MARICOPA ASSOCIATION of GOVERNMENTS

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January 21, 2010

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Doug Kukino, Glendale, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, January 28, 2010 - 1:30 p.m.
MAG Office, Suite 200 - Saguaro Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Air Quality Technical Advisory Committee has been scheduled for the time and place noted above. Members of the Air Quality Technical Advisory Committee may attend the meeting either in person, by videoconference or by telephone conference call. Those attending by videoconference must notify the MAG site three business days prior to the meeting. If you have any questions regarding the meeting, please contact Chair Kukino or Lindy Bauer at 602-254-6300.

Please park in the garage underneath the building, bring your ticket, and parking will be validated. For those using transit, Valley Metro/Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

In 1996, the Regional Council approved a simple majority quorum for all MAG advisory committees. If the MAG Air Quality Technical Advisory Committee does not meet the quorum requirement, members who arrived at the meeting will be instructed a legal meeting cannot occur and subsequently be dismissed. Your attendance at the meeting is strongly encouraged. If you are unable to attend the meeting, please make arrangements for a proxy from your entity to represent you.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Stephens at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

TENTATIVE AGENDA

COMMITTEE ACTION REQUESTED

1. Call to Order

2. Call to the Audience

   An opportunity will be provided to members of the public to address the Air Quality Technical Advisory Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Air Quality Technical Advisory Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.

   2. For information.

3. Approval of the December 10, 2009 Meeting Minutes

   3. Review and approve the December 10, 2009 meeting minutes.

4. 2008 Implementation Status of Committed Measures in the MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area

   In accordance with the Clean Air Act, the MAG 2007 Five Percent Plan for PM-10 was submitted to the Environmental Protection Agency by December 31, 2007. In order to reduce PM-10, a broad range of commitments to implement measures were received from the State, Maricopa County, and the twenty-three local governments in the PM-10 nonattainment area. The plan includes fifty-three committed control measures which began implementation in 2008.

   On May 23, 2007, the MAG Regional Council approved additional items for the Suggested

   4. For information, discussion, and recommendation to forward the 2008 Implementation Status of Committed Measures in the MAG Five Percent Plan for PM-10 in the Maricopa County Nonattainment Area to the Governor's Office, Legislature, Arizona Department of Environmental Quality and the Environmental Protection Agency.

List of Measures to Reduce PM-10. One of the items was that each year, MAG would issue a report on the status of the implementation of the committed measures for this region by the cities, towns, Maricopa County and the State. The report would then be made available to the Governor's Office, Legislature, Arizona Department of Environmental Quality and the Environmental Protection Agency (EPA).

The draft report was discussed with the Committee at the last meeting. The Committee will now be requested to make a recommendation to the MAG Management Committee. Please refer to the enclosed material.

5. Update on PM-10 Certified Street Sweeper Projects for FY 2010 CMAQ Funding

On December 10, 2009, the MAG Air Quality Technical Advisory Committee recommended a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2010 CMAQ funding. On January 13, 2010, the MAG Management Committee endorsed the recommendation. It is anticipated that the MAG Regional Council will take action on January 27, 2010. An update will be provided.

5. For information and discussion.

6. Proposed Revised Eight-Hour Ozone Standard

On January 6, 2010, the Environmental Protection Agency proposed to strengthen the primary eight-hour ozone standard to a level within the range of .060-.070 parts per million. In addition, EPA proposed establishing a secondary standard within the range of 7-15 parts per million-hours. The final standards will be issued by August 31, 2010. Plans would be due in December 2013. Attainment dates would be 2014 to 2031 depending upon the severity of the problem. Please refer to the enclosed material.

6. For information and discussion.

7. Proposed Additional Funding for an Existing Air Quality Project for the MAG FY 2011 Work Program

   Additional funding in the amount of $280,000 is being proposed for the existing Air Quality Technical Assistance On Call Project for the MAG FY 2011 Unified Planning Work Program. In general, the Air Quality Technical Assistance On Call Project is for technical assistance in the preparation of an Eight-Hour Ozone Plan and supplemental analyses and information for the MAG 2007 Five Percent Plan for PM-10. Technical assistance may also be needed for air quality modeling; air quality monitoring and meteorology; traffic surveys and emissions inventories; dirt road inventories; statistical analysis of data; collection and analysis of field data; analysis of control measures; air quality plan preparation; CMAQ evaluation methodologies; and transportation conformity.

