is higher than the EPDC, it is excluded as an extreme concentration. After the exclusion, there are no other exceedances at any site in Los Angeles County.

Because the only exceedance is excluded as an extreme concentration, the staff does not recommend any change to Los Angeles County's attainment designation for sulfates.

## **12. San Diego Air Basin for Sulfates**

Currently, the San Diego Air Basin is designated as attainment for the State standard for sulfates.

In the three-year period of 1997 through 1999, there was one exceedance of  $27 \mu\text{g}/\text{m}^3$  at the San Diego-12th Avenue monitoring site in 1997. After an extensive examination of the cause of this exceedance during the 1998 review of area designations, the staff determined that the exceedance was likely caused by transport of sulfur dioxide emissions from a power plant in the Rosarito area of Mexico. Since this plant was expected to be converted from fuel oil to natural gas in the next several years, exceedances were not expected to recur. The staff also determined that the impact of the sulfate exceedance was limited to the local area and the data were not complete enough to support a nonattainment designation. Therefore, the exceedance was identified by the staff as affected by an unusual concentration event, and was so approved by the Board at the September 1998 hearing.

A staff review of the sulfate data showed that there were no other exceedances of the State sulfates standard during the period of 1997-99. Thus, the staff maintains that the exceedance in 1997 be excluded as affected by an unusual concentration event and not be considered in determining the current area designation. Because there are no violations, the staff does not recommend any change in the attainment designation for the San Diego Air Basin for the State sulfates standard.

## **D. STAFF RECOMMENDATION**

The staff recommends that the Board adopt the proposed amendments to section 60201 of the area designation regulations which incorporates the changes that occur by operation of law. Specifically, the staff proposes that Butte, Glenn, and Mono Counties be redesignated from nonattainment-transitional to nonattainment for the State ozone standard. The full text of the proposed amendments is shown in Attachment D of this staff report.

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## **CHAPTER III**

### **ALTERNATIVES TO THE PROPOSED AMENDMENTS**

The requirement for annually reviewing the area designations is specified in State law (Health and Safety Code, section 39608(c)). The proposed amendments to the area designations are described in Chapter II of this staff report. The proposed area redesignations reflect the application of the designation criteria set forth in California Code of Regulations (CCR), title 17, sections 70300 through 70306. The proposed area redesignations are accompanied by a discussion of their basis and justification. The staff has considered the potential alternatives to the proposed amendments to the area designations, namely, the no action alternative. However, based on the available data, the staff finds the proposed amendments are more appropriate than the no action alternative.

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## CHAPTER IV

### IMPACTS OF THE PROPOSED AMENDMENTS

#### A. PUBLIC HEALTH AND WELFARE IMPACTS

The adoption of the proposed amendments to the area designations is not expected, in and of itself, to result in any adverse impacts on public health and welfare. However, because State law specifies certain requirements based on an area's designation status, there may be indirect impacts.

The proposed amendments would redesignate three areas as nonattainment (from nonattainment-transitional) for the State ozone standard. Redesignating an area as nonattainment may result in the Board and districts implementing control measures that have already been previously adopted. Therefore, adopting the proposed redesignations ultimately may indirectly benefit public health and welfare.

#### B. ECONOMIC IMPACTS

The proposed amendments to the area designations do not contain requirements for action. The area designations are labels that describe the healthfulness of the air quality in each area. Because these regulations by themselves contain no requirements for action, they have no direct economic impact, and the following general determinations are appropriate:

The Executive Officer has determined that adoption of the proposed amendments will not create costs or savings, as defined in Government Code section 11346.5(a)(6), to any State agency or in federal funding to the State, costs or mandate to any local agency or school district whether or not reimbursable by the State pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code, or other nondiscretionary savings to local agencies.

The Executive Officer also has determined, in accordance with Government Code section 11346.5(a)(8), that adoption of the proposed amendments will not have a significant adverse economic impact on businesses, including the ability of California businesses to compete with businesses in other States. The Executive Officer has determined that there will be no, or an insignificant, potential cost impact, as defined in Government Code section 11346.5(a)(9), on private persons or businesses directly affected as a result of adopting the proposed amendment.

In accordance with Government Code section 11346.3, the Executive Officer has determined that adoption of the proposed amendments will not affect the creation or elimination of jobs within the State of California, the creation of new businesses or the elimination of existing businesses within California, or the expansion of businesses currently doing business within California.

In accordance with Government Code section 11346.5(a)(11), the Executive Officer has determined that adoption of the proposed amendments will not have a significant effect on housing costs.

Finally, the Executive Officer has also determined, under Government Code section 11346.5(a)(3)(B), that the proposed regulatory action will not affect small business, because by themselves, the amendments contain no requirements for action and, therefore, have no direct economic impact.

Before taking final action on the proposed amendments to the regulations, the Board must determine that no alternative considered by the agency would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.



## CHAPTER V

### DOCUMENTS RELIED UPON

The following is a list of the documents the staff used in developing the proposed amendments documented in this staff report:

1. Guideline on the Identification and Use of Air Quality Data Affected by Exceptional Events, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, N.C., # EPA-450/4-86-007 (July 1986).

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