

## **SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT**

For Agenda of January 24, 2008

**To:** Board of Directors  
Sacramento Metropolitan Air Quality Management District

**From:** Larry Greene, Air Pollution Control Officer  
Sacramento Metropolitan Air Quality Management District

**Subject:** Approval of request to reclassify the Sacramento Federal Ozone Nonattainment area as severe for the national 8-hour ozone ambient air quality standards

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### **Recommendation**

Staff recommends that the Board adopt the attached resolution authorizing the Air Pollution Control Officer to send a letter to the California Air Resources Board's Executive Officer requesting a voluntary reclassification (bump-up) of the Sacramento nonattainment area from a "serious" to a "severe" federal 8-hour ozone classification.

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### **Executive summary and conclusions**

In June 1995, The Sacramento region was classified as a severe nonattainment area under the 1-hour federal ozone standard. Effective June 15, 2004, the region was designated as a "serious" nonattainment area for the new federal 8-hour ozone standard. The Clean Air Act and EPA rules required districts in the Sacramento nonattainment area to submit a Reasonable Further Progress Plan (RFP), demonstrating that we are reducing emissions by 3% per year, and an ozone plan by demonstrating that the region will meet 8-hour clean air standards by a June 15, 2013 deadline. Both plans were due June 15, 2007.

The region did not meet that deadline for three reasons. First, the plan must include the final state emission control measures and the state did not complete and approve those measures until October 2007. Second, the plan must include air quality modeling results from analyses prepared by Air Resources Board staff and these staff experts were not available until after the South Coast and San Joaquin air quality plans were completed in the fall of 2007. Finally, the regional air districts and SACOG agreed, with the concurrence of the state and federal planners, to include the latest vehicle activity data from the SACOG MTP plan, and that information was not available until late December 2007.

In addition to missing the submittal deadline, staff analyses have established that the region will not be able to attain the federal standard by June 15, 2013, because, as discussed below, our attainment is dependant on implementation of state and federal vehicular control measures that will not go into effect until after 2012.

We anticipated submitting the RFP and attainment demonstration plans (SIP) in August 2008 and requesting a bump-up to the severe classification. The reclassification will give the region more time to attain, but must meet the federal standard not later than June 15, 2019.

When plan submittal deadlines are not met, the federal Clean Air Act authorizes EPA to issue a finding of a failure to submit the ozone plan. This finding triggers sanctions if required actions are not taken by districts and EPA in specified times. The most serious sanction involves EPA assuming local powers and establishing a federal air quality plan for the region.

Until recently, we understood that EPA did not plan to issue the findings prior to our scheduled plan adoption. On January 11, 2008, staff learned that EPA intends to make these findings on February 15, 2008. We understand this urgent action was triggered by a settlement of a legal action in another part of the country. The region may avoid receiving a finding letter if we submit the anticipated bump-up request by February 14, 2008 and submit an RFP by April 30, 2008

At this late date, just months before the SIP is completed, a failure to submit letter would unfairly cast a negative light on the region, when in fact a majority of the work is done and an early Reasonable Further Progress SIP was submitted in 2006 as a bridging action.

As indicated above, all the developed data and preliminary computations indicate that the region will not be able to attain by the 2013 deadline and that a request to reclassify the region to extend the deadline is unavoidable. Although the attainment deadline is extended to potentially 2019, analysis shows that many parts of the region will attain earlier. The District will certainly maintain its long track record of aggressive pursuit of all methods of reducing the pollution load on the communities in the region.

A reclassification to "severe" would not impose any additional restrictions on the region, since the severe area requirements have been in place since the mid-1990's as a result of the 1-hour ozone "severe" area requirements. Therefore, staff recommends the Board approve the request for reclassification to severe for the 8-hour ozone standards.

## Background and requirements

In July 1997, EPA promulgated a national ambient air quality standard for 8-hour ozone. EPA classified the Sacramento region as a “serious” nonattainment area, effective June 15, 2004, based on ozone monitoring data. The Sacramento region includes all of Sacramento and Yolo counties and parts of El Dorado, Placer, Solano, and Sutter counties. There are five air districts with jurisdiction in the nonattainment area.