7. For information and discussion.

8. Call for Future Agenda Items

   The next meeting of the Committee has been tentatively scheduled for Thursday, February 25, 2010 at 1:30 p.m. For your convenience, the Tentative Meeting Schedule for the MAG Air Quality Technical Advisory Committee for January - November 2010 is provided. The Chairman will invite the Committee members to suggest future agenda items. Please refer to the enclosed material.

8. For information and discussion.

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING

Thursday, December 10, 2009
MAG Office
Phoenix, Arizona

MEMBERS ATTENDING

Doug Kukino, Glendale, Chairman
Gaye Knight, Phoenix, Vice Chair
Sue McDermott, Avondale
Elizabeth Biggins-Ramer, Buckeye
#Jim Weiss, Chandler
#Jamie McCullough, El Mirage
Kurt Sharp for Tami Ryall, Gilbert
Cato Esquivel, Goodyear
#Greg Edwards for Scott Bouchie, Mesa
William Mattingly, City of Peoria
Larry Person, Scottsdale
Antonio DeLaCruz, Surprise
Oddvar Tveit, Tempe
*Mark Hannah, Youngtown
Ramona Simpson, Queen Creek
*Walter Bouchard, Citizen Representative
*Corey Woods, American Lung Association of Arizona
Grant Smedley, Salt River Project
Brian O'Donnell, Southwest Gas Corporation
Mark Hajduk, Arizona Public Service Company
#Gina Grey, Western States Petroleum Association
Peggy Rubach for Randi Alcott, Valley Metro/RPTA
Dave Berry, Arizona Motor Transport Association
Jeannette Fish, Maricopa County Farm Bureau
*Russell Bowers, Arizona Rock Products Association
*Greater Phoenix Chamber of Commerce
Amanda McGennis, Associated General Contractors
*Spencer Kamps, Homebuilders Association of Central Arizona
Mannie Carpenter, Valley Forward
Erin Taylor, University of Arizona Cooperative Extension
Beverly Chenausky, Arizona Department of Transportation
Diane Arnst, Arizona Department of Environmental Quality
#Wienke Tax, Environmental Protection Agency
Jo Crumbaker, Maricopa County Air Quality Department
Duane Yantorno, Arizona Department of Weights and Measures
*Ed Stillings, Federal Highway Administration
David Belcheff for Judi Nelson, Arizona State University
#Christopher Horan, Salt River Pima-Maricopa Indian Community
*David Rueckert, Citizen Representative

*Members neither present nor represented by proxy.
#Participated via telephone conference call.
+Participated via video conference call.

OTHERS PRESENT

Lindy Bauer, Maricopa Association of Governments
Julie Hoffman, Maricopa Association of Governments
Randy Sedlacek, Maricopa Association of Governments
Cathy Arthur, Maricopa Association of Governments
Dean Giles, Maricopa Association of Governments
Patrisia Magallon, Maricopa Association of Governments
Adam Xia, Maricopa Association of Governments
Eileen Yazzie, Maricopa Association of Governments
Taejoo Shin, Maricopa Association of Governments
Dan Caitlin, Fort McDowell Yavapai Nation
Shane Kiesow, City of Apache Junction
Michelle Wilson, City of Glendale
Heather Hodgman, City of Apache Junction
Scott DiBiase, Pinal County Air Quality
Joonwon Joo, Arizona Department of Transportation
Mitch Wagner, Maricopa County Department of Transportation
Steve Peplau, Arizona Department of Environmental Quality
Leonard Montenegro, Arizona Department of Environmental Quality

1. Call to Order

A meeting of the MAG Air Quality Technical Advisory Committee was conducted on December 10, 2009. Doug Kukino, City of Glendale, Chair, called the meeting to order at approximately 1:32 p.m. Jamie McCullough, City of El Mirage; Greg Edwards, City of Mesa; Gina Grey, Western States Petroleum Association; Christopher Horan, Salt River Pima-Maricopa Indian Community; Wienke Tax, Environmental Protection Agency; and Jim Weiss, City of Chandler, attended the meeting via telephone conference call.

2. Call to the Audience

Mr. Kukino stated that, according to the MAG public comment process, members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Public comment is provided at the beginning of the meeting for nonagenda items and nonaction agenda items. He noted that no public comment cards had been received.

