

**SACRAMENTO METROPOLITAN  
AIR QUALITY MANAGEMENT DISTRICT**

For Agenda of **August 25, 2011**

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

**From:** Larry Greene  
Executive Director/Air Pollution Control Officer

**Subject:** Public Hearing to Adopt a Resolution Approving Amendments to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan by Removing Control Measure IS-1, Construction Mitigation Rule

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**Recommendations**

1. Conduct a public hearing; and
  2. Adopt the attached resolution approving the amendments to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan.
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**Executive Summary**

In 2009, the Governing Boards of the districts in the Sacramento Federal Nonattainment Area adopted the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Plan) to achieve the federal 8-hour ozone air quality standard by 2018. The Plan included the indirect source review (ISR) emissions control measure IS-1, Construction Mitigation Rule. This measure requires mitigating reductions for NOx emissions from construction of new land use development projects. The U.S. Environmental Protection Agency (EPA) has not yet approved the Plan. Staff recommends removing this control measure from the SIP because:

- It largely duplicates our existing CEQA construction mitigation program, which is being consistently implemented by CEQA lead agencies.
- Construction emissions are significantly lower than previously estimated, and
- IS-1 would require projects to demonstrate that their construction equipment emissions will be 20% below the statewide average. Overtime, the delta between the fleet average emissions and clean equipment available for purchase is shrinking as new California Air Resources Board (CARB) standards go into effect. This will make it more difficult and expensive for industry to make the 20% demonstration.

Staff has evaluated the removal of control measure IS-1 from the Plan and has concluded that the removal will not interfere with the attainment demonstration, reasonable further progress (RFP) demonstration or contingency measures, and does not change the reasonably available control measure (RACM) conclusions.

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## Attachments

The table below identifies the attachments to this memo:

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## Background

In January 2009, this Board approved the Plan that includes the information and analyses to fulfill the federal Clean Air Act (CAA) requirements for demonstrating reasonable further progress and attainment of the 1997 8-hour ozone National Ambient Air Quality Standard in the Sacramento region by 2018. The Plan was approved by CARB on March 26, 2009 and submitted to the EPA on April 17, 2009 as part of the State Implementation Plan. The Plan has not yet been approved by the EPA.

The Plan includes control measure IS-1, Construction Mitigation Rule, which addresses emissions from indirect sources. The term "indirect source" means a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. This control measure committed the District to adopt a rule to mitigate emissions generated by equipment used during the construction phase of a land use project. Compliance can be achieved either by using cleaner construction equipment or payment of a fee that the District would use to fund other emission reduction projects.

IS-1 is similar to the District's CEQA mitigation program. District staff reviews CEQA environmental documents and recommends that on-site mitigation be required by the lead agency when construction-related emissions are expected to have a significant air quality impact. If a project still has a significance impact, then staff recommends that the lead agency require fees to offset the excess emissions. Recently, District land use CEQA review staff has noted that lead agencies increasingly implement District-recommended CEQA mitigation strategies.

In 2010, Staff began development of a concept paper for Rule 1052, Construction Mitigation, to implement control measure IS-1. On August 26, 2010, the District's Board of Directors considered the IS-1 (Rule 1052 – Construction Mitigation) concept paper. Many members of the Board expressed concern that the administrative costs associated with implementing a Construction Mitigation Rule were appropriate considering the current state of the economy and the decline in construction activity. Although the District could remove the measure in the future, removal after EPA approval of the Plan would also require EPA approval. Removal prior to EPA approval avoids that step.

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## Reasons for Plan Amendment

Staff recommends removing this control measure from the SIP because:

- It largely duplicates the existing CEQA construction mitigation program, is being consistently implemented by CEQA lead agencies; and
- Construction emissions are significantly lower than previously estimated.
- Overtime, as new CARB standards go into effect, it will be more difficult and expensive for the construction industry to demonstrate that their construction equipment emissions are 20% below the statewide average.

CARB recently re-evaluated the off-road emission inventory and found that construction equipment emissions have declined significantly, due to decreased construction activity during the economic downturn and new emission rate information. CARB's new emissions estimates show that between 2005 and 2010, construction emissions dropped by more than 50 percent. New housing permits in Sacramento County have decreased by 81% from 2006<sup>1</sup> and the employment in the Sacramento County construction industry has decreased by 41%<sup>2</sup>.

These emissions changes will be reflected in the next ozone plan evaluations and help Staff determine whether a construction mitigation rule will be needed to meet the upcoming revised federal ozone air quality standards.

## Potential Costs

As you know, the District has reduced staffing by 10%. Implementing control measure IS-1 would require additional staff resources and training for project evaluation, monitoring, and enforcement. These costs would require construction projects pay new or higher fees than the current CEQA mitigation fees, which may be subject to Proposition 26 and require approval by a two-thirds vote by the electorate.

In addition to the fees, projects would continue to pay mitigation fees that are similar to those currently required by local jurisdictions. Small projects that do not pose a significant air quality impact under the CEQA review program may be subject to the construction mitigation rule and, therefore, would incur an additional cost.

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## Legal Requirements

The Clean Air Act (CAA) Section 110(l) prohibits SIP revisions that would interfere with attainment and requires reasonable notice and public hearings on all revisions. The attached staff report discusses each of the CAA requirements relevant to removing IS-1 – Construction Mitigation, and establishes that removal is permissible because the prior SIP analysis did not rely on the measure to demonstrate attainment or reasonable further progress, or to meet contingency requirements. Removal also does not change the prior conclusion that the SIP contains all reasonable control measures.

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<sup>1</sup> Construction Industry Research Board, 2006, 2010 (cited by California Building Industry Association), <http://www.cbia.org/go/cbia/newsroom/housing-statistics/housing-starts/>

<sup>2</sup> Bureau of Labor Statistics, accessed January 2011, <http://www.bls.gov/cew/data.htm>

## **Environmental Review and Compliance**

A Final Environmental Impact Report (FEIR) for the 2009 Plan was adopted by the SMAQMD Board of Directors on January 22, 2009. The FEIR concluded that the Plan would have no significant adverse environmental impacts.

This project does not require any changes to the FEIR and, therefore, the proposed revision to the Plan is exempt from CEQA pursuant to California Code of Regulations Title 14, Chapter 3, Section 15162(a)(1) - Subsequent EIRs and Negative Declarations.

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## **Public Review Process**

Staff held a public workshop on June 7, 2011 to discuss the proposed Plan revisions. At that time, Staff was proposing to remove IS-1 and IS-2, Operational Indirect Source Review. The noticing for this workshop included:

- Email notices to 2,337 recipients:
  - interested and affected parties;
  - industry associations, developers, contractors, local jurisdictions, and other groups associated with land use development and;
  - all persons who have requested to receive rulemaking notices.
- Hard copy notices to all those who have requested them.
- A notice published in the Sacramento Bee in the Our Region section.
- A notice posted on the District web site on May 9, 2011. The draft rule and staff report were made available for public review at that time.

Staff did not receive any comments or questions at the public workshop.

Staff held a separate meeting with Environmental Defense Fund and Breathe California to discuss the proposed amendments to the SIP. After discussion about the effects of removing the measures from the Plan, Staff changed the original proposal and is no longer proposing to remove IS-2. While keeping the provision in the Plan will make it more difficult to remove in the future because removal then would require EPA approval, Staff recommends against removal because:

- In contrast to the District's CEQA construction phase mitigation program, the CEQA program for mitigating operational emissions is not consistently implemented.
  - Although Staff has not yet developed concepts for the operational ISR measure, or evaluated the benefits from SB375 or the usability of the SACMET model, an operational ISR rule has the potential to provide support for numerous sustainability programs, including SB375.
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**Conclusion and Recommendations**

The control measure IS-1 – Construction Mitigation would enforce and implement a program similar to the District’s current CEQA construction mitigation program. Staff recommends removing this control measure from the 2009 Plan because construction emissions are significantly lower than previously estimated and the measure would impose new costs on the construction industry. Staff recommends that the Board determine that the proposed amendments to the Plan are exempt from CEQA and adopt the attached resolution approving the Plan amendments, removing the District’s Plan commitment to adopt control measure IS-1, Construction Mitigation Rule.

