

FINAL STATEMENT OF REASONS
FOR CHANGES TO THE AIR BASIN BOUNDARIES
AND RELATED AGRICULTURAL BURNING REGULATIONS

Report Organization

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State of California
Environmental Protection Agency
AIR RESOURCES BOARD

Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Responses

PUBLIC HEARING TO CONSIDER AMENDMENTS TO DIVIDE
THE SOUTHEAST DESERT AIR BASIN INTO TWO AIR BASINS AND
TO MODIFY THE BOUNDARY OF THE SOUTH COAST AIR BASIN AND
AMENDMENTS TO THE RELATED AGRICULTURAL BURNING REGULATIONS

Public Hearing Date : May 30, 1996
Agenda Item No. : 96-4-2

I. GENERAL

The Staff Report: Initial Statement of Reasons for Rulemaking ("Staff Report"), entitled "PROPOSED AMENDMENTS TO DIVIDE THE SOUTHEAST DESERT AIR BASIN AND TO MODIFY THE BOUNDARY OF THE SOUTH COAST AIR BASIN AND PROPOSED AMENDMENTS TO THE RELATED AGRICULTURAL BURNING REGULATIONS," released on April 12, 1996, is incorporated by reference, herein. Copies of the Staff Report may be obtained from the Board's Public Information Office, 2020 L Street, Sacramento, California 95814, (916) 322-2990.

Following a public hearing on May 30, 1996, the Air Resources Board (the Board), by Resolution 96-20, approved amendments and additions to the air basin boundary regulations and related agricultural burning regulations. The Board amended Sections 60104, 60109, and 80280, and added new Sections 60114 and 80311 to Title 17 of the California Code of Regulations (CCR). The amendments and additions to the regulations that were adopted by the Board are identical to those initially proposed by the staff and made available in the Staff Report.

The determinations of the Board concerning the costs or savings necessarily incurred in reasonable compliance with the adopted amendments are presented below. The adopted amendments to divide the Southeast Desert Air Basin (SEDAB) and to modify the boundary of the South Coast Air Basin (SoCAB) by themselves do not contain requirements for action. Subsequent requirements for action may result after additional steps, such as plan preparation and approval, are taken. The change in air basin boundaries would help better define areas with similar geographical, meteorological, and air quality characteristics. Therefore, there are no adverse impacts on public health and welfare, and there are no costs associated with such impacts.

The adopted amendments to the agricultural burning regulations arise from the need to update these regulations to correspond with the air basin boundary changes. Since the changes to the meteorological criteria in these regulations are minimal, there will not be any additional costs incurred by any entity as a result of the amendments to the agricultural burning regulations.

The Board has determined that adoption of the 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 Board has also determined, in accordance with Government Code Section 11346.5(a)(8), that adoption of the 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 Board has also 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 the adopted amendments.

The Board has determined, pursuant to Government Code Section 11346.5(a)(3)(B), that the amendments will not directly affect small businesses. The realignment of air basin boundaries so that the San Geronio Pass area (currently a part of the SEDAB) would become a part of the SoCAB, is expected to have only minimal economic impact on the sources currently in the area. According to the staff of the South Coast Air Quality Management District (AQMD), all sources currently in the San Geronio Pass area are smaller than the level that would require them to comply with the more stringent emission regulations for sources in the SoCAB with respect to the Federal Title V permits, New Source Review offset ratios, and Best Available Control Technology adjustment. Upon being a part of the SoCAB, eligible sources in the San Geronio Pass would have the option, but not the obligation, to participate in the South Coast AQMD's market incentive-based emission reduction program called RECLAIM. This may in fact act as an incentive for new businesses to locate in the San Geronio Pass area, because of the flexibility the RECLAIM program provides. If any of the current sources in the San Geronio Pass area should expand, or if new sources seek to locate in the area, there may be a possible economic impact. However, this potential impact currently cannot be quantified by the Board because any additional cost would depend on the level of expansion and the types and amounts of emissions resulting from the expansion or location of a new source.

In accordance with Government Code Section 11346.3(b)(1), the Board has determined that adoption of the 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.

The Board has further determined that no alternative considered by the agency would be more effective in carrying out the purpose of the adopted amendments or would be as effective and less burdensome to affected private persons than the action taken by the Board.

II. SUMMARY OF COMMENTS AND AGENCY RESPONSES

The staff received comments on the proposed amendments at a public consultation meeting held on February 23, 1996, and also written comments before the release of the public hearing notice. These comments and the staff's responses are included in Chapter V of the Staff Report, which is incorporated by reference, herein. These include comments from a number of persons who favored adopting the air basin boundaries as proposed by the staff at the public consultation meeting.

