

**Sacramento Regional
8-Hour Ozone Attainment And
Reasonable Further Progress Plan And
Environmental Impact Report**

Public Comments and Responses on the Draft Plan

January 8, 2009

PUBLIC COMMENTS

Public Workshop Comments (Vacaville, September 22, 2008)

Participants: Jeanne LaPointe
Dave Wagenseil
Janice Stires
Toykea Jone
Aimee Pfohl
Mike Reed

Comment #1: Why does Cool have a high level of ozone? (Plan presentation)

Response: Charles Anderson, Sacramento Metropolitan AQMD
The main reason that Cool is the peak ozone site is due to the effects of the region's meteorology, geography, and air pollutant emission sources. Fresh pollutants of NOx and VOC are produced in upwind urbanized areas. As the day progresses, those pollutants accumulate in the air and react with sunlight under hot summer temperatures, which causes the formation of ozone. In the afternoon, ozone concentrations increase and Delta breezes tend to transport the ozone pollution to the Cool site later in the day. Grass Valley has a similar ozone situation.

Comment #2: I understand the concept of the urban forest control measure, but there might be another aspect where the emphasis on other types of trees (low emitters) may have negative impacts. Has anyone taken a look at this aspect? I am concerned about the removal and planting of different tree species and their effects on the environment regarding types of insects, animals, disease, pollination, shallow or deep root systems that could cause damage, and other things. (Urban Forest control measure)

Response: Gordon Mann, Sacramento Tree Foundation
When we did the study we looked at a diversity of species and identified the trees that are best suited for the local environment as well as for air quality. We have a technical advisory committee to look into these issues, but we are looking at a wide variety of trees, not just two or three types. We will capture the right trees for the right areas and look at additional impacts. The tree lists change by area and the lists are not just emissions related.

Comment #3: Would places be eligible for emissions credits if they complied before the regulation is put into affect? Say if the regulation requires 9 ppm and we go down to 5 ppm. (Local control measures)

Response: Matt Jones, Yolo-Solano AQMD
The YSAQMD's Emission Reduction Credit (ERC) rule is the administrative mechanism that allows us to certify surplus emission reductions. Section 201.2 of the rule states that once emission reductions are proposed as a part of measures to be adopted in a District Air Quality Attainment Plan, they can't be considered surplus. So a source couldn't receive ERC's for replacing or retrofitting equipment to meet a certain limit as proposed in this plan in one of our control measures. However, if for example our proposed boiler rule specifies a NOx limit of 9 ppm and a source replaces or retrofits equipment that will bring their emissions down to 5 ppm, they could receive ERC's for the incremental reduction (4 ppm).

Comment #4: Are there any state or local funding mechanisms to help achieve the retrofitting of boilers to come into compliance? (Local control measures)

Response: Matt Jones, Yolo-Solano AQMD
I don't know. I know locally we don't have any incentive programs at this point. If I hear of any state incentive programs in the course of this plan, I will be happy to let you know.

Comment #5: Are you making contacts with the cities and counties, so they know what's going on and how they will be impacted? (Local control measures)

Response: Matt Jones, Yolo-Solano AQMD
They would be impacted by the plan in the sense that businesses and residences in their respective cities and counties would be impacted as a result of the rule changes we are proposing in the plan. Each air district has a Board of Directors that oversee the operations of the air district. The people that make up the Board are representatives from the respective cities and counties in that air district. For instance, in the Yolo-Solano air district, we have a 14 member Board. We have a representative from each city in our district and also supervisors from Yolo and Solano Counties as well. So in that respect, we've been keeping our Board informed of our proposed plan commitments. The in turn take this information back to their respective cities and counties.

Comment #6: What is the process after you get comments on the plan? Is the plan going to change? (Local control measures)

Response: Matt Jones, Yolo-Solano AQMD
All the commitments that are listed in the plan right now are the result of a detailed analysis we performed to determine which local measures could be feasibly implemented in our district to help get us to attainment of the ozone standard. We don't expect that we would add any regulations that aren't in this draft. If we get public comments that raise flags for one or more of our commitments, it would be helpful if the commenter could suggest an alternate way to achieve the equivalent emission reductions. This is because we have to show in this plan that we will get the reductions we need to achieve the standard by 2018.

Comment #7: How has the transportation industry interacted with the plan about measures affecting locomotives and airports? (Local control measures)

Response: Laura Lawrence, California Air Resource Board
We have discussed the measures during a series of workshops throughout the state with transportation representatives as well as keeping in contact with officials to discuss their needs and requirements.

Matt Jones, Yolo-Solano AQMD
Also, I'd like to point out that as ARB just mentioned they have lots of workshops for their regulations. The local air districts have a workshop process for each rule they want to adopt. So it's not like just by virtue of publishing this plan, that's it. For each individual rule, there will be a workshop and rule adoption process as well.

Public Workshop Comments (Marysville, September 24, 2008)

Participants: Brenna Christiano
Dan Tarailo
Camille Kustin
Nathan Ladd

Vaugh Minnix
Stephen Scheer
Ronald W. Garner
Philip Ireanor

Comment #1: Why would the Air Resources Board rather continue to pollute instead of having sources install equipment that use manure methane in combustion engines to produce electricity? (Regional Measures, regarding dairy emissions)

Response: Tim Taylor, Sacramento Metropolitan AQMD
There are benefits to doing this because it helps reduce some emissions. However, it would substitute these emissions (ROG and other green house gases) for of pollutants, including NOx. NOx emissions are more important to ozone formation in our region than the hydrocarbon emissions (ROG) from uncontrolled methane. It is not desirable to trade ROG for NOx.

Comment #2: I just want to confirm that you can only take credit for up to 0.48 tons per day even though reductions are about 0.84 tons per day? (Urban Forest control measure)

Response: Janice Lam, Sacramento Metropolitan AQMD
Yes, due to the EPA cap on emissions reductions from emerging and voluntary measures, only 6% of the emissions shortfall for attainment can be claimed.