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Respectfully submitted,

Approved as to form:

\_\_\_\_\_  
Larry Greene  
Executive Director/Air Pollution Control Officer

\_\_\_\_\_  
Kathrine Pittard  
District Counsel

Attachments

**Attachment A**  
**Board Resolution**

**RESOLUTION NO. AQM \_\_\_\_\_**

**SACRAMENTO REGIONAL 8-HOUR OZONE ATTAINMENT AND REASONABLE  
FURTHER PROGRESS PLAN**

**THE BOARD OF DIRECTORS  
OF THE SACRAMENTO METROPOLITAN AIR QUALITY  
MANAGEMENT DISTRICT**

**WHEREAS**, the United States Environmental Protection Agency (EPA) promulgated the 1997 National Ambient Air Quality Standard (NAAQS) for ozone of 0.08 parts per million with an 8-hour averaging time and determined that the standard is necessary to protect human health (Federal Register, Vol. 62, No. 138, pages 2-37 (July 18, 1997)); and

**WHEREAS**, in January and February of 2009, the Boards of Directors of the districts of the SFNA adopted the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2009 Plan), which satisfies the attainment and reasonable further progress demonstration requirements associated with the 1997 ozone NAAQS (42 USC §7502 (c) and §7511a); and

**WHEREAS**, the new information developed during staff's continued analysis of the 2009 Plan commitments established that the construction emissions that would be impacted by control measure IS-1, CONSTRUCTION MITIGATION are significantly lower and the control measure would impose new costs on the construction industry; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the lower construction emissions and new costs that would be imposed on the construction industry justifies removing control measure IS-1, CONSTRUCTION MITIGATION from the 2009 Plan; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the Plan revision will not change the attainment demonstration or interfere with attainment (Clean Air Act Sections 172(c)(1) and 182(c)(2)(A)); and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the Plan revisions will not interfere with the reasonable further progress (Clean Air Act Sections 182(c)(2)(B) and (C)); and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the Plan revisions do not change the conclusion that the 2009 Plan includes all reasonably available control measures (Clean Air Act Section 172(c)(1) and 182(c)); and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the Plan revisions do not change the 2009 Plan Clean Air Act contingency measures (Clean Air Act Sections 172(c)(9) and 182(c)(9)); and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District held a duly noticed public hearing on August 25, 2011 and considered

public comment on the proposed Plan revisions (Clean Air Act Section 110(l) (42 United States Code Section 7410(l))); and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has maintained records of the revision proceedings; and

**WHEREAS**, this action is exempt from CEQA by California Code of Regulations Title 14, Chapter 3, Section 15162(a)(1) – Subsequent Environmental Impact Reports and Negative Declarations, because the project does not require any changes to the Final Environmental Impact Report for the 2009 Sacramento Regional Non-Attainment Area 8-Hour Ozone Attainment and Reasonable Further Progress Plan (March 26, 2009).

**NOW, THEREFORE, BE IT RESOLVED** that the Board of Directors of the Sacramento Metropolitan Air Quality Management District determines the revision to the Plan is exempt from CEQA; and

**BE IT FUTHER RESOLVED** that the Board of Directors of the Sacramento Metropolitan Air Quality Management District approves and adopts the proposed revisions to the 2009 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan; and

**BE IT ORDERED** that the Board of Directors of the Sacramento Metropolitan Air Quality Management District directs staff to forward the adopted revision and all necessary supporting documents to the California Air Resource Board for its approval and subsequent submittal to EPA for final approval as a revision to the State Implementation Plan.

ON A MOTION by Director \_\_\_\_\_, seconded by Director \_\_\_\_\_, the foregoing Resolution was passed and adopted by the Board of Directors of the Sacramento Metropolitan Air Quality Management District, State of California, this 25<sup>th</sup> day of August, 2011, by the following vote, to wit:

AYES: Directors

NOES: Directors

ABSENT: Directors

\_\_\_\_\_  
Chairperson of the Board  
Sacramento Metropolitan Air Quality Management District  
State of California

(SEAL)

ATTEST: \_\_\_\_\_  
Clerk of the Board  
Sacramento Metropolitan Air Quality Management District

**Attachment B**  
**Amended Plan Pages**

The following Table 1-3 contains a summary of the proposed new regional and local control measures and expected VOC and NO<sub>x</sub> emission reductions for the Sacramento nonattainment area for the 2018 attainment demonstration year. Emission benefits from these new committal measures are estimated to provide reductions of 3 tons per day of VOC and 3 tons per day of NO<sub>x</sub> in 2018. Some of these new local measures will be adopted by the end of 2008, and emission benefits from just these adopted new measures are estimated to provide reductions of 1 ton per day of VOC in 2018.

**Table 1-3  
Summary of New Regional and Local Proposed Control Measures  
Sacramento Nonattainment Area**

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO <sub>x</sub>
<b>Regional Non-regulatory Measures</b>		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	-	-
Urban Forest Development Program	0 - 0.2	-
<b>Total Regional Non-regulatory Measures</b>	<b>0.1</b>	<b>0.9</b>
<b>Local Regulatory Measures</b>		
Indirect Source Rule - Construction	-	≤0.1
Indirect Source Rule - Operational	0-<0.1	0-0.1
Architectural Coating	1.5	-
Automotive Refinishing	0.2	-
Degreasing/Solvent Cleaning	1.4	-
Graphic Arts	na	-
Miscellaneous Metal Parts and Products	<0.1	-
Natural Gas Production and Processing	0.1	-
Asphalt Concrete	-	0.1
Boilers, Steam Generator, and Process Heaters	-	0.2
IC Engines	-	0.1
Large Water Heaters and Small Boilers	-	0.9
<b>Total Local Regulatory Measures</b>	<b>3.2</b>	<b>1.43</b>
<b>Total Reductions*</b>	<b>3.4</b>	<b>2.76</b>

Notes: Numbers are truncated to one decimal place. na = not available

\*Total reductions are summed from untruncated values. See summary table in Appendix C – Proposed Control Measures.

Depending upon the size and type, the timeline for a construction project can vary from a few months to years.

This control measure will reduce NO<sub>x</sub> emissions from equipment associated with the construction phase of new land use projects. The requirements that are being considered for the control measure are based on the construction requirements of San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) Rule 9510, Indirect Source Review, which specifies that all applicable projects mitigate their NO<sub>x</sub> emissions by 20% less than the statewide average emission rates either by using cleaner construction equipment or modifying the construction equipment (through retrofits, replacements, or post-combustion controls), or by paying a fee that will be used by the districts to obtain emission reductions.

The proposed control measure commits to a framework that includes quantification of emissions before and after mitigation measures are applied, establishes appropriate levels to define who is subject to the rule and emission reduction requirements for affected sources. The proposed emission reduction requirements will include a fee option to achieve offsite reductions when onsite reductions are insufficient. The proposed control measure will be evaluated for adoption by districts noted in the table below.

The estimated emission reductions from the construction mitigation rule are provided in the following table.

Construction Mitigation Rule			Emission Reduction (TPD)	
District	Adoption Year	Implement Year	2018	
			VOC	NO <sub>x</sub>
SMAQMD	2010	2011	---	<0.1
PCAPCD	2013	2014	---	<0.1
FRAQMD	2013	2014	---	unknown
<b>Total</b>			---	<b>≤0.1</b>

During the rule development process, staff will explore integration of this rule with CARB's offroad engine rule to ensure that the 20% requirement is feasible and cost effective through 2018 and beyond.

**IS-2: Operational Indirect Source Rule**

This control measure will reduce emissions generated during the operational phase of indirect sources. An indirect source is defined as any facility, building, structure or installation, or combination thereof, which generates or attracts mobile source activity that results in emissions of any pollutant for which there is a state ambient air quality

**Table 7-4  
Summary of New Regional and Local Proposed Control Measures  
Sacramento Nonattainment Area**

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO <sub>x</sub>
<b>Regional Non-regulatory Measures</b>		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	--	--
Urban Forest Development Program	0 - 0.2	--
<b>Total Regional Non-regulatory Measures</b>	<b>0.1</b>	<b>0.9</b>
<b>Local Regulatory Measures</b>		
Indirect Source Rule - Construction	--	≤0.1
Indirect Source Rule - Operational	0-<0.1	0-0.1
Architectural Coating	1.5	--
Automotive Refinishing	0.2	--
Degreasing/Solvent Cleaning	1.4	--
Graphic Arts	na	--
Miscellaneous Metal Parts and Products	<0.1	--
Natural Gas Production and Processing	0.1	--
Asphalt Concrete	--	0.1
Boilers, Steam Generator, and Process Heaters	--	0.2
IC Engines	--	0.1
Large Water Heaters and Small Boilers	--	0.9
<b>Total Local Regulatory Measures</b>	<b>3.2</b>	<b>1.43</b>
<b>Total Reductions*</b>	<b>3.4</b>	<b>2.76</b>

Notes: Numbers are truncated to one decimal place. na = not available

\*Total reductions are summed from untruncated values. See summary table in Appendix C – Proposed Control Measures.

The following Table 14-1 contains a summary of the proposed new regional and local control measures and expected VOC and NO<sub>x</sub> emission reductions for the Sacramento nonattainment area for the 2018 attainment demonstration year. Emission benefits from these new committal measures are estimated to provide reductions of 3 tons per day of VOC and 3 tons per day of NO<sub>x</sub> in 2018. Some of these new local measures will be adopted by the end of 2008, and emission benefits from just these adopted new measures are estimated to provide reductions of 1 ton per day of VOC in 2018.

**Table 14-1**  
**Summary of New Regional and Local Proposed Control Measures**  
**Sacramento Nonattainment Area**

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO <sub>x</sub>
<b>Regional Non-regulatory Measures</b>		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	-	-
Urban Forest Development Program	0 - 0.2	-
<b>Total Regional Non-regulatory Measures</b>	<b>0.1</b>	<b>0.9</b>
<b>Local Regulatory Measures</b>		
Indirect Source Rule - Construction	-	≤0.1
Indirect Source Rule - Operational	0-<0.1	0-0.1
Architectural Coating	1.5	-
Automotive Refinishing	0.2	-
Degreasing/Solvent Cleaning	1.4	-
Graphic Arts	na	-
Miscellaneous Metal Parts and Products	<0.1	-
Natural Gas Production and Processing	0.1	-
Asphalt Concrete	-	0.1
Boilers, Steam Generator, and Process Heaters	-	0.2
IC Engines	-	0.1
Large Water Heaters and Small Boilers	-	0.9
<b>Total Local Regulatory Measures</b>	<b>3.2</b>	<b>1.43</b>
<b>Total Reductions*</b>	<b>3.4</b>	<b>2.76</b>

Note: Numbers are truncated to one decimal place. na = not available

\*Total reductions are summed from untruncated values. See summary table in Appendix C – Proposed Control Measures.