During the 45-day comment period after the release of the Staff Report, the staff received written comments from Mr. Charles Fryxell and Mr. Mike Rothschild, both of the Mojave Desert Air Quality Management District (Mojave Desert AQMD); Ms. Margit Rusche (Rusche), a resident of Chiriaco Summit; and Mr. John Billheimer (Billheimer), a resident of Riverside. At the May 1996 hearing, the Board heard oral comments from Mr. Rothschild (Mojave Desert AQMD); Mr. Douglas Mac Iver (Mac Iver) of Doug Mac Iver Consulting; and Mr. Ron Wilcox (Wilcox), a resident of Big Bear Lake. Mr. Wilcox also presented written comments. The comments provided by the above persons are divided into three categories: (A) comments related to the new air basin boundaries other than in the Big Bear Lake area, (B) comments related to the Big Bear Lake Area, and (C) comments related to federal air quality planning. A summary of each of the comments and the agency's response is given, below.

A. Comments Related to the New Air Basin Boundaries Other Than in the Big Bear Lake Area

1. Comment: Commenter supports the staff's expeditious implementation of the Olberg Bill of 1995 and concurs with most of the proposed modifications. Commenter is encouraged by ARB's current activity in realignment and redesignation of the Southeast Desert Air Basin boundary. (Mojave Desert AQMD (Rothschild, Fryxell); Billheimer)

Agency Response: These comments agree with the staff's basic approach in implementing the mandate of Assembly Bill 421 (the Olberg Bill) and the technical basis used by the staff in proposing the boundaries for the new air basins.

2. Comment: Monitored ozone readings within the Mojave Desert AQMD are overwhelmingly impacted by transported ozone from the South Coast Air Basin. As demonstrated by the Urban Airshed model prepared by South Coast AQMD, Mojave Desert's attainment of state ozone standards is dependent on the South Coast AQMD's control efforts to significantly reduce air pollutant transport from the South Coast Air Basin. (Mojave Desert AQMD (Fryxell))

Agency Response: The determination of air basin boundaries is based primarily on meteorological and geographical conditions, in accordance with Health and Safety Code section 39606, while long-range transport is considered during the planning of air quality attainment strategies. Therefore, the long-range transport of pollutants is not a factor in determination of air basin boundaries. However, since the San Gorgonio Pass area has generally higher ozone concentrations than other areas of the Desert, relocation of the San Gorgonio Pass area to the SoCAB should result in lower maximum ozone readings for the Mojave Desert.

3. Comment: The community of Chiriaco Summit is located on the eastern side of the Hydrologic Unit boundary line in Riverside County and prevailing winds are from the West, so that generation of dust and particles would affect the Chuckwalla rather than the Colorado River Basin. Therefore, this area should be placed in the new Mojave Desert Air Basin instead of in the new Salton Sea Air Basin. (Rusche)

Agency Response: The staff has carefully reviewed the Hydrologic Unit Map of the State of California (Southern Half), 1978, as published by the Department of the Interior, U. S. Geological Survey, Reston, Virginia (Reprinted 1987), and ascertained that the community of Chiriaco Summit is located on the western side of the Hydrologic Unit boundary line. The location of Chiriaco Summit relative to the Hydrologic Unit line, as shown in Figure 18 on page 35 of the Staff Report, is indeed correct. Furthermore, the Chuckwalla Mountains separate Chiriaco Summit from the Chuckwalla Valley, which is located on the eastern side of the mountain range. Thus, the westerly winds would in fact cause the air quality of Chiriaco Summit to be more closely related to that of the Coachella Valley to the west than the Chuckwalla Valley to the east. Therefore, Chiriaco Summit is appropriately located in the Salton Sea Air Basin as proposed by the staff and adopted by the Board.

B. Comments Related to the Big Bear Lake Area

1. Comment: Mojave Desert AQMD requests that ARB delay the public hearing in order to study the basis for the request by Big Bear Lake for its inclusion in the Mojave Desert Air Basin. (Mojave Desert AQMD (Fryxell, Rothschild))

Agency Response: The staff believes that it had sufficient time to consider this request and the supporting documentation. The staff conducted a careful review of the available information, and determined that a delay of the public hearing would not change the staff's recommendation to the Board that the Big Bear Lake area remain in the SoCAB. The staff did not find any other reason to delay the implementation of Assembly Bill 421 (AB 421), which mandates that the Board adopt the regulations by January 1, 1997.