3. Approval of the October 29, 2009 Meeting Minutes

The Committee reviewed the minutes from the October 29, 2009 meeting. Gaye Knight, City of Phoenix, requested that page six of the minutes be changed to reflect "asphalt will be used once as opposed to stabilizing roads which will have a significantly higher 20-year life cycle cost." She moved that the October 29, 2009 minutes be approved with the correction. Diane Arnst, Arizona Department of Environmental Quality, seconded and the motion to approve the October 29, 2009 meeting minutes with the correction carried unanimously.

4. Evaluation of Proposed PM-10 Certified Street Sweeper Projects for FY 2010 CMAQ Funding

Dean Giles, MAG, presented the evaluation of proposed PM-10 Certified Street Sweeper Projects for Federal Fiscal Year 2010 Congestion Mitigation and Air Quality Improvement (CMAQ) funding. He stated that nine street sweeper projects were received requesting $1.6 million in CMAQ funds. Mr. Giles noted that the projects were received by the deadline of September 18, 2009. He added that this year, $1.3 million was available in fiscal year 2010 CMAQ funding. Mr. Giles indicated that an additional $354,018 in CMAQ funding is available from sweeper projects that had been requested to be deleted and from savings on sweepers that have cost less than anticipated, for a total amount of $1,664,018. A minimum local cash match of 5.7 percent is required for street sweeper projects. Mr. Giles stated that additional materials have been provided at each place that describe the discussion at the MAG Street Committee meeting. He added that the MAG Programming Principles established a two-tier review of the street sweeper projects and that the project review application sheets for the street sweepers include additional questions from the Street Committee for the two Gilbert applications. He commented that the Street Committee has thoroughly reviewed the application.

Mr. Giles stated that MAG staff has evaluated the proposed street sweeper projects using the CMAQ methodology that was updated in April 2009. He added that the evaluation provides the estimated emission reductions in kilograms per day and the corresponding cost effectiveness based on CMAQ dollars requested. Mr. Giles indicated that the list is provided in order of cost effectiveness. He mentioned that additional opportunity for comment will be provided at the MAG Management Committee meeting which is scheduled for January 13, 2010. Mr. Giles added that if a recommendation is made by the Management Committee, the projects will be forwarded on to the MAG Regional Council which is scheduled to meet on January 27, 2010. He commented that this item

is for information, discussion, and recommendation of a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2010 CMAQ funding to the MAG Management Committee.

Mr. Kukino inquired if all the projects were covered by the available funding. Mr. Giles responded that is correct. Brian O'Donnell, Southwest Gas Corporation, made a motion to forward the prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2010 CMAQ funding to the MAG Management Committee. Ms. Knight seconded, and the motion carried unanimously.

5. Evaluation of Proposed PM-10 Paving Unpaved Road Projects for FY 2013 CMAQ Funding

Mr. Giles presented the evaluation of proposed PM-10 Paving Unpaved Road Projects for Federal Fiscal Year 2013 CMAQ Funding. He stated that the PM-10 paving unpaved roads, alleys, and shoulders support measures in the MAG Five Percent Plan for PM-10. Mr. Giles added that 13 projects have been evaluated for FY 2013. He noted that the projects are requesting approximately $10.4 million in CMAQ funding; however, only $4.5 million is available in FY 2013 CMAQ for unpaved road projects. Mr. Giles indicated that there is a minimum 5.7 percent cash match for the projects. He commented that the deadline for the projects was September 18, 2009. Mr. Giles mentioned that the Street Committee has reviewed the applications that were submitted by the local jurisdictions. He noted that additional materials dated December 7, 2009 were provided at each place. Mr. Giles stated that the Street Committee asked several questions with regard to the paving projects. He added that the discussion was included in the materials provided along with any further updates of the data that was requested of the applicant.

Mr. Giles stated that MAG has evaluated the projects based on the information provided by the applicant and consistent with the CMAQ methodology from April 2009. He indicated that Attachment A provides the proposed projects ranked in order of cost effectiveness and Attachment B provides the projects ranked in order of PM-10 emission reductions. Mr. Giles added that the members of the Committee requested that MAG provide the table sorted by cost effectiveness and PM-10 emission reductions. The Committee is requested to recommend a ranked list of the Proposed PM-10 Paving Unpaved Road Projects for FY 2013 CMAQ funding to the MAG Transportation Review Committee (TRC).

Ms. Arnst referred to the 5.7 percent cash match. She inquired if there is also an in-kind match. Mr. Giles responded that there has been a number of matches used for paving projects in the Paving Project Program. He added that the initial match was 50 percent which has decreased to 5.7 percent, the current amount being used. Mr. Giles indicated that the jurisdictions are also providing a number of additional costs towards the project; therefore, a 5.7 percent match is appropriate for these types of projects.