The following Table 14-2 contains a summary of SACOG transportation control measures (TCMs) that are included in the Sacramento region's federal 8-hour ozone plan. The TCMs include new and continuing projects and funding programs.

**Summary Table of Emission Reductions by Control Measure**

Measure Name	Emission Reductions (TPD)	
	2018	
	VOC	NO <sub>x</sub>
<b><u>Non-regulatory Measures</u></b>		
Regional Mobile Incentive Program – On-road	0.060	0.910
Regional Mobile Incentive Program – Off-road	0.005	0.013
Spare The Air Program	0.059	0.046
SACOG Transportation Control Measures	tbd	tbd
Urban Forest Development Program	0 - 0.18	-
<b>Total Non-regulatory Measures</b>	<b>0.12</b>	<b>0.97</b>
<b><u>Regulatory Measures</u></b>		
Indirect Source Rule – Construction Mitigation	-	0.136046
Indirect Source Rule – Operational ISR	0-0.04	0-0.13
<b>Stationary and Area-wide Source Measures</b>		
<b>Architectural Coating</b>		
SMAQMD-442	0.913	-
EDCAQMD-215	0.186	-
FRAQMD-3.15	0.004	-
PCAPCD-218	0.201	-
YSAQMD-2.14	0.214	-
<b>Total Architectural Coating</b>	<b>1.52</b>	
<b>Automotive Refinishing</b>		
SMAQMD-459	0.113	-
FRAQMD-3.19	0.001	-
PCAPCD-234	0.045	-
YSAQMD-2.26	0.058	-
<b>Total Automotive Refinishing</b>	<b>0.22</b>	
<b>Degreasing/Solvent Cleaning</b>		
SMAQMD-454/466	0.593	-
EDCAQMD-225/235	0.076	-
FRAQMD-3.14	0.001	-
YSAQMD-2.24/2.31	0.762	-
<b>Total Degreasing/Solvent Cleaning</b>	<b>1.43</b>	
<b>Graphic Arts</b>		
YSAQMD-2.29	---	-
<b>Total Graphic Arts</b>	---	
<b>Miscellaneous Metal Parts and Products</b>		
EDCAQMD-246	0.002	-
PCAPCD-CM3	0.014	-

<b>Total Miscellaneous Metal Parts and Products</b>	<b>0.02</b>	
<b>Natural Gas Production and Processing</b>		
SMAQMD-461	0.116	-
<b>Total Natural Gas Production and Processing</b>	<b>0.12</b>	-
<b>Asphalt Concrete</b>		
SMAQMD-471	-	0.132
PCAPCD-CM1	-	0.036
<b>Total Asphalt Concrete</b>		<b>0.17</b>
<b>Boilers, Steam Gen. and Process Heaters</b>		
YSAQMD-2.27	-	0.288
<b>Total Boilers, Steam Gen. and Process Heaters</b>		<b>0.29</b>
<b>IC Engines</b>		
SMAQMD-412	-	0.013
FRAQMD-3.22	-	0.004
YSAQMD-2.32	-	0.118
<b>Total IC Engines</b>		<b>0.14</b>
<b>Large Water Heaters and Small Boilers</b>		
SMAQMD-414	-	0.708
EDCAQMD-239	-	0.003
FRAQMD-3.23	-	0.000
PCAPCD-CM2	-	0.030
YSAQMD-2.37	-	0.240
<b>Total Large Water Heaters and Small Boilers</b>		<b>0.98</b>
<b>Total Stationary and Area Source Measures</b>	<b>3.30</b>	<b>1.58</b>
<b>Total Regulatory Measures</b>	<b>3.30</b>	<b>1.7263</b>
<b>Total Reductions</b>	<b>3.42</b>	<b>2.6960</b>

tbd = to be determined

## Emission Inventory

The SFNA planning emission inventory is presented below for the category associated with construction equipment emissions of NOx. The emissions already account for California Air Resources Board State Implementation Plan measures.

District	EIC Code	EIC Description	NOx Emission Inventory (tpd)
			2018
SMAQMD	860-887	<del>CONSTRUCTION AND MINING EQUIPMENT</del>	<del>4.6084</del>
PCAPCD	860-887	CONSTRUCTION AND MINING EQUIPMENT	0.9172
FRAQMD	860-887	CONSTRUCTION AND MINING EQUIPMENT	0.0722
<b>TOTAL</b>			<del>5.5975</del> <b>0.9894</b>

## Emission Reductions

Total NOx emissions from all phases of construction and all other associated emissions will be estimated using URBEMIS 2007, version 9.2 or another construction emission estimation model that the Air Pollution Control Officer deems appropriate. Emission reductions for this measure have been calculated assuming that new construction projects will be required to reduce total construction-related emissions of NOx by 20% below the statewide averages (as required by SJVUAPCD Rule 9510). Applicants will be able to reduce these emissions through either onsite or offsite mitigation. Onsite mitigation will consist of applicants replacing or retrofitting older, higher-emitting construction equipment. Offsite mitigation will allow applicants to pay a fee based on the cost effectiveness of the Carl Moyer, SECAT, or other approved program. The District will secure mitigation for those applicants by funding emission reduction projects elsewhere, following the guidelines of the approved funding program.

Construction projects will be required to comply with this rule if they equal or exceed any of the following thresholds (based on SJVUAPCD Rule 9510):

- 50 residential units;
- 2,000 sq. feet of commercial space;
- 25,000 sq. feet of light industrial space;
- 100,000 sq. feet of heavy industrial space;
- 20,000 sq. feet of medical office space;
- 39,000 sq. feet of general office space;
- 9,000 sq. feet of educational space;
- 10,000 sq. feet of government space;
- 20,000 sq. feet of recreational space; or
- 9,000 sq. feet of space not identified above

In order to estimate potential future emission reductions, District staff used the State Water Resources Control Board storm water permit data and the default assumptions built into the construction emissions model URBEMIS. The storm water data provided the acres and type (residential, commercial, industrial) for all projects occurring in the SFNA over two acres. In order to condense this data, projects were categorized by their size and averaged over a three-year period (2004 through 2006). Because the storm

water database does not give project specifics beyond the type and size, all projects labeled residential were assumed to be entirely residential and other projects not labeled residential were assumed to be entirely commercial.

Defaults from URBEMIS including average residential and commercial density, the type and amount of construction equipment used for different sized projects, and the construction phase timelines were used to estimate calendar year 2008 emissions for the projects obtained from the storm water database. The NOx emissions from all applicable project groups were totaled and reductions were assumed to be 20% of this total with an 80% compliance rate. The reductions were compared to the 2008 SFNA emission inventory to derive a percent reduction that could be applied to the 2018 inventory.

Annual NOx emission reductions are summarized below for the districts planning to adopt this control measure in the SFNA.

District	2018 (tpd)
SMAQMD	0.0905
PCAPCD	0.0462
<b>TOTAL</b>	<b>0.13670462</b>

There are no emission reductions estimated for the portion of FRAQMD in the SFNA because there were no new land use projects shown for 2004 to 2006 in the California storm water database for this area. It is assumed that new construction will occur and, therefore this control measure will achieve ozone precursor emission reductions from those future projects in the FRAQMD.

**SMAQMD**

Adoption year: 2010

Implementation year: 2014

**PCAPCD**

Adoption year: 2013

Implementation year: 2014

**FRAQMD**

Adoption year: 2013

Implementation year: 2014

**Cost Effectiveness**

It is anticipated that developers will not choose to perform onsite mitigation when the cost for doing so would exceed the cost of paying mitigation fees. Therefore, the upper bound of cost effectiveness for this measure is based on the mitigation fees. The fees have been estimated based on the current Carl Moyer program cost effectiveness of \$16,000 per ton of NOx reduced.

### **Authority**

The districts are authorized to adopt and implement regulations to reduce or mitigate emissions from indirect and areawide sources of air pollution by Health and Safety Code Section 40716. In addition, SMAQMD is specifically authorized to adopt regulations to limit or mitigate the impact on air quality of indirect or areawide sources by Health and Safety Code Section 41013.

### **Implementation**

This control measure will be implemented by ~~SMAQMD, PCAPCD,~~ and FRAQMD.

### **References**

CARB Ozone SIP Planning Inventory, Version 1.06, Sacramento NAA (RF#980), February 28, 2007

SJVUAPCD "Rule 9510, Indirect Source Review (ISR)." Adopted December 15, 2005

SJVUAPCD "Final Draft Staff Report – Rule 9510, Indirect Source Review (ISR), Rule 3180, Administrative Fees for Indirect Source Review." December 15, 2005

State Water Resources Control Board "[Statewide Construction Storm Water Database Active Notice of Intents \(NOIs\)](http://www.swrcb.ca.gov/stormwtr/databases.html)." <http://www.swrcb.ca.gov/stormwtr/databases.html>.