2. Comment: The specifics of the Big Bear issue must not compromise the prime objectives of AB 421. (Billheimer)

Agency Response: Staff agrees with this comment.

3. Comment: Big Bear Lake is similar to other high desert communities in elevation, population, lack of severe inversion layers, and geographical location downwind from the South Coast Air Basin (SoCAB) and so should be grouped with the high desert communities within the new Mojave Desert Air Basin (MDAB). (Mojave Desert AQMD (Fryxell))

Agency Response: While there may be some similarities between the Big Bear Lake area and the new MDAB, the staff believes that other factors are at least as relevant and support the staff's recommendation. First, based on available information, the Big Bear Lake area is more of a receptor area of emissions sources in the SoCAB than of sources in the Mojave Desert. Because air basins are intended to represent areas of related air quality, it is appropriate to associate the Big Bear Lake area with the SoCAB, which contributes the most to its air quality.

In addition, the Big Bear Lake area is more similar to areas in the SoCAB than to the MDAB. Its geography is similar to mountainous areas such as Crestline and Lake Arrowhead in the SoCAB. Also, the area's average annual precipitation is much higher than that in the Desert and is more similar to the precipitation in the SoCAB. Therefore, it is appropriate that the Big Bear Lake area remain in the SoCAB.

4. Comment: The Big Bear Lake area, currently located in the South Coast Air Basin (SoCAB), should be made a part of the new Mojave Desert Air Basin (MDAB) by moving the currently proposed boundary six miles south. The area is a sparsely populated recreational area, is at a high elevation (6,745 feet), does not have heavy industry, and does not have a severe inversion layer. It has little in common with the SoCAB. The area is more similar to the new MDAB in terms of terrain and population density. The current rectangular boundary lines between the SoCAB and the Southeast Desert Air Basin (SEDAB) are artificial lines of convenience which are improper and unfair to the Big Bear Lake area. (Mac Iver)

Agency Response: This comment is very similar to Comment 3, directly above. Please see the Agency Response to that comment.

5. Comment: The hydrologic unit boundary is inappropriate to use to determine the air basin boundary around Big Bear Lake because water flows both east and west from this area. Also, Health and Safety Code section 39606 requires ARB to base boundaries on similar meteorological and geographic conditions, and consideration for political boundaries wherever practicable, and does not mention hydrologic boundaries. There are several special districts in the Big Bear area with boundaries that could be used, and township/range lines are easy to define geographically and legally. (Mac Iver)

Agency Response: The staff did not recommend changing the existing air basin boundary in the Big Bear area, so it is not

necessary to determine another boundary line in this area. Nevertheless, hydrologic unit boundaries are appropriate to consider in establishing air basin boundaries and would be considered if a change in the air basin boundary in the Big Bear area were recommended. This is because the concept of a hydrologic unit, that water within it flows into a common drainage system, is similar to the concept of an air basin. Air masses in an air basin are considered as uniform in characteristics due to mixing within the basin. Hydrologic unit boundary lines serve well as air basin boundary lines since the mountain ridges upon which they are defined would also delineate the probable barriers that separate air masses of one region from those of another region. Also, hydrologic boundaries are appropriate to use because "geographical" refers to topographical facts and features and would include hydrologic features. In the case of dividing the Riverside County portion of the Southeast Desert Air Basin, the hydrologic unit boundary is more appropriate to use than special district boundaries or township/range lines.

6. Comment: If Big Bear stays in the South Coast, Big Bear would need to request more exemptions from regulations because it is in a different situation from other areas in the South Coast Air Basin. Also, there would be advantages to businesses to be in the Mojave Desert AQMD, and it is easier to travel from Big Bear to the Mojave Desert AQMD offices than to travel to South Coast AQMD offices. (Mac Iver)

Agency Response: As the commenter noted, exemptions from regulations have already been granted to some sources in the Big Bear area based on their different situation. Also, the Health and Safety Code requires the ARB to base air basin boundaries upon meteorological and geographic conditions, and political boundary lines whenever practicable, rather than factors such as advantages to businesses or the distance or ease of travel. The staff believes that the proper factors for determining air basin boundaries have been used in this case.

7. Comment: Precipitation in Big Bear is very similar to that of the adjoining parts of the Mojave Desert Air Basin, and Big Bear is geographically very similar to areas in the Mojave Desert Air Basin. (Mac Iver)

Agency Response: Because of the higher elevation, the Big Bear area's annual precipitation is much higher than that in the Mojave Desert. In comparison, the coastal South Coast Air Basin's precipitation, which is higher than that of the Desert, is actually closer to the Big Bear area's precipitation than the Mojave Desert's. In terms of geography, as mentioned in response to comment B.4 above, there are more areas in the SoCAB that are similar to Big Bear than in the Mojave Desert.