The Clean Air Act and EPA rules require an ozone plan to be submitted by June 15, 2007. The plan must meet two requirements

1. Reasonable further progress<sup>1</sup> - Demonstrate that the region will meet a minimum emissions reduction level of three percent per year by 2008 and 2011.
2. Attainment demonstration<sup>2</sup> - Demonstrate that the region will meet the federal 8-hour ozone air quality standards by June 15, 2013.

The Clean Air Act (CAA) permits<sup>3</sup> a state to request that EPA reclassify a nonattainment area to a higher classification with a later attainment date. This process is appropriate for areas that must rely on longer term strategies to achieve the emission reductions needed for attainment.

After the deadline for submission, EPA is authorized to send “Letters of Failure to Submit” to regions that did not meet the target. Once a letter is sent it triggers sanctions<sup>4</sup> including:

1. More stringent emission mitigation requirements for new and modified businesses, "major stationary sources" if a complete plan is not submitted within 18 months after EPA findings of failure to submit the plan.
2. Prohibiting transportation projects from receiving federal transportation funding if a complete plan is not submitted within 24 months after EPA findings.

EPA must assume local powers and promulgate a federal plan two years after making the findings if they have not approved the local plan<sup>5</sup>.

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<sup>1</sup> Clean Air Act Sections 172(c)(2), 182(b)(1) and (c)(2)(b), 42 USC 7502(c)(2), 7511a(b)(1), and 7511a(c)(2)(b)

<sup>2</sup> Clean Air Act Section 182(d), 42 USC 7511a(d)

<sup>3</sup> Clean Air Act Section 181(b)(3), 42 USC 7511(b)(3)

<sup>4</sup> Section 179 of the Clean Air Act, 42 USC 7509

<sup>5</sup> Section 110(c) of the Clean Air Act, 42 USC 7410(c).

## **Status report and next steps**

1. RFP: In 2006, the region voluntarily submitted to EPA the required reasonable further progress demonstration for 2008. The region may avoid the finding for failure to submit the reasonable further progress demonstration for 2011 if we commit to submit the demonstration to EPA by the end of April. This demonstration must include emission inventory forecasts demonstrating that the Sacramento nonattainment area will meet the emission reduction requirement of three percent per year for 2011. Staff intends to prepare that demonstration for Board approval in March or April 2008, however, submission is dependent upon our receiving certain data from ARB and on our ability to accommodate an anticipated increase in the motor vehicle emission budget.

2. Attainment Demonstration: Beginning in 2006, there have been at least nine discussions with your Board and/or community groups about our prospects for meeting the 2013 deadline, including four public workshops throughout the nonattainment area. At those meetings, staff indicated that it was extremely unlikely that the serious area attainment deadline could be met. Most recently, during our update to the Board in October 2007 we informed the Board about the potential sanctions and indicated that there was no option but to request reclassification to severe. Our intention was to concurrently act on the reclassification request when we brought our plan to the Board for approval later this year. We also informed the Board that the completion of the ozone plan was delayed due to our continuing efforts to align the ozone plan with the Sacramento Area Council of Government's Metropolitan Transportation Plan (MTP2035), Blueprint, and the California Air Resources Board's (ARB) motor vehicle emissions reductions strategies and updated modeling. At that time, we understood that EPA did not have immediate plans to make findings of failure to submit.

On January 11, 2008 staff learned that, on February 15, 2008, EPA intends to make the findings of a failure to submit for all areas that did not meet the June 15, 2007 deadline. We may be able to avoid the finding for the attainment demonstration if we submit the anticipated reclassification request to EPA by February 14, 2008, and submit the 2011 RFP by April 30, 2008. If authorized by the Board, the District will submit the reclassification request to ARB to approve and forward to EPA. If the reclassification request is not submitted, the Sacramento region would be the only area in California that would receive a finding of failure to submit, along with other areas in the country that will have findings made: Chicago, Boston, St. Louis, Cleveland, Milwaukee, and New York.