URBEMIS 2007, Version 9.2, July 2007.

<b>Table H-2 SMAQMD Stationary/Area Source Control Measures Considered</b>				
<b>Measure No.</b>	<b>Title</b>	<b>Current Requirements</b>	<b>Opportunity for Strengthening</b>	<b>Conclusion</b>
	Production of Wood/paper products	None	Require VOC limits for manufacturing wood/paper products.	Not Recommended - No sources
	Industrial Wastewater	None	Require VOC limits and control system from wastewater system	Not Recommended - Evaluated for Attainment Advancement
	Wastewater at Sewage Treatment Plants	None	Require VOC limits and control system for wastewater sewage treatment plant	Not Recommended - Evaluated for Attainment Advancement
201	Lower permit exemption	Permit exemptions and thresholds	Lower permit threshold to bring more sources and equipment under permit program	Not Recommended - Evaluated for Attainment Advancement
	Green Waste Composting	None	Establish VOC limits similar to the rule adopted by SJVUAPCD	Not Recommended - Evaluated for Attainment Advancement
	Co-Composting and Biosolids	None	Establish VOC reducing requirements equivalent to SJVUAPCD/SCAQMD	Not Recommended - Evaluated for Attainment Advancement
	Glass Furnaces	None	Establish NOx limits for glass furnaces	Not Recommended - No sources
	Central Furnaces	None	Establish NOx limits for central furnaces	Not Recommended - Evaluated for Attainment Advancement
IS-1	ISR Construction	None	Implement construction mitigation rule to reduce off-road construction NOx emissions associated with new land use development	<del>Control Measure</del> <del>Not recommended</del> - Evaluated for Attainment Advancement
IS-1	ISR Construction	None	Implement construction mitigation rule to reduce off-road construction VOC emissions associated with new land use development	Not Recommended - Evaluated for Attainment Advancement
IS-2	ISR Operational	None	Mitigate increased emissions associated with new land use/development projects	Control Measure
501	Agricultural Burning/Open Burning	Conditions under which burning must be conducted, when allowed, to minimize smoke; Burning is not allowed on days declared No-Burn Day	Prohibit burning of waste	Not Recommended - Evaluated for Attainment Advancement

**Attachment C**

**Staff Report**

**SACRAMENTO METROPOLITAN  
AIR QUALITY MANAGEMENT DISTRICT**

**STAFF REPORT**

**REVISION TO THE 2009 SACRAMENTO REGIONAL 8-HOUR OZONE ATTAINMENT AND  
REASONABLE FURTHER PROGRESS PLAN:  
REMOVAL OF CONTROL MEASURE  
IS-1, CONSTRUCTION MITIGATION**

**July 27, 2011**

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## **INTRODUCTION**

The Sacramento Metropolitan Air Quality Management District (SMAQMD) included the indirect source review (ISR) emissions control measure IS-1 in the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Plan.)<sup>1</sup> This measure requires mitigating reductions for construction related emissions of new land use development projects. The concepts would implement a program similar to that of the District's current California Environmental Quality Act (CEQA) review program and are modeled in part after San Joaquin Valley Rule 9510. Since the approval of the Plan by the districts of the Sacramento Federal Nonattainment Area (SFNA) and the California Air Resources Board (CARB), several factors have led Staff to recommend that control measure IS-1 be removed from the Plan and re-evaluated at a later time. These factors include:

- A more consistent implementation by lead agencies of the District's recommended CEQA mitigation measures.
- The recent impact of the economic downturn on Sacramento County and the construction and development industry.
- Changes in the off-road emissions inventories, which contributes to a decrease in the estimated emissions reduction potential from control measure IS-1.
- Fees associated with indirect source rules may be subject to Proposition 26 which would require a two-thirds vote from the public to be established.

Staff has evaluated the removal of control measure IS-1 from the Plan and has concluded that the removal will not change or interfere with the attainment demonstration or reasonable further progress (RFP) demonstration, and does not change the reasonably available control measure (RACM) and contingency measure conclusions.

This staff report will review the anticipated measure and public process to date, review background information regarding the model construction mitigation concepts, and the legal requirements associated with this measure and this action. The report will discuss the reasons for removing this measure from the Plan now, and an anticipated schedule for re-consideration.

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## **BACKGROUND**

### **Plan Overview**

In January and February of 2009, the Governing Boards of the SFNA districts approved the Plan. The Plan includes the information and analyses to fulfill the federal Clean Air Act (CAA) requirements for demonstrating reasonable further progress and attainment of the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS) in the Sacramento region. In addition, the Plan establishes an updated emissions inventory, provides photochemical modeling results, proposes adoption of control measures to meet CAA RACM requirements, and sets new motor vehicle emission budgets for transportation conformity purposes. The Plan was approved by CARB on March 26, 2009 and submitted to the U.S. Environmental Protection Agency (EPA) on April 17,

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<sup>1</sup> "Sacramento Regional 8-hour Ozone Attainment and Reasonable Further Progress Plan", EDCAQMD, FRAQMD, PCAPCD, SMAQMD, YSAQMD, March 26, 2009

2009. The Plan has not yet been approved by the EPA. The Plan includes the following elements:

- Attainment demonstration
- Reasonable further progress demonstration
- Reasonably available control measures
- Emissions inventory
- Motor vehicle emissions budget
- General conformity budgets
- Photochemical modeling
- Contingency measures

The control measure IS-1 and its associated emissions reductions were not included in or relevant in any way to the following Plan elements:

- Emissions inventory<sup>2</sup>
- Motor vehicle emissions budgets<sup>3</sup>
- General conformity<sup>4</sup>
- Photochemical modeling<sup>5</sup>

### **Construction Mitigation Rule Control Measure IS-1**

Control measure IS-1, Construction Mitigation Rule, includes a commitment from the District and two other districts in the Sacramento region to adopt a rule to mitigate emissions generated by equipment used during the construction phase of a land use project. The requirements considered for the rule are based on the District's CEQA mitigation program and the construction requirements of San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) Rule 9510, Indirect Source Review<sup>6</sup>. Both require projects to mitigate their NOx emissions by an amount equal to 20% of the statewide average emissions either by using cleaner construction equipment, by modifying the construction equipment (through retrofits, replacements, or post-combustion controls), or by paying a fee that will be used by the district to obtain emission reductions.

Control measure IS-1 anticipated providing project proponents with the option to use on-site measures, or to pay a fee which the District would use to secure mitigation from off-site emission reduction projects. Off-site mitigation fees would be calculated based on the cost of off-site mitigation projects and the amount of mitigating emission reductions required.

The Plan estimate<sup>7</sup> of the emission reductions from IS-1, construction mitigation rule, is 0.09 tons per day of NOx in 2018.

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<sup>2</sup> Ibid. Section 5.5 states that the emissions inventory forecasts did not include benefits from measures that had not been adopted by December 31, 2006.

<sup>3</sup> Ibid. Appendix F only includes regional reductions from on-road mobile incentive strategy. Appendix C control measure descriptions show that there are no on-road emissions reductions from IS-1.

<sup>4</sup> Ibid. The general conformity inventory listed in Table 12-1 only includes aircraft and ground support emissions that would not be impacted by IS-1.

<sup>5</sup> Ibid. Section 6.3 of Appendix B states that the forecasted emissions used in the modeling accounts for the effects of growth and the effects of adopted emission control rules.

<sup>6</sup> SJVUAPCD, "Rule 9510, Indirect Source Review (ISR)" and "Final Draft Staff Report – Rule 9510, Indirect Source Review (ISR), Rule 3180, Administrative Fees for Indirect Source Review." Adopted December 15, 2005.

<sup>7</sup> "Sacramento Regional 8-hour Ozone Attainment and Reasonable Further Progress Plan", EDCAQMD, FRAQMD, PCAPCD, SMAQMD, YSAQMD, March 26, 2009 Appendix C pgs C58-C67

In 2010, Staff began development of a concept paper for Rule 1052, Construction Mitigation, to implement control measure IS-1. Staff held scoping meetings with local jurisdictions and industry on May 4, 2010 and on July 20, 2010, respectively. After considering comments and suggestions from the scoping meetings, Staff held a public workshop on August 3, 2010. On August 26, 2010, the SMAQMD Board of Directors considered the IS-1 (Rule 1052 – Construction Mitigation) concept paper<sup>8</sup>. At the meeting, representatives from Environmental Defense and Breathe California testified in support of Rule 1052. A representative from the North State Building Industry Association testified about concerns regarding the administrative fees.

### **SJVUAPCD Rule 9510**

Control measure IS-1 is modeled, in part, after the construction portion of SJVUAPCD Rule 9510, Indirect Source Review (ISR). Currently, Rule 9510 (adopted 12/15/05) is the only air district indirect source rule to address emissions from construction equipment. The SJVUAPCD rule requires projects to mitigate their construction equipment's NOx emissions by an amount equal to 20% of the statewide average emission rates. Project proponents may meet these goals by using cleaner construction equipment, by modifying the construction equipment (through retrofits, replacements, or post-combustion controls), or by paying a fee that will be used by the district to obtain emission reductions.