8. Comment: The proposed basin boundary is located far down slope, and is not a 'ridge line' concept as proxy for the imaginary meteorological boundary. A more southerly boundary would be more appropriate. (Billheimer)

Agency Response: The air basin boundary line around the Big Bear Lake area is an existing boundary line, not a new boundary line being "proposed" by the staff. In order for the staff to propose a change in the existing boundary line, there should be compelling evidence that such a change is warranted. In this case, the staff does not believe that there is such compelling evidence.

9. Comment: Commenter is concerned that he may not have enough time to finish reviewing transport/modeling report. (Billheimer)

Agency Response: This comment is not specifically directed at the proposed regulatory action. However, the staff notes that transport is not a factor in establishing air basin boundaries under Health and Safety Code section 39606.

10. Comment: Hydrolytic boundaries (drainage flows) are a useful tool in defining air basins and effective in a macro sense. (Billheimer)

Agency Response: Staff agrees with this comment.

11. Comment: Strict adherence to the principle of using hydrologic boundaries to define air basin boundaries would split the Big Bear micro-basin and would place Lake Arrowhead and Baldwin Lake in the Mojave Desert Air Basin and Big Bear Lake in the South Coast Air Basin. This would be a ridiculous conclusion, denying all knowledge of air flows in mountain ridge areas. (Billheimer; Mac Iver)

Agency Response: The staff has studied the Hydrologic Unit boundary lines of the area and determined that the Big Bear Lake area is completely within the same watershed as the San Bernardino and Riverside metropolitan areas of the South Coast Air Basin. The geographical features that guide the drainage of water would also channel the interchange of air masses between the Big Bear Lake area and the remainder of the SoCAB.

While it is not clear if emissions from the Big Bear Lake area contribute to the air quality of either the SoCAB or the MDAB, studies show that the area's air quality is more related to the SoCAB, as mentioned in response to comments B.4 and B.7 above. On balance, the staff does not find a compelling case for changing the current boundary around the Big Bear Lake area, and therefore, the area should remain in the SoCAB.

12. Comment: Although hydrologic principles would be clues in setting air basin boundaries, meteorological patterns should be decisive. Hydrologic patterns are the same all year but may be meaningless, while meteorological boundaries shift and change. Therefore, both hydrologic and meteorological patterns are unsuitable. (Billheimer)

Agency Response: Health and Safety Code section 39606 requires the ARB to consider both geographical and meteorological

factors in establishing air basin boundaries. While short-term weather patterns may be variable, the staff uses climatological data which reflect the long-term climatic patterns of the areas under consideration. The staff believes that the appropriate factors have been used in maintaining the existing boundaries around Big Bear and in the staff's proposal of new boundaries to divide the Southeast Desert Air Basin.

13. Comment: Transport from the Coastal Basin affects the Mountain Communities of Arrowhead and Big Bear, as well as all the fringe sites of the Southeast Desert Air Basin. Big Bear has low emissions. Air basin assignment should consider a site's contribution to air quality attainment, and thus Big Bear, and perhaps Crestline and Arrowhead, belong in the Desert air basin. (Billheimer, Mac Iver)

Agency Response: As mentioned in response to other comments, determination of air basin boundaries is based on similar meteorological and geographical conditions, rather than transport between areas. Please see responses to comments A.2 and B.9.

14. Comment: The Board should deny the request by the Big Bear Lake Chamber of Commerce to remove the area from the jurisdiction of the South Coast Air Quality Management District (AQMD) and put it under the jurisdiction of the Mojave Desert AQMD. Big Bear Lake should remain in the South Coast AQMD because that district has more experience and personnel to regulate sources such as an incinerator which is being considered by Big Bear politicians. (Wilcox)

Agency Response: This comment supports the staff's proposal, which maintains the Big Bear Lake area in the SoCAB. Thus the area will continue to be under the jurisdiction of the South Coast AQMD. Also, please see response to comment B.11 above.

15. Comment: Other commenters' statements that Big Bear Lake has more in common with the high desert than it does with the South Coast Air Basin are wrong. Big Bear Lake is at 6747 feet elevation, and it has 16,000 full-time residents and 5 million visitors a year. A ridge line separates Big Bear Lake and Baldwin Lake from the Mojave Desert. Vegetation is similar to the that in the South Coast area. Mountain air from Big Bear flows down Bear Creek Canyon, just like the water does. (Wilcox)

Agency Response: These comments support the staff's recommendation not to change the current air basin boundary around the Big Bear Lake area, thereby maintaining the area as part of the SoCAB.