Comment #3: Do these (truck) regulations (referring to the light/medium category under the mobile emission inventory pie chart) include pick up trucks? (State control measures)

Response: Charles Anderson, Sacramento Metropolitan AQMD
Pie chart under light/medium duty category does include pickup trucks. These regulations include pick up trucks running on gas and diesel fuel.

Public Workshop Comments (Sacramento, September 25, 2008)

Participants: Jon Ellison
Christine Cahill
Paul Buttner
Susan Wilson
Chelsea Sand
John Motinger
Marco Lemes
Anne Marie Vineent

Anissa Routon
Brandon Rose
Bree Tayler
Joe Crummett
B. Wood
Dan Tarailo
Camille Kustin

Comment #1: First of all, I want to say this is a really great approach, another component to air quality. I have two questions. First, do you have somewhere available to look at the list of trees in the different categories? (Urban Forest control measure)

Response: Janice Lam, Sacramento Metropolitan AQMD
We have a preliminary list now. If you leave your contact information I can send you the list.

Comment #2: Secondly, with new development, especially with DOT wanting to create more walkable streets and have separated sidewalks, how do the trees in the low emitting category intersect [match up] with shade trees versus other types of trees? So if you want to put in a lot of low emitting trees along the street where you want pedestrians to walk, do some of those trees include shade trees? (Urban Forest control measure)

Response: Gordon Mann, Sacramento Tree Foundation
The way we are developing the lists for the trees is we are evaluating the trees first for their suitability to the urban area. So each region will probably have its own list that is suitable for that urban area. Then we will take that suitability list and rate it for the air quality. So we will try our best to match trees best suited for the area with the best air quality trees and meet the ratio that we are targeting.

Comment #3: Do most of the reductions take into account urban growth and sprawl which is cutting down oak tree forests or oaks in the foothills and replacing it with new types of trees? (Urban Forest control measure)

Response: Gordon Mann, Sacramento Tree Foundation
The current proposal accounts for trees that come down just under normal removal and replacement trees to keep our existing canopy. We are working with agencies to enhance the urban forest with their development as part of the Greenprint which coincides with Blueprint growth areas.

Comment #4: I would encourage more precaution as I see the expansion south of highway 50 covered in oak trees. So I think that is definitely an area that should be further examined, and I don't know if you are taking that into account what I just mentioned. (Urban Forest control measure)

Response: Larry Greene, APCO
This control measure does not direct the removal of native trees in the area due to development. The control measure focuses on replacing trees that naturally die or are removed based on other issues such as safety or natural disasters. The Sacramento Tree Foundation will ensure the right kind of trees that benefit air quality, emit lower BVOC, and that are good for the environment are planted. The Greenprint Initiative, which is lead by the Sacramento Tree Foundation, is a multi-decade regional framework by expanding urban forests and optimizing the benefits of tree canopies. Under Greenprint, trees will be added to newly developed areas and will expand the urban forest and increase the tree canopy cover in the area. The air district understands that cutting down trees is a very difficult and sensitive issue people are concerned about. Our Plan's Environmental Impact Report will address this issue.

Gordon Mann, Sacramento Tree Foundation
For the aspect of the control measure, it's just looking at reducing the BVOC and the removal of trees actually helps that. But it doesn't help the other benefits that we get from trees that we are all concerned about. So from this aspect the removal of trees doesn't affect the control measure, but there are other affects that we would want to deal with.

Environmental Audit, Inc.
The impact of the Urban Forest Control Measure was evaluated in the Notice of Preparation/Initial Study (NOP/IS) under Biological Resources (see EIR, Appendix A, pages 2-10 and 2-11) and summarized in the EIR on page 3-54. The NOP/IS evaluated the potential biological impacts of the Urban Tree Forest Expansion measure. The NOP/IS concluded that the measure would encourage additional tree planting. The trees were expected to be planted in urban areas as part of landscaped vegetation and were not expected to displace any native habitat. It was also expected that guidance to implement this control measure would be developed that would also consider that certain trees are protected species and should be preserved. Since the preparation of the NOP/IS, the Urban Tree Forest control measure has been modified. The measure is now aimed at replacing existing trees that die off with lower VOC generating trees rather than planting additional new lower VOC trees. Therefore, fewer low VOC emission trees are expected to be planted under this control measure but the conclusions of the NOP/IS remain the same, i.e., the biological impacts of this control measure are expected to be less than significant.

Comment #5: Regarding the IC engine NOx control measures, this is just to pull in minor sources and will there be any changes for major sources? (Local Control Measures)

Response: Aleta Kennard, Sacramento Metropolitan AQMD
At this point in time, basically we are not looking at revising those limits [for major sources] at least as far as this control measure. As we go through the workshop process if anything is identified that could be further evaluated, then we will evaluate that in the rule development. But right now its mostly bringing in the minor sources or smaller sources.

Comment #6: It says on the diesel truck flyer that there's a December 2008 board hearing? Do you know when that is exactly? (State Control Measures, proposed state regulations)

Response: Laura Lawrence, California Air Resources Board
Yes, that is right. I think it is December 11-12. The Board dates are on our Web site. If you can leave me your comments, I can get back to you.

Comment #7: How does gardening equipment fit into all of this? Leaf blowers and lawn mowers? (State Control Measures)

Response: Laura Lawrence, California Air Resources Board
Gardening equipment items that are smaller than 25 horsepower would fall under a smaller engine rule. They are governed by an existing CARB small off road engine regulation. No new CARB regulation changes are proposed in this plan. EPA has just recently adopted a new standard. In addition, there are district incentive component for lawn mower. I would be happy to provide you with a contact and more information on it.

Comment #8: You had rules adopted this morning for fuel tanks for marine vessels. Is that a part of the previous SIP and not this SIP? Is that why you're not showing any additional reductions? (State Control Measures)

Response: Laura Lawrence, California Air Resources Board
No, it's a part if this SIP but the reduction for the marine rules is very small for the Sacramento area. Those reductions are bigger in the coastal regions.