Recently, the U.S. Environmental Protection Agency (EPA) reviewed SJVAPCD Rule 9510 and in May 2010, released a technical support document (TSD) on the rule<sup>9</sup>. The TSD focused on two approvability issues with Rule 9510. First, the EPA felt the rule needed to better outline how mitigation measures would be enforced and verified. Second, the district needed to demonstrate to the EPA how the off-site mitigation program would follow the EPA's Economic Incentive Programs guidelines. This would require the off-site mitigation program to include criteria, policies, and procedures to ensure that the reductions are surplus (including identifying potential source categories for the reductions) with publicly accessible and transparent tracking and evaluation of the program on a real-time basis. EPA staff recommended approval of Rule 9510 into the State Implementation Plan on the condition that the emission reductions claimed by the rule not be credited towards any attainment or rate of reasonable further progress demonstration because it does not fully comply with the EPA's approvability criteria and policies.

### **SMAQMD CEQA Review Program**

CEQA requires that public agencies consider and disclose the environmental effects of their decisions to the public and governmental decision-makers. Further, it mandates that agencies implement feasible measures or alternatives that would mitigate significant adverse effects on the environment. Typically, a developer will prepare an Environmental Impact Report, Negative Declaration, or Mitigated Negative Declaration that identifies any significant environmental impacts of the project and indicates the manner in which significant impacts will be mitigated or avoided, if required.

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<sup>8</sup> "Concept Paper – Rule 1052 Construction Mitigation" SMAQMD June 26, 2010  
<http://www.airquality.org/bod/2010/AugRule1052ConceptPaper.pdf>

<sup>9</sup> Wong. "Technical Support Document for EPA's Rulemaking for the California State Implementation Plan Regarding San Joaquin Valley Unified Air Pollution Control District Rule 9510, Indirect Source Review (ISR)" May 10, 2010.

In the mid-1990's, the District first established air quality thresholds of significance. The District staff also established guidelines to help project proponents mitigate significant air quality impacts. This information has been revised periodically since. District staff reviews environmental documents and provides comments to the lead agency (city, county, state, or federal government) on the adequacy of the air quality assessment. For each project, Staff examines the potential air quality impacts during construction and throughout the operational life.

The District has established an emission threshold of 85 pounds of NOx per day for construction projects as a significant air quality impact. For those projects with a significant air quality impact, the District recommends that on-site mitigation be required to reduce construction-related emissions of NOx by 20% and PM10 by 45%. If a project uses mitigation but is still over the significance threshold, then fees must be paid, if required by the lead agency, to offset those excess emissions through off-site mitigation.

As proposed, control measure IS-1 requires standards and reductions very similar to the District's CEQA mitigation guidelines. An objective of the control measure was to allow the District to require, implement, and enforce air quality mitigation directly, rather than rely on the lead agencies mitigation requirements.

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## LEGAL MANDATES

### Clean Air Act Plan Requirements

The District is part of the SFNA, which is designated as a "severe" nonattainment area for the federal 8-hour ozone standard. The federal CAA requires nonattainment areas to prepare and submit to EPA an 8-hour ozone plan that meets specific requirements, including:

- Attainment demonstration. Sections 172(c)(1) and 182(c)(2)(A) of the CAA require a demonstration that the plan will provide for attainment of the national ambient air quality standard as expeditiously as practicable by the applicable attainment date. The demonstration must be based on photochemical grid modeling. The attainment date for nonattainment areas classified as "severe" is 2018.
- Reasonable Further Progress (RFP) demonstration. Sections 182(c)(2)(B) and (C) of the CAA require a demonstration that the plan will result in VOC emissions (and/or NOx emissions) reductions from the baseline emissions of an average of at least three percent each year.
- Reasonably Available Control Measures (RACM). Section 172(c)(1) of the CAA requires that the plan provide for the implementation of all reasonably available control measures as expeditiously as practicable. EPA's RACM policy<sup>10,11</sup> indicates that areas should consider all candidate measures that are potentially reasonably available. Areas should consider all reasonably available measures for implementation in light of local circumstances. However, areas need only to adopt measures if they are both economically and

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<sup>10</sup> "Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard – Phase 2" (Federal Register, November 29, 2005, p. 71659-71661).

<sup>11</sup> "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas" (EPA, December 1999).

technologically feasible and cumulatively will advance the attainment date (by one year or more) or are necessary for RFP.

- Contingency Measures. Sections 172(c)(9) and 182(c)(9) of the CAA requires plans to include contingency measures which will reduce emissions in the event an area fails to meet Reasonable Further Progress (RFP) milestones or fails to attain by its attainment date.

In February 2009, the districts of the SFNA adopted a plan<sup>12</sup> to achieve the 1997 federal 8-hour ozone standard by 2018. The plan meets the requirements of the CAA, including an attainment demonstration, RFP, and includes control measures necessary to meet RACM requirements.

### **Removal of IS-1 from the Plan**

Section 110(l) of the CAA requires that each revision to a State Implementation Plan be adopted after reasonable notice and public hearing. EPA cannot approve the revision if it would interfere with attainment, reasonable further progress, or any other applicable CAA requirement. Section 110(a)(5)(A)(i) specifically prohibits EPA from requiring as a condition of approval that attainment plans include indirect source review programs.

The 2009 plan includes a commitments for the District to adopt measures to control emissions of NOx from indirect sources due to construction (measure IS-1) activities. The emissions reduction estimate in the plan for IS-1 is 0.09 tons per day of NOx.

Staff is proposing to revise the State Implementation Plan to remove control measure IS-1 from the 2009 plan. In addition, the other air districts in the Sacramento Region with IS-1 commitments may request removal of their commitments. Even if all districts remove this measure, the revision complies with Clean Air Act Section 110 (l) requirements because:

- The SIP revision will be adopted after 30 day notice and public hearing;
- The SIP revision does not change the attainment demonstration or interfere with attainment or RFP demonstration;
- The SIP revision does not change the RACM conclusions that control measures that are not included in the Plan collectively would not advance the attainment date for the Sacramento region because of the insignificant amount of emissions reductions that they may potentially generate, even if all three air districts remove their IS-1 commitments, and these control measures are not required for RFP;
- The SIP revision has no impact on the contingency measure analysis or our ability to meet the Attainment Demonstration Contingency requirement; and
- The SIP revision does not interfere with any other applicable CAA requirement.

### **Attainment demonstration**

The attainment demonstration<sup>13</sup> established that a minimum emission reductions target of 12.5% reduction in NOx and 3.3% reduction in VOC is needed to meet the 1997 federal 8-hour ozone

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<sup>12</sup> Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (ECAQMD, FRAQMD, PCAPCD, SMAQMD, and YSAQMD, March 26, 2009).

<sup>13</sup> Ibid. Table 8-1, Line L, page 8-5

standard. The attainment demonstration showed that collectively all measures adopted in 2008 achieved this minimum emissions reduction target<sup>14</sup>. The Plan stated<sup>15</sup> that the new control measures are included to meet CAA requirements for RACM. The construction mitigation rule not adopted in 2008 and not relied on to demonstrate attainment. Therefore, the measure can be removed from the Plan for any or all three districts without changing the attainment demonstration or interfering with attainment.

### **Reasonable Further Progress (RFP)**

The RFP demonstration in the Plan shows the SFNA achieves the required 3% emission reduction for milestone years 2011, 2014, 2017, and 2018 without relying on NO<sub>x</sub> and VOC emissions reductions from new federal, state, regional or local control measures<sup>16</sup>. Therefore, revising the Plan to remove the commitment to adopt control measure IS-1 in any or all three districts would not affect the RFP demonstration.

### **Reasonably Available Control Measures (RACM)**

Although new control measures adopted after 2008 were not required to demonstrate attainment or RFP, they were required to satisfy the RACM requirement<sup>17</sup>. To be conservative, Staff analyzed whether removing the total potential emissions reductions from control measure IS-1 in all three districts (up to 0.1 tpd NO<sub>x</sub>) changed the RACM conclusions. Staff determined that IS-1 and all other available control measures that are not included in the Plan, collectively would not advance the attainment date or contribute to RFP for the Sacramento region because of the insignificant amount of emissions reductions that they may potentially generate. Therefore, the Plan may be revised to remove the IS-1 commitment for any or all three districts without changing the conclusion that the Plan meets RACM requirements.

### **Contingency Measures**

Sections 172(c)(9) and 182 (c)(9) require plans to include contingency measures which will reduce emissions in the event an area fails to meet Reasonable Further Progress (RFP) milestones or fails to attain by its attainment date. Federal guidance requires that sufficient contingency measures be identified in the plan to provide for a 3% emission reduction beyond what is needed for the attainment demonstration<sup>18</sup>. The demonstration that the 3% contingency measure requirement was met and did not include reductions associated with IS-1. As a result, removal of this measure has no impact on the contingency measure analysis or our ability to meet the Attainment Demonstration Contingency requirement.

### **Upcoming Ozone Standard Revision**

In March 2008, EPA set a new 8-hour ozone standard of 0.075 parts per million (ppm). This

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<sup>14</sup> Ibid. Table 8-1, Line N

<sup>15</sup> Ibid. page 8-2

<sup>16</sup> Ibid, Section 13.5, page 13-4, and Table 13-1, Lines 4 and 13 page 13-5.