16. Comment: There are disparities in the information about the number of members of the Big Bear Lake Chamber of Commerce. (Wilcox)

Agency Response: This comment is not specifically directed at the proposed regulatory action. However, the ARB notes that establishment of air basin boundaries is based on the factors specified in Health and Safety Code section 39606, and the number of members of the Chamber of Commerce does not affect these factors.

C. Comments Related to Federal Air Quality Planning

1. Comment: Mojave Desert AQMD requests the public hearing be continued pending resolution of the issue regarding implementation of the legislative intent of Assembly Bill 421 (AB 421) as to remediation of a problem created by operation of federal law. (Mojave Desert AQMD (Fryxell, Rothschild))

Agency Response: The staff believes that it had sufficient time to consider this request and the supporting documentation. The staff determined that a delay of the public hearing would not provide any additional resources toward resolving the issue regarding the implementation of the legislative intent of AB 421. In response to the Mojave Desert AQMD's concerns, the Board adopted a Resolution proposed by the staff to address this issue. The staff did not find any other reason to delay the implementation of AB 421, which mandates that the Board adopt the regulations by January 1, 1997.

2. Comment: ARB's removal of the San Gorgonio Pass from the Mojave Desert Air Basin's boundaries represent a positive step toward rectifying the inappropriate use of Banning readings to classify the Mojave Desert AQMD. (Mojave Desert AQMD (Fryxell))

Agency Response: This comment supports the Board's action to place the San Gorgonio Pass area in the SoCAB.

3. Comment: The staff proposal does not adequately implement the legislative intent of AB 421 regarding remediation of a problem created by operation of federal law: under federal law, the Mojave Desert area is classified as "Severe-17" for nonattainment of the national ozone standard based on ozone concentrations in the Banning area and other lower desert sites. The federal government uses air quality data from within an air basin to classify nonattainment areas and does not take into account the long-range transport of air pollutants from the SoCAB into the Mojave Desert. The Mojave Desert AQMD sponsored AB 421 to remedy this problem. However, while the staff's proposed amendments represent a positive step, they do not include any text to set in motion a process to reclassify the Mojave Desert Air Basin based on ozone readings from within the region and to take into account the effects of transport from the SoCAB. This process is necessary to address the unfairness created by the current classification. (Mojave Desert AQMD (Fryxell))

Agency Response: The staff understands the Mojave Desert AQMD's concern about the federal regulatory burden on the District and supports the District's efforts in seeking a more appropriate federal classification that acknowledges intra-state transport. However, federal nonattainment areas and classifications are promulgated in federal law. Any changes must be made at the federal level and are beyond the Board's direct jurisdiction.

To address the District's concern, the Board took these two actions at its May 1996 hearing:

- (1) The Board approved the staff's proposal to change the air basin boundaries, accomplishing an initial step which is within the legal authority of the Board; and
- (2) The Board adopted a Resolution stating that the Board will request the U.S. Environmental Protection Agency (EPA):
 - (a) To make conforming changes in the nonattainment area boundaries for the federal Southeast Desert Modified Air Quality Maintenance Area (AQMA) that reflect the Board's action;
 - (b) To support a change in federal law to consider intra-state transport in establishing area classifications; and
 - (c) To review, and modify as appropriate, the planning requirements for the Southeast Desert Modified AQMA.

The Board believes that the above actions will help alleviate the Mojave Desert AQMD's concerns and fulfill the legislative intent of Assembly Bill 421.

Since the May 1996 Board hearing, the Board's chairman has been appointed to the Federal Clean Air Act Advisory Council, which consists of several working groups. One working group will address implementation issues related to the proposed National Ambient Air Quality Standards for ozone, including the U.S. EPA's policy on inter-state and intra-state transport.

4. Comment: The purpose of AB 421 is to achieve regulatory equity for the Mojave Desert area by setting into motion a redesignation process that takes into account the overwhelming impact of transported air pollution. This also requires recognition that the creation of the Mojave Desert Air Basin corrects an error. The emission inventory of the high desert should be emphasized rather than transport. Therefore, ARB should recommend to U.S. EPA resolution of the current unfair classification and designation of the Mojave Desert area. (Mojave Desert AQMD (Rothschild))

Agency Response: This comment is similar to Comment #3, directly above. Please see the Agency Response to that comment.