Letter from Blain Stumpf, BST Service Inc. (September 4, 2008)

Comment #1: If the Federal Regulations set in 1997 have been since reviewed?
Did California ever contested the standard?

Response: The United States Environmental Protection Agency (USEPA) released the 1997 8-Hour Ozone Standards on September 16, 1997. The 1997 standard has gone through public reviews and comment processes that required by the Federal Clean Air Act (CAA). The 1997 ozone standards were upheld by the U.S. Supreme Court in *Whitman vs. American Trucking Association*.

The Federal CAA Section 109(d)(1) requires that the USEPA review the criteria pollutant standards on a regular time interval. The USEPA Administrator will consider the recommendation from the Clean Air Scientific Advisory Committee (CASAC) and some other factors (technology availability and cost-effectiveness evaluation) to determine the National Ambient Air Quality Standards (NAAQS). The CARB submitted comments during the development of the new NAAQS on June 21, 2006. CARB had concerns regarding the role of CASAC in the reviewing process of the NAAQS. The letter can be found under <http://www.epa.gov/ttn/naaqs/carb.pdf>. In March 2008, the USEPA released a new standard which lowers the ozone standard from 0.08 ppm to 0.075 ppm. The 1997 standard and the implementation rules for that standard will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

Letter from Scotty DuPriest, Otto Construction (September 4, 2008)

Comment #1: My only comment is that at a time when the economy is not doing so well, when budgets are lean, and costs are high, this new industry that is being created by your organization on the backs of the Contractors is not a very well thought out concept. We all know that the main polluter of our waterways is the storm drains that are continuing to receive the run-off from people like you and me and our homes and city streets. New construction only disturbs only 6/10ths of 1% of the entire states exposed soil areas and with the construction downturn will be much less for 2009 and on. You essentially left the lion's share of the contamination source alone and it will increase as long as people continue to water lawns and wash and drive cars. The plan you are proposing has no endgame or goals that are realistic or will show up in any significant way scientifically as working to solve the problem. Apparently from what I read and the backers of the plan (lawyers) who's only affect is a litigious feeding frenzy for noncompliance and the complexity of the plan in general seems very short sighted and difficult. You've all bought into this plan and your jobs will be secure as long as there continues to be contractors who can remain afloat during these tough economic times and are willing to shell out large sums of money to test the clarity of construction activity water while the average home owner will fertilize, water and wash all the driveways down without even a thought of the pollution created by the masses.

Response: The Sacramento Metropolitan Air Quality Management District and other agencies prepared this plan do not have authority over water quality issues. The Air District encourages you to contact California Water Resources Control Board or U.S. Environmental Protection Agency to express your comments. The objective of this Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan and Draft Environmental Impact Report is to address the air quality issues in the Sacramento Area. High concentrations of ground-level ozone are harmful to human health. It can aggravate respiratory diseases, increase cardiovascular problems, cause premature death, and cause damage to crops and natural vegetation. This plan includes technologically and economically feasible control strategies to lower the harmful air pollutants by the federal mandated attainment date.

Letter from Mr. Ed Welch, Save the Air in Nevada County (September 25, 2008)

Comment #1: I would love to hear your opinion about whether it is good for Nevada County to be outside the Attainment Area. I have read a report concerning the issue, but it still seems questionable. In the report, it says that Nevada County will essentially maintain stronger autonomy to be outside the area. If we were in the area, our county would be subject to Sacramento AQMD oversight and regulations, and our county would likely be subject to Federal sanctions placed on the Sacramento area, loss of highway money, etc. I understand that, but Western Nevada County is not in attainment either and will likely stay out of attainment as long as the Sacramento area. So by being out of the attainment area, we lose our voice in the Ozone Plan, we still are susceptible to Federal sanctions, and we are not included in any number of programs within the attainment area. What gives? NSAQMD has more autonomy, but they only have three air pollution employees in Grass Valley and very tiny programs anyway.

Response: The boundaries for federal nonattainment areas are determined by the U.S. Environmental Protection Agency (EPA). Area designations for the 1997 federal 8-hour ozone standard were made in 2004 (69 FR 23858, April 30, 2004). The California Air Resources Board (CARB) first recommended boundaries to EPA. Along with information and recommendations provided by the State, EPA boundary guidance for 8-hour ozone nonattainment areas suggests the consideration of various air quality related factors. These factors include: emissions (sources, location, and control), air quality and monitoring data, population density and urbanization, traffic and commuting patterns, expected growth, meteorology, geography, and jurisdictional boundaries. Additional information can be found on EPA's designation Web site at: <http://www.epa.gov/ozonedesignations/>

During the development and review process for the Draft Ozone Plan, the Northern Sierra AQMD and interested Nevada County residents were contacted and encouraged to provide their input. Sacramento Metropolitan AQMD staff participated in various public meetings in Nevada County regarding air quality and the ozone planning process. Comments from Nevada County are taken into consideration along with comments from the Sacramento nonattainment region.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) does not have oversight authority over the other air districts in the Sacramento Federal Nonattainment Area (SFNA). Oversight authority rests with ARB and EPA.

Letter from Mr. Ed Welch, Save the Air in Nevada County (October 9, 2008)

Comment #1: Does the photochemical modeling account for the increased temperatures that are predicted for the region? If not, it is not factoring in increased ozone production from higher temperatures, as well as potentially increased biogenic VOCs from the higher temperatures.

Response: The impact of future climate change is not included in the photochemical modeling assumptions. In the view of CARB modeling experts, the temperature changes during the timeframe of this SIP will likely be small enough to have very little impact on the model results. Effects of climate change would be speculative in the short term, and impacts on the region's ability to attain will be tracked through the reasonable further progress (RFP) process.