<sup>17</sup> CAA Section 172(c)(1) and Section 181(a)(1), and 40 CFR 51.912(d)

<sup>18</sup> "General Preamble for Implementation of Title 1 of the Clean Air Act Amendments of 1990" (57 FR 13498, April 16, 1992) and SMAQMD 2009, Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, Sacramento Metropolitan Air Quality Management District, (March 26, 2009, Section 7-21, p7-32).

standard is currently under reconsideration, and EPA is proposing to revise the standard in the range of 0.060 to 0.070 ppm (75 FR 2938, January 19, 2010). EPA's current timeline is to finalize the new standard by July 29, 2011 and complete nonattainment area designations by July 29, 2012. If the EPA meets these deadlines then the deadline for submitting plans to EPA for attaining the new standard will be in mid-2014.

The District will consider potential measures to achieve the revised 8-hour ozone standard. The construction mitigation control measure will be re-evaluated at that time.

### **Proposition 26**

In November 2010, California voters passed Proposition 26, which requires that certain state and local fees be approved by two-thirds vote. The Proposition 26 requirements may apply to the mitigation fees that were proposed in control measure IS-1. If Proposition 26 applies then the mitigation fee would need to be approved by two-thirds of the voters in Sacramento County. The proposed control measure only anticipates very small emission reductions, a total of 0.09 tons/day of NOx, and there is no guarantee that two-thirds of the voters would approve the fee.

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### **SUMMARY OF CHANGES**

Staff is proposing to amend the 2009 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan by removing control measure IS-1. The amendments will include all related changes to the attainment demonstration and RACM analysis. These changes to the Plan are in Chapters 1, 7, and 14, and its Appendices C and H. To clearly show the changes being made deleted language is shown in strikeout format. The other districts in the SFNA are also proposing to remove their IS-1 commitments from the Plan.

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### **REASONS FOR REMOVAL**

There are three key reasons to remove control measure IS-1 from the Plan at this time.

1. **Uncertainties about the necessity** - There are uncertainties about the necessity of the construction mitigation rule at this time. Lead agencies are currently implementing similar mitigation requirements under CEQA. Also, information recently developed by CARB indicate that emissions from off-road equipment is substantially lower than previously estimated, reducing the potential benefits from IS-1.
2. **Potential cost impacts** – Implementing the construction mitigation rule would require additional staff resources and training. Proposition 26 may impact the District's ability to recover the increased costs by fees on project proponents. If new fees could be assessed, those fees would add burdens to an already struggling construction and building industry in the current difficult economic climate.
3. **Potential emissions reductions** – Recent changes in emissions estimates from construction equipment use are lower than previous estimates. Part of this change in emissions estimates is due to recent economic downturn. It is uncertain if or when construction and construction related emissions will return to prior levels. In addition, the District's CEQA mitigation program has been increasingly implemented by lead agencies (see discussion below). These changes also decrease the opportunities for and emissions reductions benefits from the construction mitigation rule. Finally, as noted in the earlier

discussions of the EPA's TSD on the SJVUAPCD Rule 9510, EPA recommended that emissions reductions from these rules not be creditable for attainment or progress goals.

Further evaluation of these issues, discussed in more detail below, cannot be completed in time to meet the adoption deadline established in the plan and suggest that the measure, as described in the Plan, may not be necessary, may be more costly or may provide fewer emissions reductions towards attainment or progress goals than previously estimated.

### **Uncertainties about the Necessity of Control Measure IS-1**

Duplication of CEQA Mitigation Program: The District's CEQA mitigation program has generally been effective as a mechanism for achieving emission reductions. However, the various lead agencies historically inconsistently required and enforced mitigation measures. As proposed, the control measure IS-1 would require standards and reductions very similar to the District's CEQA mitigation guidelines. An objective of the control measure was to allow the District to require, implement, and enforce air quality mitigation.

District land use CEQA review staff has noted that lead agencies increasingly require District recommended CEQA mitigation strategies. Although CalTrans still does not implement the District's recommended emissions mitigation for projects where they are the lead agency; there have only been two projects with a significant air quality impact where this occurred.<sup>19</sup>

In-Use Off-road Regulation: The construction equipment that would be regulated by IS-1 are also subject to CARB's *Regulation for In-Use Off-Road Diesel Vehicles*<sup>20</sup> originally adopted on July 26, 2007 and revised on December 16, 2010. This CARB regulation established fleet average emission rate targets for PM10 and NOx for all off-road vehicles operating in the state. The targets decline over time. The regulation requires large and medium fleets to meet the fleet average emission rate targets for NOx or to turn over a certain percent of their horsepower. Turnover means repowering with a cleaner engine, retiring a vehicle, replacing a vehicle with a new or used lower emitting vehicle, or designating a dirty vehicle as a low-use vehicle. If retrofits that reduce NOx emissions become available, they may be used in lieu of turnover as long as they achieve emissions reduction equivalent to the required percent turnover. Reductions are required to occur between 2014 and 2023. In making the December 2010 changes CARB stated;

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<sup>19</sup> Letter from Jody Lonergan, Caltrans District 3 Director, to Norm Covell, SMAQMD Air Pollution Control Officer et al., June 14, 2002.

<sup>20</sup> California Code of Regulations Title 13, Section 2449 et seq.

*“Since the adoption of the off-road and LSI [Large Spark Ignited] fleet regulations, a number of events have occurred which have presented an opportunity for CARB to reevaluate these regulations. First, a global recession has substantially reduced the activity (and emissions) of many off-road fleets. At the same time, the recession has substantially reduced the near-term ability of fleets to invest in the clean vehicles and equipment needed to comply with the regulations. These first two factors are especially true for California’s construction industry. Lastly, CARB staff has undertaken a thorough review and update to our estimates of the emissions from off-road diesel vehicles, and staff has determined that emissions are substantially lower than previously estimated.”<sup>21</sup>*

In 2010 CARB released new emissions estimates showing that between 2005 and 2010, construction emissions dropped by more than 50 percent. The following table shows the change in the emissions inventory from the 2007 estimates for construction and mining equipment that is subject to the CARB In-Use Off-Road Diesel Vehicle Regulation. This emissions change suggests that the benefits from IS-1 may have been overestimated and that additional emissions reductions from IS-1 may not be necessary. These emissions changes will be reflected in the next ozone plan evaluations and help staff determine whether ISR rules are needed to meet the upcoming revised federal ozone air quality standards.

**Comparison of 2007 and Revised Construction and Mining<sup>22</sup>  
 Emission Estimates For Sacramento County**

Calendar Year	2007 Inventory (tons/day) <sup>23</sup>	Revised Inventory (tons/day) <sup>24</sup>
	<b>NOx</b>	<b>NOx</b>
<b>2009</b>	10.0	2.43
<b>2018</b>	4.61	2.07

**Potential cost impacts of the ISR control measures**

District costs: Implementation of control measure IS-1 would require new staff resources and training for project evaluation, monitoring, and enforcement. The control measure proposes to use project size thresholds equivalent to those used in SJVUAPCD Rule 9510. Using these thresholds would capture smaller projects than the District’s current CEQA significance thresholds.

Another additional cost is to secure off-site mitigation projects. Off-site programs could range from incentives for engine/vehicle turnover, fireplace inserts, or mechanisms to encourage mixed use, infill projects, or other smart growth strategies. As noted in the Background discussion of this report, EPA identified two approvability issues with SJVUAPCD Rule 9510 upon which our IS-1 concepts are based. The EPA demonstration regarding how the off-site mitigation program meets

<sup>21</sup> CARB, “Staff Report: Initial Statement of Reasons for Proposed Rulemaking. Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements.” December 16, 2010

<sup>22</sup> Only emission categories subject to the CARB In-Use Off-Road Diesel Vehicle Regulation

<sup>23</sup> CARB Ozone SIP Planning Inventory, Version 1.06, Sacramento NAA (Rf#980), February 28, 2007.

<sup>24</sup> CARB Off-Road Emissions Model, accessed March 3, 2011,

[http://www.arb.ca.gov/msprog/ordiesel/info\\_1085/off\\_road\\_emissions\\_inventory.mdb](http://www.arb.ca.gov/msprog/ordiesel/info_1085/off_road_emissions_inventory.mdb) with the special allocation worksheet developed by CARB to calculate emissions on the county level  
[http://www.arb.ca.gov/msprog/ordiesel/info\\_1085/spatial\\_allocation\\_based\\_on\\_population\\_trends\\_2008.xls](http://www.arb.ca.gov/msprog/ordiesel/info_1085/spatial_allocation_based_on_population_trends_2008.xls)

their EPA's Economic Incentive Programs guidelines will require staff to develop new criteria, policies, and procedures to ensure that the off-site mitigation project reductions are surplus (including identifying potential source categories for the reductions) with publicly accessible and transparent tracking and evaluation of the program on a real-time basis. The amount of staff costs to meet EPA guidelines is unknown at this time. Some of these costs may be avoided if IS-1 is not a SIP commitment.

The District cannot absorb these additional costs without passing them on to project proponents in the form of fees. Proposition 26 passed by the voters in 2010 requires public agencies to get approval from 2/3 of the electorate to establish certain new fees. The District may be subject to Proposition 26.