District staff has coordinated with the other APCOs in the region, who will request that their boards approve a reclassification request at their next regular meetings, scheduled for February 4<sup>th</sup> through February 14<sup>th</sup>.

## **Reclassification justification**

ARB has provided preliminary emissions inventory and air quality modeling results to the District. Based on these data, the combined local, state, and federal emission control strategies were evaluated to determine when the region would reach attainment

Attainment of the 8-hour ozone NAAQS was evaluated for the “serious” and “severe” classifications, based on modeling results for the peak ozone site in the region at Cool in El Dorado County. The modeled VOC and NOx emission forecasts incorporate growth assumptions and the estimated reductions associated with the existing control strategy. The photochemical modeling results were used to estimate the percent reductions needed to achieve the federal 8-hour ozone standard by the serious and severe area deadlines. The percent reductions needed for attainment are used to calculate the additional VOC and NOx emission reductions (in tons per day) needed for attainment. Estimated reductions associated with the existing rules and other control strategies and preliminary proposed new state/federal control measures and anticipated local control measures are included to evaluate whether the emission reductions are sufficient to meet the VOC and NOx attainment targets.

The preliminary attainment demonstration assessment for the Sacramento nonattainment area is summarized in Table 1.

**Table 1  
 Summary of Preliminary Attainment Evaluation for 8-Hour Ozone NAAQS**

Sacramento Nonattainment Area (Emissions in tons per day)	2012 "Serious" Scenario		2018 "Severe" Scenario	
	VOC	NOx	VOC	NOx
A) Emission Inventory Forecasts (includes emission reduction credits)	128	139	121	103
B) Additional Percent Reductions Needed for Attainment (estimated from modeling results at peak ozone Cool monitoring site)	30%	30%	0%	3.3%
C) Additional Emission Reductions Estimated to Meet Attainment Targets (Line A x Line B)	38.4	41.7	0	3.4
D) Emission Reductions from Locally Proposed New Controls	2.3	2.1	3.2	3.0
E) Additional Reductions Needed (Line C – Line D)	36.1	39.6	-3.2	0.4

As noted, the above data are preliminary and major pieces of the attainment demonstration plan are unfinished. These pieces include final motor vehicle emissions forecasts through 2018 using updated SACOG motor vehicle activity data, the associated air quality modeling, and final local control measure evaluations. In addition, the plan must include refined estimates from modeling and planned reductions that show attainment at Cool.

ARB recently provided updated data to be used for the final motor vehicle inventory using the updated SACOG motor vehicle activity. The updated motor vehicle emissions are higher than the estimates used in the preliminary analyses. Therefore, the attainment targets from forthcoming air quality modeling using these data are expected to be even more difficult to meet.

The anticipated reductions are substantially less than the amount needed for attainment by the serious area attainment deadline and the area will need to rely on emission reductions expected to occur after 2012 to reach attainment. Therefore, the area will not be able to demonstrate attainment until 2019, the deadline for severe nonattainment areas.

The 2013 shortfall is significant because there are simply no measures available to achieve the required reductions. For example, even the following draconian and unrealistic strategies, which districts lack the authority to implement, would not be sufficient to demonstrate attainment: 1) closing all businesses that emit air contaminants, 2) prohibiting the use of all passenger vehicles, and 3) prohibiting the use of all heavy duty trucks. Only prohibiting the use of *all* motor vehicles could result in attainment by the serious classification deadline. If even these draconian strategies will not lead to attainment, feasible state and local strategies certainly would not attain by the serious area deadlines. Figure 1 includes this illustration.