Comment #2: The plan focuses on reductions to 84 ppb instead of the new 75 ppb standard. By 2017, when Western Nevada County is expected to be in compliance, the 75 ppb standard will have been in existence for 9 years. Why is this plan not accounting for reductions to the lower standard? (See p. 1-3 and 2-4)

Response: The Clean Air Act requires for the new 8-hour ozone NAAQS (73 FR 16503, March 27, 2008) that EPA make final designations by March 2010. The deadlines for submitting nonattainment area State Implementation Plans (SIPs) will be 3 years after final designations (2013). This plan to attain the 1997 8-hour ozone NAAQS will provide reductions essential to meet the 2008 NAAQS, but additional controls may be needed. The current plan includes all reasonably available control measures (RACM). The plan for the new 2008 ozone NAAQS will re-evaluate RACM based on technological advancements between now and 2013.

Comment #3: Attainment in Sacramento (and therefore Nevada County) is predicated on attainment in the Bay Area and the San Joaquin Valley. (See p. 1-10 and 9-2) Are their State Implementation Plans (SIPs) showing sufficient reductions for Nevada County to achieve attainment by 2017?

Response: CARB modeling for the attainment demonstration for the Sacramento nonattainment area used domain-wide emission reductions to characterize future ozone reductions at peak ozone monitoring stations. Therefore, for our area to attain, the reductions in forecasted emissions necessary and committed to in Sacramento must also be achieved in the areas that significantly impact the region. In other words, the attainment demonstration for the Sacramento nonattainment area is predicated on the San Francisco Bay Area and the San Joaquin Valley also achieving an equivalent additional percent reduction of NOx emissions in their forecasted 2018 inventory.

The reductions could come from either state or upwind regions' local measures, but we understand that CARB has committed to address the reduction requirement by implementing the new state measures statewide. The CARB attainment demonstration for Sacramento has not quantified state measure benefits in the Bay Area or the impact of Bay Area transport. However, it is likely that the state measures will achieve the percent reductions in the Bay Area and San Joaquin Valley similar to the percent reductions from the 2018 emission inventory forecasts for the Sacramento region.

Comment #4: What is the 2007 VOC emissions data for on-road vehicles? The drop from 2002 to 2011 in Table 5-2 seems precipitous. (See p. 5-6) Where does it stand now?

Response: The VOC emissions for on-road vehicles in 2007 are estimated at about 47 tons per day for the Sacramento nonattainment area. The significant drop in VOC emissions between 2002 and 2011 (64 to 38 tons per day in Table 5-2) is mainly due to the fleet turnover of older on-road light duty gasoline motor vehicles to cleaner newer vehicles assumed in the California Air Resources Board EMFAC2007 on-road vehicle emissions model. Additional information on the on-road vehicle emissions inventory can be found on the CARB website:

<http://www.arb.ca.gov/msei/onroad/on-road.htm>

Comment #5: Recreational boats are the highest single source of VOCs in the nonattainment area from 2011-2018 (See Table 5-2 on p. 5-6). What is being done in the plan to address this emissions source?

Response: The California Air Resources Board (CARB) is responsible for controlling emissions from recreational boats in the state. CARB has proposed a new state measure for establishing lower emission standards for recreational boats. (See Table 7-1 in Draft Ozone Plan.) They plan to adopt catalyst-based exhaust standards for new outboard and personal water craft (jet ski) engines and evaporative emission standards to address all sources of recreational boat evaporative emissions. Implementation of the new exhaust standard is expected to be phased in by 2013, and the evaporative standard by 2012. CARB anticipates this measure could achieve VOC emission reductions of about 3 tons per day for 2018 in the Sacramento nonattainment area. Additional information on the recreational boats control measure can be found on the CARB website:

<http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>

Comment #6: On-road motor vehicle emission reductions are significant from 2002-2018, but the population over that same time frame increases by about a million people. (See table 5-9, p. 5-14) How is this possible?

Response: Population and vehicle miles traveled (VMT) are forecasted to increase by about one third from 2002-2018 for the Sacramento nonattainment area. The forecasted decline in on-road motor vehicle emissions of about 60% during this period is mainly due to the fleet turnover of higher polluting older cars and trucks to cleaner newer vehicles assumed in the California Air Resources Board EMFAC2007 on-road vehicle emissions model. Existing CARB control strategies include requiring more stringent exhaust and evaporative emission standards and incentive programs to accelerate the retirement of older vehicles. Additional local control measures include incentive programs to promote the use of vehicle technology improvements. These state and local control strategies are expected to continue to be very effective in reducing future on-road vehicle emissions, despite the growth in population and VMT. Additional information on the on-road vehicle emissions inventory can be found on the CARB website: <http://www.arb.ca.gov/msei/onroad/on-road.htm>

Comment #7: Has the "modeled attainment test" (See p. 6-2) been conducted for the Grass Valley monitor? The text reads that "...the State is responsible for other nearby counties or areas outside the nonattainment area to address downwind influence." If this test has not been conducted for Grass Valley, is the Air Resources Board responsible for ensuring that testing is conducted?

Response: The attainment demonstration for each region relies on photochemical modeling of future ozone concentrations in a given year. The photochemical modeling is done over the entire domain of the Central California Ozone Study, which includes Nevada County. The California Air Resources Board (CARB) has completed modeling to support a Sacramento Nonattainment Area attainment demonstration for 2012 (for a 2013 attainment date under the "serious" classification) and 2018 (for a 2019 attainment date under the "severe-15" classification).

Nevada County was designated nonattainment by U.S. EPA under subpart one of the Clean Air Act, which was later vacated by the courts. As a result of this court decision, EPA must redesignate all former subpart one areas. At the time of the redesignation, EPA will establish an attainment deadline for Nevada County. If either a 2013 or a 2019 deadline is assigned, then appropriate modeling has been completed for Nevada County's attainment test. If another year is assigned, new modeling may need to be completed. CARB is responsible for conducting the modeling.

This is a rather unusual situation. Generally, EPA would designate all areas at the same time, and local plan elements for all nonattainment areas in the state would be developed more or less simultaneously.