Developer costs: If the construction mitigation rule was adopted, project developers would incur additional costs from new District fees to recover the costs of administering the construction mitigation rule. Staff estimates that administrative fees could range between \$1,000 and \$2,000 per application. If a project chooses to pay an off-site mitigation fee, that fee depends on the actual cost of mitigation. An example of an emission reduction program that could be used as a source of off-site mitigation, the Carl Moyer program currently has a maximum cost of \$16,400 per ton of reduction. An administrative fee up to 15% of the off-site mitigation costs would also be required to secure the off-site emissions reductions. Although many projects could already be subject to off-site mitigation fees under a CEQA program, as noted previously, the construction mitigation rule would affect smaller projects than currently affected by the CEQA program and therefore, could require additional projects to pay off-site mitigation fees.

Economic downturn: The economic downturn has caused a loss of employment and revenue in the construction sector and other industries that would be affected by the implementation of control measure IS-1. This has reduced business activity and has strained the financial ability of industry to comply with regulations. The reduction in business activity has also resulted in reduced vehicle activity and emissions as noted in the earlier discussion of CARB's off-road emissions inventory changes.

The U.S. Department of Commerce lists housing starts or residential building permits issued as one of the top 12 economic indicators<sup>25</sup>. Housing starts and permits issued also indicate the strength of the building and construction industry. New single-family home permits issued in Sacramento County have decreased by 81% from 2006 to 2010<sup>26</sup>, an indicator of the severity with which the construction and building industry in Sacramento County has been struggling. Unemployment is another indicator of the economy's strength. As of December 2010, California has the second highest unemployment rate in the nation at 12.5%<sup>27</sup>. The Sacramento Metropolitan area also has an unemployment rate of 12.5% as of December 2010. Specifically in Sacramento County, employment in the construction industry has decreased by 41% (a loss of 18,600 employees) from 2005 to 2009<sup>28</sup>. These indicators suggest that the construction and building industry is currently less able to bear increased costs from a construction mitigation rule.

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<sup>25</sup> Economics and Statistics Administration, US Department of Commerce, Accessed April 2011, <http://esa.doc.gov/about-economic-indicators>

<sup>26</sup> Construction Industry Research Board, 2006, 2010 (cited by California Building Industry Association), <http://www.cbia.org/go/cbia/newsroom/housing-statistics/housing-starts/>

<sup>27</sup> Bureau of Labor Statistics, accessed January 2011, <http://www.bls.gov/lau/>

<sup>28</sup> Ibid, <http://www.bls.gov/cew/data.htm>

### **IS-1 Emission Reductions**

Due to the availability of more extensive data and the recent economic recession, CARB has revised the off-road diesel emissions inventory. This revision has caused a significant decrease in the estimated emissions from off-road equipment. The estimate for the 2018 construction and mining NOx inventory for Sacramento County has decreased by 55%. Using the revised off-road inventory, the NOx emissions reduction estimate for measure IS-1 in 2018 has decreased from 0.09 tpd to 0.03 tpd.

As noted in the Background discussion of this report, EPA identified two approvability issues with SJVUAPCD Rule 9510 upon which our ISR concepts are based. EPA approved Rule 9510 into the State Implementation Plan on the condition that the emission reductions claimed by the rule not be credited towards any attainment or rate of reasonable further progress demonstration because it does not fully comply with the EPA's approvability criteria and policies. Unless SJVUACPD or SMAQMD is successfully able to meet these EPA requirements, any ISR emissions reductions could not be used for attainment or progress purposes. Therefore, it is appropriate to remove them so the Plan more clearly represents which emissions reduction strategies may be used for meeting future attainment goals should shortfalls arise in strategies relied on for attainment or progress purposes.

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### **PUBLIC COMMENTS**

In 2010, Staff began development of a concept paper for Rule 1052, Construction Mitigation, to implement control measure IS-1. On August 26, 2010, the SMAQMD Board of Directors considered the IS-1 (Rule 1052 – Construction Mitigation) concept paper. Many members of the Board of Directors expressed concern whether the rule was necessary considering the current economic climate.

Staff held a public workshop to discuss the proposed Plan amendments on June 7, 2011. At that time, Staff was proposing to remove IS-2, Operational Indirect Source Review, from the Plan in addition to IS-1. The noticing for this workshop included:

- Email notices to:
  - interested and affected parties;
  - industry associations, developers, contractors, local jurisdictions, and other groups associated with land use development;
  - all persons who have requested to receive rulemaking notices.
- Hard copy notices to all those who have requested them.
- A notice published in the Sacramento Bee in the Our Region section.
- A notice posted on the District web site. The draft rule and staff report were made available for public review at that time.

Staff did not receive any comments or questions at the public workshop.

On June 20, 2011 Staff met with representatives from Environmental Defense and Breathe California, who were not able to attend the workshop. Environmental Defense opposed the removal of the ISR control measures from the Plan, expressing concerns that other districts (e.g. SCAQMD) have not proposed to remove their rule from their SIP and that other industries might use unfavorable economic indicators to justify their removal, therefore removing the ISR control

measures from a SIP would set a bad precedent. Staff changed the original proposal and will not recommend removing IS-2. The reason for this change in the recommendation include:

- IS-1 would substantially duplicate the existing successful CEQA program for mitigating construction emissions, while adding additional administrative costs. On the other hand, the CEQA program for mitigating operational emissions is not consistently implemented.
- Staff analyzed proposed concepts for a construction mitigation rule and received public input. The analysis shows that there has been a large decline in construction activity and the rule would increase costs for the construction industry. When the concepts for IS-1 were presented to the Board, the feedback was generally negative. On the other hand, Staff has not yet fully developed concepts for IS-2, the operational ISR measure, or evaluated the usability of the SACMET model for the operational ISR rule, or the effects and benefits from SB375.
- The construction mitigation rule must have other compliance options other than using cleaner construction equipment such as an off-site mitigation fee option<sup>29</sup>; otherwise, the rule would create a de facto emission standard for off-road engines, in violation of the federal pre-emption<sup>30</sup>. Additionally, Prop 26 may require a public vote with a two-thirds majority to establish fees for the off-site mitigation option. However, it may be possible to implement an operational ISR rule based on project design criteria without a mitigation fee.

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## ENVIRONMENTAL REVIEW AND COMPLIANCE

The Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Plan)<sup>31</sup> included new regional and local control measures as part of the Plan. The measures included IS-1 (Construction Mitigation Rule). All measures were evaluated under CEQA to determine whether or not they had the potential to generate adverse environmental impacts. A Final EIR was certified and the Plan was adopted by the SMAQMD Board of Directors on January 22, 2009. The Final Environmental Impact Report (FEIR)<sup>32</sup>, filed on January 23, 2009, concluded that the Plan would have no significant adverse environmental impacts.

The District evaluated the removal of control measure IS-1 under CEQA since removal of this measure is a discretionary action undertaken by a public agency<sup>33</sup>. As discussed in the Plan Overview section of this report, emission reductions associated with IS-1 were not included or considered in the emissions inventory, motor vehicle emission budgets, general conformity, or photochemical modeling elements of the Plan. In addition, as discussed in the Legal Mandates section, this project does not change or alter the Attainment Demonstration, the Reasonable

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<sup>29</sup> Wong, "Technical Support Document for EPA's Rulemaking for the California State Implementation Plan Regarding San Joaquin Valley Unified Air Pollution Control District Rule 9510, Indirect Source Review (ISR)". Page 11-12. May 10, 2010

<sup>30</sup> CAA Section 209

<sup>31</sup> Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, Sacramento Metropolitan Air Quality Management District, March 26, 2009.

<sup>32</sup> Final Environmental Impact Report, Sacramento Regional Non-Attainment Area 8-Hour Ozone Attainment and Reasonable Further Progress Plan, State Clearinghouse No. 2006102136, Sacramento Metropolitan Air Quality Management District, December 2008.

<sup>33</sup> Public Resources Code, State of California 21065(a)

Further Progress demonstration, the Reasonably Available Control Measures, or Contingency Measures conclusions in the Plan and the Plan EIR. Rather, as discussed in the Plan and FEIR, the additional measures provide a safety margin to insure attainment in the unlikely event that existing proposed measures were not fully adopted or implemented. In addition, the measures were identified as Reasonably Available Control Measures. The RACM analysis identified measures that were not included in the Plan, because when considered individually or collectively they did not advance attainment by a year. When the IS-1 control measure is considered in conjunction with those previously-excluded measures, the measures still do not advance attainment by a year and therefore is not required to be included in the Plan. The remaining Plan measures, after deletion of IS-1, still provide an adequate safety margin and still constitute RACM measures. Accordingly, the Plan and FEIR anticipated that all or some of the new measures would not be adopted as noted in the Attainment Demonstration for the Final EIR<sup>34</sup>. By definition, a margin of safety provides for contingencies, in this case, where the measure is not adopted or achieves fewer reductions than anticipated. Consequently, the possibility that the IS-1 measure would not be adopted was considered in the Final EIR. In addition, lead agencies of the Sacramento region are already implementing similar mitigation under CEQA. This project does not require any changes to the previous EIR and, therefore, the proposed revision to the Plan is exempt from CEQA pursuant to California Code of Regulations Title 14, Chapter 3, Section 15162(a)(1) - Subsequent EIRs and Negative Declarations.