**Figure 1**  
**How difficult is attainment with serious deadlines?**  
**Effects of draconian strategies**

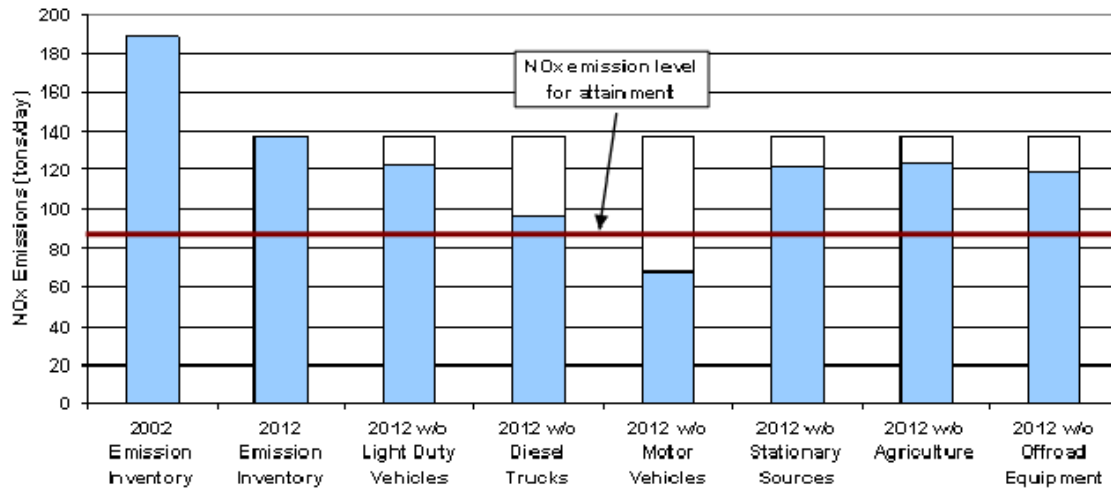
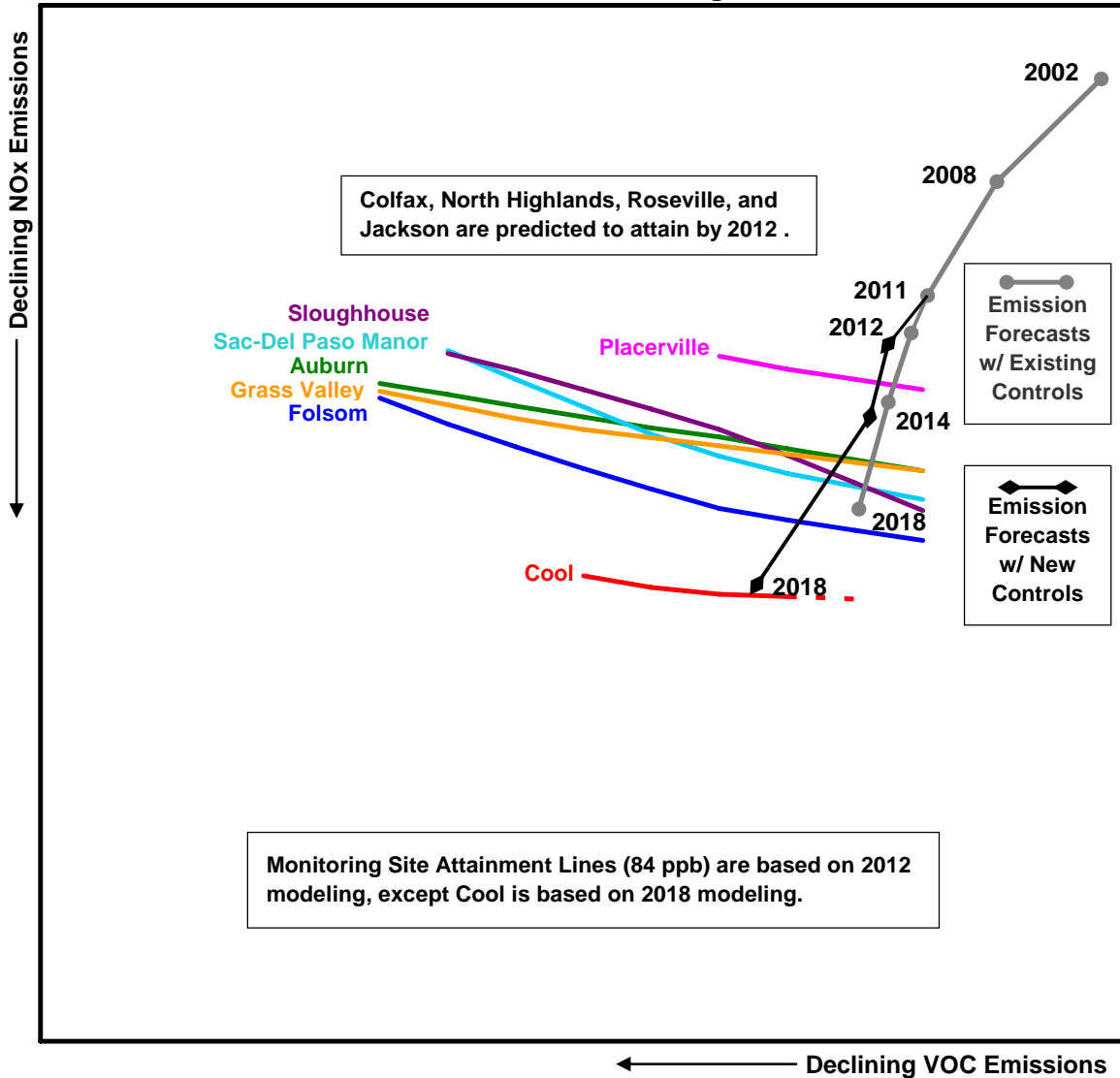