Comment #8: What are the funding mechanisms for the Further Study Measures outlined in Section 7.20 (p. 7-28)? The emissions reduction benefits from these measures, particularly Urban Heat Island and Energy Efficiency, could be substantial. Does the study of these measures have a dedicated funding source, and if so, what level of funding is being provided?

Response: Additional funding may not be needed to complete the Further Study Measures outlined in Section 7.20. The Sacramento region is currently working with several other districts that have also committed to similar Further Study Measures to determine if our needs can be partially or fully met with studies that are already planned and funded elsewhere. These Further Study Measures may benefit from efforts undertaken by industries affected by the greenhouse gas (GHG) strategies included in by the California Air Resources Board's (CARB) AB32 Scoping Plan. This potential overlap may result in additional partners seeking the same analytical answers.

Comment #9: On page 9-3, the document states that "Ultimately, CARB is responsible for ensuring that Nevada County meets its federal attainment requirements." Please explain that statement more fully. Does it mean that the Sacramento Metropolitan AQMD has no legal or regulatory responsibility and/or authority for Nevada County's ozone attainment?

Response: Section 110(a) of the Clean Air Act requires each state to submit a State Implementation Plan (SIP) that provides for attainment of the NAAQS in each air quality control region (or portion thereof) within the state. Also, in the "Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard – Phase 2" (70 FR 71612, November 29, 2005), U.S. EPA indicated that the Clean Air Act requires individual states to deal with intrastate transport. The CARB has adopted specific responsibilities and requirements for upwind air districts as part of state plan obligations.

Letter from Greg Rowe, Sacramento County Airport System, (10/24/2008)

Bump-up and General Conformity

Comment #1: The new threshold increases the burden for the SCAS to limit emissions, while developing projects to meet public transportation needs and demands. The new threshold also lowers the level at which future emission increases would have to be fully offset. ..., the SCAS is incorporating air quality improvements into development plans and projects it manages. Although the estimates in the Sacramento International Airport (SMF) Master Plan Final EIR indicate that short-term potential growth will be below the lowered de minimis threshold, the emission growth at all regional airports needs to be carefully considered, so that near-term and long-term budget will accommodate required future growth.

Response: The Air District appreciated that the SCAS took considerations of the bump-up for ozone precursor pollutants when preparing the Sacramento International Airport Master Plan Final EIR. The Air District staff will work closely with SCAS staff to ensure future development and growth meets the general conformity requirement and accommodates required future growth.

Aircraft Emission Budget

Comment #2 It is unclear if and how the growth of aircraft operations within other counties in the Area Basin was included. Thus, the SCAS remains concerned that growth at airports in other counties might be inadvertently under-forecasted and that future air services at Sacramento County airports, especially SMF may be constrained.

Response: Growth of aircraft operations for other airports in the Sacramento Federal Nonattainment Area (SFNA) counties is based on California Air Resources (CARB) growth profiles for aircrafts developed specifically for each county. The growth profiles are based on California State University, Fullerton (CSUF) scenario of flight operations, and were updated to California Emissions Forecasting System (CEFS) on December 19, 1997. Thus, the aircraft emission forecast is growing independently for each county based on its aircraft activity growth profile.

The FAA Airport Data (5010) as of September 2008 shows that aircraft activity at Sacramento Federal Nonattainment Area (SFNA) is mostly general aviation operation (98%). Sacramento County is the only county in SFNA has commercial aircraft operations. Aircraft inventory and forecast will be updated as better activity data and estimation method become available.

The table below shows the 2002 inventory for SNA aircraft operations.

2002 Aircraft Emissions, Ton/Day

Area	ROG	%ROG	NOX	%NOx
Sac County	0.45	81.82%	1.6100	98.05%
Yolo	0.03	5.45%	0.0185	1.13%
Solano(SV)	0.01	1.82%	0.0096	0.58%
Placer(MC+SV)	0.02	3.64%	0.0003	0.02%
South Sutter	0.03	5.45%	0.0032	0.19%
El Dorado(MC)	0.01	1.82%	0.0005	0.03%
Total SNA	0.55	100.00%	1.6421	100.00%

Ground Service Equipment (GSE) Emissions Budget

Comment #3: The SCAS concerned that the SIP emissions budgets shown in Table 12-1 for regional GSE may be incomplete. These budgets are expected to decline in the future, even as more GSE services will be required for additional future aircraft operations. Review of the Off-Road Appendices to the Draft SIP shows only 217 GSE items were included in the 2002 regional emission estimates. The number of GSE items in the entire air basin is expected to increase to 326 by 2018. ..., all the GSE are shown to be located in Sacramento County, and no GSE emissions are estimated out of Sacramento County. The current and projected GSE emissions may be underestimated, because the equipment needed to provide aircraft ground services at non-Sacramento County airports has not been included. Small Airports such as Woodland and Yolo County do deploy GSE for aircraft towing.

Response: GSE emissions are determined through CARB's OFFROAD model and are calculated for the state and allocated to each county based on commercial aircraft activities. Thus, the GSE for Sacramento/Sacramento Nonattainment Area (SNA) is based on number of the commercial aircraft operations in Sacramento/SNA relative to that of other areas in California. Since other SNA districts do not have commercial aircraft operations, there is no GSE emissions allocated to these districts. Though GSE is only allocated to Sacramento, it should represent GSE for the nonattainment area.

Emission inventory is undergoing improvement continuously. As better data and methodology become available, the inventory is updated. CARB OFFROAD model accounts for the anticipated reductions from offroad equipment regulations. Airport budget, like the transportation budget, reflects anticipated future year emission reductions from adopted regulations. District will work with CARB to improve the inventory.