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## CONCLUSION

The control measure IS-1 in the Plan would enforce and implement a program similar to that of the District's current CEQA review program. Since the approval of the Plan, several factors have led Staff to recommend removal of this control measure from the 2009 Plan and re-evaluate them at a later time.

The key reasons to remove this control measure from the plan at this time include:

1. **Uncertainties about the necessity:** The lead agencies of the Sacramento region are already implementing similar mitigation under CEQA. Also, CARB has revised the off-road inventory to show a decrease in previously estimated emissions by over 50%, which effects potential reductions from IS-1.
2. **Potential cost impacts:** Implementing a construction mitigation rule would impose additional costs on developers from additional administrative fees and smaller projects currently not required to use CEQA mitigation would have additional mitigation costs. Implementing the IS-1 control measure will require additional staff resources. Proposition 26 may limit the District's ability to recover costs due to the need for voter approval for new fees.
3. **Potential emission reductions:** The recession and other factors show decreases in emissions from the off-road construction industry. The reduction in the emissions inventory has reduced the estimated emissions reductions from this measure to 0.03 tpd of NOx. The EPA does not allow emission reduction from these rules to be creditable towards attainment or progress goals until EPA guidelines are met.

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<sup>34</sup> Final Environmental Impact Report, Sacramento Regional Non-Attainment Area 8-Hour Ozone Attainment and Reasonable Further Progress Plan, State Clearinghouse No. 2006102136, Sacramento Metropolitan Air Quality Management District, December 2008. Section 2.7 – Attainment Demonstration, Page 2-26.

The proposed revision to the State Implementation Plan to remove control measure IS-1 complies with the CAA because it does not change the attainment demonstration, interfere with attainment, or change the RFP demonstration, and the Plan revision does not change the RACM conclusions that control measures that are not included in the Plan collectively would not advance the attainment date for the Sacramento region because of the insignificant amount of emissions reductions that they may potentially generate, even if all three air districts remove their IS-1 commitments, and are not required for RFP.

Staff plans to re-consider control measure IS-1 as part of its process to evaluate potential strategies to meet future federal health based air quality standards. We anticipate that work to occur in 2014.

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**Attachment D**  
**Evidence of Public Notice**

**AFFIDAVIT**

Sacramento Metropolitan Air Quality Management District  
777 12<sup>th</sup> Street, Third Floor,  
Sacramento, CA 95814

**DECLARATION OF PUBLICATION**  
(C.C.P. 2015.5)

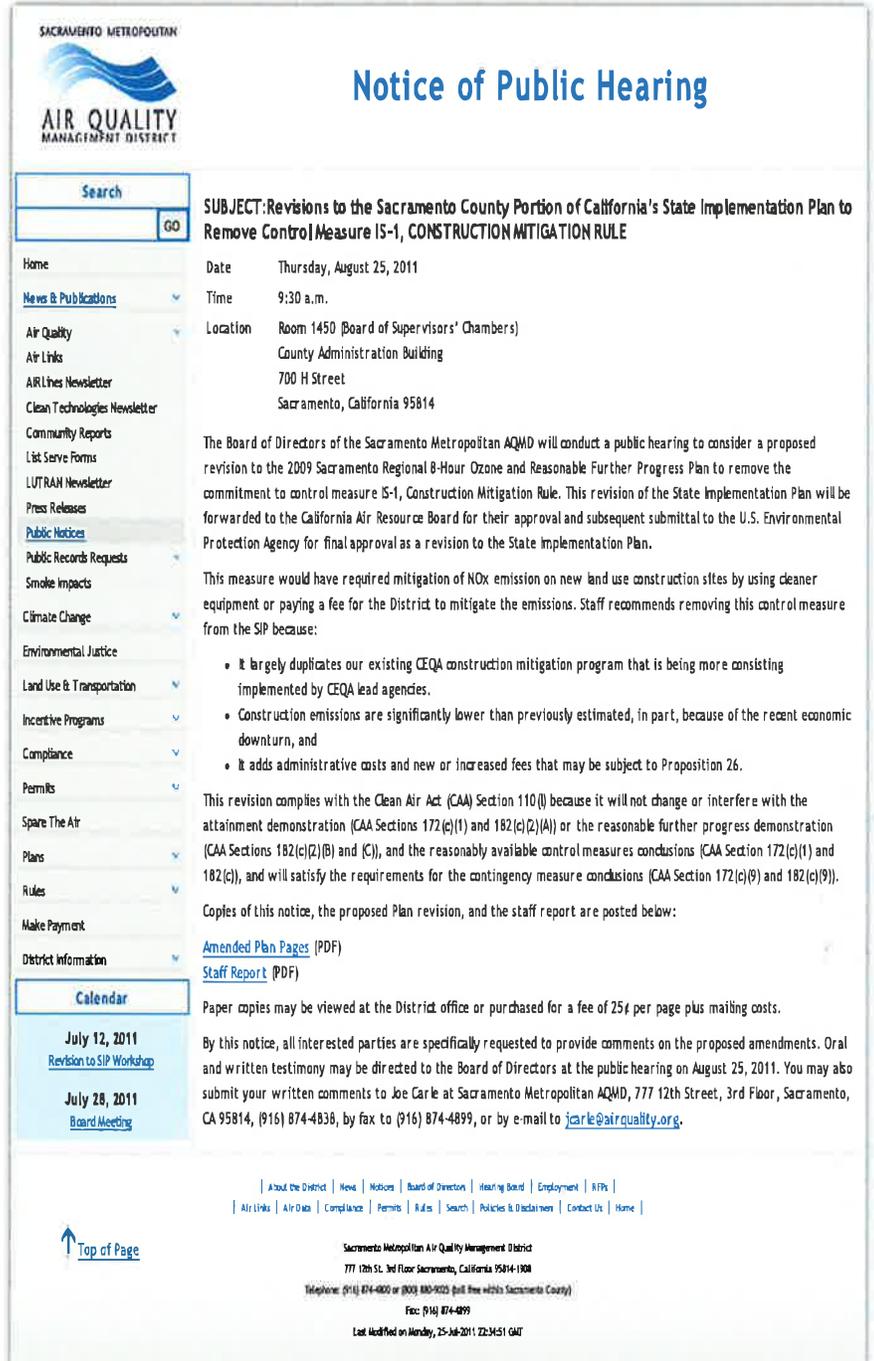
COUNTY OF SACRAMENTO,  
STATE OF CALIFORNIA

I am a resident of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the below entitled matter. I am an Information Technology Technician employed at the Sacramento Metropolitan Air Quality Management District.

The text below is a screen shot that was posted on the District's website, [www.airquality.org](http://www.airquality.org), on July 25, 2011.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct and that this declaration was executed at Sacramento, California on July 25, 2011.

  
Sheng Her  
Information Technology Technician



**SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT**

## Notice of Public Hearing

**SUBJECT: Revisions to the Sacramento County Portion of California's State Implementation Plan to Remove Control Measure IS-1, CONSTRUCTION MITIGATION RULE**

**Date:** Thursday, August 25, 2011  
**Time:** 9:30 a.m.  
**Location:** Room 1450 (Board of Supervisors' Chambers)  
 County Administration Building  
 700 H Street  
 Sacramento, California 95814

The Board of Directors of the Sacramento Metropolitan AQMD will conduct a public hearing to consider a proposed revision to the 2009 Sacramento Regional 8-Hour Ozone and Reasonable Further Progress Plan to remove the commitment to control measure IS-1, Construction Mitigation Rule. This revision of the State Implementation Plan will be forwarded to the California Air Resource Board for their approval and subsequent submittal to the U.S. Environmental Protection Agency for final approval as a revision to the State Implementation Plan.

This measure would have required mitigation of NOx emission on new land use construction sites by using cleaner equipment or paying a fee for the District to mitigate the emissions. Staff recommends removing this control measure from the SIP because:

- It largely duplicates our existing CEQA construction mitigation program that is being more consistently implemented by CEQA lead agencies.
- Construction emissions are significantly lower than previously estimated, in part, because of the recent economic downturn, and
- It adds administrative costs and new or increased fees that may be subject to Proposition 26.

This revision complies with the Clean Air Act (CAA) Section 110(l) because it will not change or interfere with the attainment demonstration (CAA Sections 172(c)(1) and 182(c)(2)(A)) or the reasonable further progress demonstration (CAA Sections 182(c)(2)(B) and (C)), and the reasonably available control measures conclusions (CAA Section 172(c)(1) and 182(c)), and will satisfy the requirements for the contingency measure conclusions (CAA Section 172(c)(9) and 182(c)(9)).

Copies of this notice, the proposed Plan revision, and the staff report are posted below:

[Amended Plan Pages \(PDF\)](#)  
[Staff Report \(PDF\)](#)

Paper copies may be viewed at the District office or purchased for a fee of 25¢ per page plus mailing costs.

By this notice, all interested parties are specifically requested to provide comments on the proposed amendments. Oral and written testimony may be directed to the Board of Directors at the public hearing on August 25, 2011. You may also submit your written comments to Joe Carle at Sacramento Metropolitan AQMD, 777 12th Street, 3rd Floor, Sacramento, CA 95814, (916) 874-4838, by fax to (916) 874-4899, or by e-mail to [jcarle@airquality.org](mailto:jcarle@airquality.org).

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