Figure 2 illustrates when individual peak ozone monitoring sites are forecasted to attain. The horizontal lines represent emissions needed to attain at each monitoring site. The vertical lines show preliminary emissions projections through 2018. Where these lines cross, attainment can be expected.

The analysis demonstrated that of all the monitoring stations that currently violate the federal 8-hour ozone standards, attainment is only expected in Colfax, North Highlands, and Roseville by the serious area attainment deadline. Areas that are not able to attain include Sacramento, Sloughouse, Folsom, Placerville, Cool, and Auburn. However, all stations, except Cool, are expected to attain by the severe area deadline in 2018.

**Figure 2**  
**Summary of Attainment Demonstration for Peak Ozone Sites**  
**in the Sacramento Region**



Given the preliminary attainment emissions targets, the magnitude of the shortfall in emission reductions, and the schedule for implementing new control measures, the air districts in the Sacramento nonattainment area have no choice but to ask the California Air Resources Board to request a voluntary reclassification of the Sacramento federal nonattainment area from a “serious” to a “severe” 8-hour ozone nonattainment area.

## Summary

The Sacramento region is currently classified by EPA as a “serious” nonattainment area for the federal 8-hour ozone standard with an attainment deadline of June 15, 2013. Required federal reasonable further progress and attainment demonstration plans were due to EPA by June 15, 2007. Due to our continuing efforts to align the ozone plan with the Sacramento Area Council of Government’s Metropolitan Transportation Plan (MTP2035), Blueprint, and delays in receiving the California Air Resources Board’s (ARB) motor vehicle emissions reductions strategies and updated modeling, we did not meet the 2007 submittal deadline. Sanctions may be avoided by requesting that EPA reclassify the region to severe and by submitting a progress demonstration by April 30, 2008. All available information indicates that the region cannot meet the serious area attainment deadline and has no choice but to request reclassification to severe. The region already meets severe area requirements from our existing 1-hour ozone classification. Therefore, staff recommends the Board authorize it to send a letter requesting a voluntary reclassification of the Sacramento nonattainment area from a “serious” to a “severe” federal 8-hour ozone classification. The region anticipates submitting a reasonable further progress plan before April 30, 2008, although, as discussed above, submission of the plan is dependent upon our receipt of information from other agencies. We anticipate submitting a severe area attainment demonstration plan later this year.

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Respectfully submitted,

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Reviewed by:

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