Comment #4: Future Estimates for VOC and NOx emissions from GSE activities at all airports in the entire Air Basin may not be sufficient unless aggressive assumptions about equipment replacement and regulatory enforcement are made. New regulations have been adopted by the CARB for off-road equipment, including airport GSE. The requirement to rapidly phase-in low emission off-road engines is an important goal of these regulations. The airlines and their contractors own and operate a variety of specialized GSE to service particular types of aircraft. Airport operators do not regulate or in any way otherwise dictate the types of equipment to be used. The local air districts and CARB will be responsible for enforcing the off-road regulations with the individual tenants at each of the regional airports.

Response: Comment noted.

Closing

Comment #5: The SCAS provided infrastructure to encourage the use of alternative fuels or electricity by their tenants. However, the SCAS cannot dictate the types of aircraft or other equipment that their tenants may choose to operate. The decisions of the tenants are based upon financial considerations, which become even more critically important during these difficult economic times.

Response: We applaud the airport's decision to provide infrastructure to encourage airlines to use less-polluting energy sources.

Airport GSE projects may be funded by the Carl Moyer Program or the Department of Motor Vehicles (DMV) surcharge on registration fees. The region has provided limited funding for alternative fuel infrastructure to those fleets that have made a significant commitment to alternative fuel use within their fleets and to the community. We encourage the SCAS and their tenants to replace their existing compression ignition or spark ignited equipment with new zero emission technologies, and work with the airlines to commit, via airline contracts, to the use of zero emission GSE fleets operating at the SCAS airports.

Comment #6: The SCAS wishes to clarify a statement in Section 12.5 of the Draft SIP, which was repeated in the Draft EIR. The first paragraph in the Section 12.5 states as follows: Sacramento County airports include: SMF, Mather, Executive, McClellan, Franklin, Rancho Murieta, Sunset, Natomas, and Rio Linda." Readers could infer from this sentence that the SCAS operates a total of nine airports, which is not the case. For clarity, the SCAS suggest the paragraph be revised as follows.

The Sacramento County Airport System is comprised of four airports: Sacramento International (SMF), Mather (MHR), Executive (SAC), and Franklin (F32). In addition, the County Airport System manages the aviation activities at McClellan Airport on behalf of another County agency. Four private airports also operate in Sacramento County: Natomas, Rancho Murieta, Rio Linda, and Sunset.

Response: Thank you for your updated information for the airports description in the Sacramento County. We will incorporate your suggested paragraph in both of the Plan and the EIR.

Comment #7: Natomas Airport was closed in 2000, is no longer, and should not be included in the SMAQMD inventory of county airports.

Response: Comment noted. The Air District will update the text in the plan. However, it is not possible for the SMAQMD to update the emissions inventory at this stage of the plan. When SMAQMD staff prepared the airport emissions inventory, it was based on the 1999 airport survey results and projected to 2002 emissions. Information available at the time when SMAQMD prepared the inventory did not indicate that the airport was closed in 2000. The NO_x and VOC emissions from the Natomas Airport are very small compared to the overall airport emissions inventory. It should not have a significant impact on the general conformity budget.

Letter from Camile Kustin, Environmental Defense et al (October 20, 2008)

Comment #1: Achieve additional emissions reductions

The Plan estimates that both the construction and operational ISRs will each contribute reductions of less than 0.1 tons per day of NOx and VOCs by 2018. These reductions are modest and we believe that the ISR has the potential of achieving greater reductions. As modeling technologies improve and the region continues to grow, the ISR will prove itself to be a critical element of the ozone plan. URBEMIS is the popular modeling tool for estimating development project emissions, but it does not adequately reflect the costs and benefits of project location within a specific region, which may result in an increased number of vehicle trips and longer travel distances. As the AQMD looks to other models, including the parameters listed above will more accurately represent the environmental impacts of site selection and land use patterns that directly affect air quality across the region. This will allow the air district to more accurately predict the emissions impacts and reduction needs.

Response:

In order to estimate potential reductions from the Construction ISR rule, Staff used the California storm water permit database to estimate the number of projects occurring in the area and URBEMIS to estimate the emissions generated from these projects during construction. For the Operational ISR rule, Staff used the percent reduction commitments made by the SJVUAPCD and the SCAQMD in their ozone attainment plans, applied to the SMAQMD inventory.

For operation emissions, SACOG is currently working on a new tool called iPLACES, which addresses the issues identified by the commenter and estimate region-wide emissions impacts from individual projects. When this tool is in place, Staff expects to be able to quantify the impacts of a projects location within a specific region.

Staff believes these emission benefit estimates are conservative and as the modeling tools improve the actual emission reduction achieved may be larger than our initial projections.

Comment #2: Follow the San Joaquin Valley's ISR Framework

While we recognize that details of the rule will be addressed during the rulemaking process, as AQMD staff begins to consider rule design, we recommend they follow the general framework used in the San Joaquin Valley. This will help provide uniformity throughout the state and ease implementation and compliance. The San Joaquin Valley rule has also proven to be effective.

In just two years, ISR implementation in the San Joaquin Valley has reduced and prevented more than 6000 tons of NOx and particulate matter emissions. Developers who have embraced the rule have come up with innovative compliance solutions: construction equipment retrofits, sitting close to public transportation and existing job centers, signing contracts to maintain cleaner vehicle fleets, and increasing building energy efficiency.

Specifically, we support a framework that quantifies emissions, before and after mitigation measures have been included, sets emissions tonnage thresholds, project size thresholds, and emission reduction requirements, and includes a fee option to achieve offsite emissions reductions when onsite reduction strategies are unavailable. We also recognize that a one-size-fits-all approach may not work, and that specific requirements may have to be tailored to meet certain needs throughout the Sacramento region. Even though some specifics may need adjusting, the framework used in the San Joaquin Valley rule can be similarly applied in Sacramento to allow projects to move forward while improving air quality.

Response: These control measures are modeled after our existing CEQA mitigation program and rules in place in other districts, especially the San Joaquin Valley. The proposed control measure commits to a framework that includes quantification of emissions before and after mitigation measures are applied, sets appropriate applicability limits and emission reduction requirements. The emission reduction requirements are proposed to include a fee option to achieve offsite reductions when onsite reductions are unavailable.

Comment #3: Design an ISR that is complementary to existing policies and legislation

As the AQMD moves forward with ISR rule development, the District should attempt to integrate its air quality regulations with evolving land use policies. SACOG's regional Blueprint, California's Global Warming Solutions Act (AB 32), and now the Sustainable Communities Act (SB 375) can work together to encourage development that meets 21st Century demands.

Response: Comment noted. The proposed control measure has been revised to specifically call out the integration issues identified.

Comment #4: Evaluate the real costs of action versus inaction

Experience with the ISR in the San Joaquin Valley has indicated that additional development costs of mitigation are minimal. A 2007 survey of 9 housing developments estimated a per-unit cost increase of just \$420. In return, prospective homeowners and tenants get improved air quality and safer, more walkable communities to live and work.

Many Sacramento area developers who build “smart” projects that also take into account ways to reduce indirect source pollution, e.g. locating near transit, jobs and services and in walkable communities are still selling houses and commercial space. Developments located far outside the urban core, and that produce a heavier burden in indirect source pollution, face unprecedented foreclosures and even bankruptcy.

Response: Commented noted. The potential cost estimates only include costs of complying with the ISR rules using information available at this time. Cost associated with not implementing an ISR rule is not available. We will be revising the cost effectiveness calculations when the rules are developed for adoption by the governing boards.

**Letter from Samuel F. Longmire, Northern Sierra Air Quality Management District
(October 24, 2008)**

Comment #1: While the Plan does say that reductions in the SFNA will benefit WNC's (Western Nevada County) efforts to reach attainment, there is no discussion of the fact that WNC's 8-hour ozone values are not following the downward trend observed in the SFNA. The NSAQMD recommends that the Plan include a discussion of this apparent anomaly. Rapid growth in the northeastern part of the SFNA (particularly in Placer County) has been implicated in public forums as a factor. Placer is the fastest-growing county in the State (according to Department of Finance data), experiencing a population growth rate between April 1, 2000 and January 1, 2006 of 27.4% (compared to 8.8% for Nevada County). The City of Lincoln grew by 200% during the same period and has many residents who commute to Sacramento to work. There is a large swath of land north of I-80 and west of Auburn with no ozone monitor, so there is no data for tracking ozone development and transport to WNC through this rapidly growing area.

Response: The Sacramento Regional 8-Hour Ozone Attainment Plan is a federal plan prepared to comply with the federal Clean Air Act requirements to submit a State Implementation Plan. California's full SIP includes the state strategy for attainment, local element plans specific to each nonattainment area, and other documents. Because the Sacramento plan is specific to the Sacramento attainment area, it discusses ozone trends for the Sacramento Region, and not for other regions. Upon formal designation and assignment of an attainment date by U.S. EPA, Nevada County will begin preparation of its own attainment plan. A discussion of ozone trends in Nevada County will be an important component of this plan.

Under the California Clean Air Act, upwind areas affecting air quality in downwind regions are responsible for incorporating specific mitigating requirements in their state plans. As the Sacramento Regional 8-Hour Ozone Attainment Plan is a federal plan, this discussion is not required. Each district in the Sacramento Nonattainment Area intends to update their state plans during 2009.

Comment #2:

The NSAQMD recommends consideration of the following reasonably available measures, or similar measures, relating to ERC redemption. This would involve discussion with EPA and with CARB, and presumably include considerations relating to California's "All Feasible Measures" requirement. It may be possible to fold one or more of the following recommendations into the ERC rule that is under development. The primary focus should be on NOX credits, since modeling indicates that ozone concentrations in the SFNA and, especially, in downwind rural areas including WNC, are more responsive to NOx reductions than VOC reductions.

- 1) Commit all or some of the ERCs to non-summer activities (such as controlled burning for fire safety or agricultural purposes) or restrict their actual use by purchasers during ozone season via operating permit conditions.
- 2) Stipulate that ERCs cannot be redeemed until transport-impacted areas reach attainment (except for the possible exception of necessary power generation projects).
- 3) Buy up the ERCs from the credit holders (using mitigation funds or other funding sources) and retire them permanently.
- 4) Designate the ERCs (or a portion thereof) for use in the downwind mountain counties rather than inside the SFNA, in accordance with the offset ratio requirements of the Clean Air Act.

As an explanation of the logic behind the last recommendation above, the mountain county nonattainment areas are facing an unusual situation in which they are likely to become Serious or Severe nonattainment areas within a year (with major source thresholds of 50 and 25 tons respectively), but they have minimal opportunities for generating ERCs to offset the establishment or modification of major sources under NSR. Thus, downwind rural areas are suffering in more than one way from ozone generated in the SFNA – not just from the high ozone itself but also from regulatory constraints that apply simply due to the presence of the transported ozone. The Clean Air Act's ERC requirements indirectly limit economic development in transport-impacted rural areas by limiting the potential for industrial growth and power generation. The point of including offset requirements in the Clean Air Act was to place emission constraints on an area that fails to attain the NAAQS in order to force the area toward attainment. However, since the 8-hour average captures transport-impacted areas more than the 1-hour standard did but the Clean Air Act has not changed, the development constraints end up affecting rural areas that have never even had the opportunity to develop a large emissions base from which ERCs could flow. Earmarking the ERCs for use in the transport-impacted mountain counties would both assist the SFNA in their precursor reduction efforts (thereby reducing ozone concentrations and assisting with future Reasonable Further Progress demonstrations) and increase economic opportunities in areas that are affected by SFNA's transported ozone.

Response:

The federal Clean Air Act requires the use of offsets at specified facilities during the required preconstruction permit programs in nonattainment areas, and as such, the Act anticipates the need for offsets in nonattainment areas. EPA requires in order to show compliance with Section 173(a)(1)(A) of the federal Clean Air Act that the pre-2002 emission reduction credits be incorporated in to the plan and that attainment with the federal ambient air quality standards for ozone be demonstrated by the applicable statutory date. The pre-2002 emission reduction credits, including the rice burning credits, have been included in the draft plan and attainment has been demonstrated by 2018.

Emission offsets are a necessary part of the preconstruction permitting program and to the extent that the credits meet all the applicable federal, state and local regulations need to be available for use by facilities going through the new source review permitting in the nonattainment area.

Since the Sacramento Federal Nonattainment Area is a separate nonattainment area and some portion are separate air basin under state regulations from the Western Nevada County Federal Nonattainment Area and Mountain Counties Air Basin, there are state and federal regulations that apply to the use of emissions reduction credits created in one area for use by a facility in the other area. If a source in Nevada County needed NOx emission offsets and all the requirements in the federal Clean Air Act Part 173(c)(1), 40CFR51 Appendix S, and California Health and Safety Code Section 40709.6 are met, then a Nevada County source could negotiate to buy credits. Because Nevada County does not have a state ozone classification it is not clear that state requirements could be satisfied for Sacramento Valley portions of the Sacramento Federal Nonattainment Area.

Comment #2a: The NSAQMD is concerned that generating ERCs from reductions in rice field burning could have the unwanted effect of moving precursor emissions from the fall and spring rice-burning seasons into the peak of the ozone season (July and August). If ERCs from reductions in the burning of rice fields are used by a source that operates throughout the summer, then the net result is an increase in ozone precursor emissions during the time of year when it is most crucial to reduce emissions.

Response: ERC's generated in the winter months could not be used during peak ozone season under the current ERC program. When ERCs are banked, they are issued only in the calendar quarters in which the emissions originally occurred. Consequently, because rice burning has predominantly occurred in the 1st and 4th calendar quarters, the majority of ERCs will be issued for these quarters as well. While there will be some rice credits issued for the 2nd and 3rd quarters, the credits will be directly proportional to the amount of rice which was historically burned in those quarters. Any ERC's issued for the 1st and 4th calendar quarters, however, cannot be shifted to the 2nd or 3rd calendar quarters.

Because most rice ERC's were generated during winter months and cannot be used during the ozone season, either modifying the manner in which these ERC's are used or prohibiting their use would have little effect on ozone levels in the mountain counties.

Comment #3: Modeling Episodes

It is not clear why the longer August 8-17, 2002 episode was not chosen for Sacramento's attainment demonstration. It seems that using a larger data set would be the conservative approach, leading to more reliable modeling, and that a more recent year would have an emission profile more similar to current conditions – two factors that favor its use over the use of the shorter 1999 period (when the wind carried more of the ozone farther south). On August 13, 15 and 17 of 2002, WNC had higher 8-hour ozone concentrations than any other area in the mountain counties or the SFNA.

Recommendation 3: Episode Selection Discussion

The NSAQMD recommends that the main body of the Plan include more details on the episode selection criteria (perhaps in Section 6.6), on the episodes dismissed from consideration, and on the process used to determine that the episodes chosen are characteristic of the actual ozone transport situation. At least a qualitative summary of the other episodes that were under consideration and how they differ from the ones selected would be useful in assisting the public in evaluating the appropriateness of the episode selection. The NSAQMD further recommends that the Plan include a clear, mathematically and scientifically sound discussion of what would be expected if the 2002 episode were chosen for the SFNA's attainment demonstration modeling, and an explanation of why the 1999 episode is a superior choice.

Response:

The evaluation of the episode days selected for air quality modeling included many local, state and federal governmental agencies, consultants, and stakeholder interest groups that participated in the Central California Ozone Study (CCOS) and other air quality technical committees formed in support of ozone SIP developments for Central California. A large body of work was produced by these study groups toward the goal of determining representative candidate episode periods for use in 8-hour ozone SIP modeling for the region. From this collective body of work, the following four episodes were identified as having the greatest potential for accurate SIP modeling in the region:

- July 7-13, 1999 (captured with routine state and local measurements)
- July 29-August 2, 2000 (CCOS-studied episode)
- September 17-21, 2000 (CCOS-studied episode)
- August 8-17, 2002 (captured with routine state and local measurements)

Due to time constraints and based on model performance issues expressed by study efforts for the two later episodes, the first two episodes (July 7-13, 1999 and July 29-August 2, 2000) were determined to be the most adequate for the initial round of 8-hour ozone SIP

attainment planning. Brief summaries of the two episodes selected for SIP modeling are contained in the Plan's Appendix B – Photochemical Modeling, along with a list of available California Air Resources Board (CARB) modeling reference documents for the Sacramento SIP modeling.

With regard to the two potential episodes that were dropped from consideration, CCOS sponsored a project that was focused on developing the third episode (September 17-21, 2000) while the Sacramento Metropolitan Air Quality Management District sponsored a project to develop the fourth episode (August 8-17, 2002). As indicated above, achieving adequate model performance for both of these periods was problematic.

The August 8-17, 2002 episode was pursued by the Sacramento Air District under independent contract with the Desert Research Institute (DRI). DRI was not able to achieve adequate model performance with the episode, rendering it unusable for SIP attainment demonstration modeling. With regard to Nevada County, the modeling of the August 2002 episode failed to reproduce the observed range in 8-hour ozone concentrations at Grass Valley.

The August 2002 episode was found not to be representative due to the large number of wildfires within the domain and an especially large wildfire in southern Oregon. The smoke and presumably ozone precursors flowed along the coast and some of the smoke plume penetrated into central California near the San Francisco Bay Area. Undoubtedly, emissions from the wildfire influenced ozone levels at many monitors, meaning that these days were not reflective of typical summertime high-ozone days, when precursor emissions are dominated by anthropogenic emissions.

More details and discussion of episode selection will be added to the Plan's Appendix B – Photochemical Modeling. Additional references pertaining to the evaluation of potential ozone modeling episodes will also be included.