Ms. Knight inquired about the differences in Attachments A and B. Mr. Giles responded that Attachment A is ranked by cost effectiveness and has eight projects above the line where funding is available. Attachment B is ranked by PM-10 emission reductions and includes the Gilbert Project below the funding line on the table. Ms. Arnst inquired about which table would have the most tons of PM-10 reduced before the money runs out. Mr. Kukino stated that he would think that Attachment A with the additional project would have the most reduction. He inquired if this assumption is correct. Mr. Giles responded that is correct.

Bill Mattingly, City of Peoria, inquired about residual funds. He asked if it is possible to partially fund a project that is currently not funded. Mr. Giles responded that under the MAG Programming

Principles, the Committee is to rank and recommend a list to the Transportation Review Committee which builds the Transportation Improvement Plan (TIP). He added that the TRC will be calling upon any of the jurisdictions below the funding level to see if the scope of their projects can be revised to fit in with the dollars that are available or possibly reduce the cost of a project so that the other funding can be utilized.

Mr. O'Donnell commented on the cost effectiveness. He stated that the Peoria projects have a cost effectiveness of $5,948-$5,974 per metric ton while the Surprise project has a cost effectiveness of $2,388 per metric ton. Mr. O'Donnell inquired if one project is more effective than the other. He asked if the amount shown is the amount of traffic. Mr. Giles responded that the amounts shown are the length and the average daily traffic. Antonio De La Cruz, City of Surprise, made a motion to forward Attachment A to the MAG Transportation Review Committee. Ms. Knight seconded, and the motion carried unanimously.

6. 2008 Implementation Status of Committed Measures in the MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area

Cathy Arthur, MAG, presented the 2008 implementation status of committed measures in the MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area. She stated that on May 27, 2007, the MAG Regional Council approved additional items for the Suggested List of Measures to Reduce PM-10. One of these items was that MAG would issue a report each year on the status of implementation of committed measures in the MAG Five Percent Plan for PM-10. Ms. Arthur added that this report, once completed, would be made available to the Governor's Office, Legislature, Arizona Department of Environmental Quality (ADEQ), and the Environmental Protection Agency (EPA). She stated that MAG staff submitted the Plan to EPA in December 2007, as required by the Clean Air Act. Ms. Arthur indicated that 53 new control measures were added to the Plan. She mentioned that attainment was demonstrated through modeling and the Plan also shows the five percent per year reductions. Ms. Arthur mentioned that MAG's role is to provide reports for 2008, 2009, and 2010 as to the status of implementation of the measures that were included in the 2007 Five Percent Plan for PM-10.

Ms. Arthur stated that feedback was received on the tracking forms that were developed by MAG staff. She noted that the tracking forms were sent out to the agencies in March and were received back in July. Ms. Arthur added that MAG staff has since been working on refining the language and adding additional items due to suggestions from the agencies. She mentioned that a draft has now been prepared for review by the Committee. She also stated that workshops were conducted in 2007, 2008 and 2009 to assist those completing the forms. Ms. Arthur indicated that the intent is to forward the report to the MAG Management Committee and Regional Council before sending it to the Governor's Office, Legislature and EPA.

Ms. Arthur summarized the report. She stated that there are 18 measures implemented by the State, 39 by Maricopa County and 15 by local governments. Ms. Arthur also indicated that 25 of the measures were quantified for credit against the Five Percent Plan and the modeling of attainment, 11 were quantified as contingency measures, and 17 were not quantified.

Ms. Arthur provided examples of measures that were easy to quantify since they were in terms of miles that were paved or stabilized. She indicated that Measure 26 exceeded the commitments in 2008 by 12 miles for stabilizing and paving public dirt roads. Ms. Arthur added that for dirt alleys, the actual reported miles paved or stabilized were 90 miles more than the commitments. She noted that there

was a similar situation for unpaved shoulders where the actual paved or stabilized shoulders were higher than the number in the commitments. In general, a majority of these measures either meet or exceed the Five Percent Plan commitments. Ms. Arthur noted that violations of the PM-10 standard have declined since 2006. She added that MAG will continue to track the progress in implementing Plan commitments in 2009 and 2010, as well as the PM-10 concentrations at the monitors.

Ms. Arthur noted that Measure 51 is not included in the report since it was a commitment by the City of El Mirage alone to assist MAG by conducting a local unpaved road inventory which would be input into the regional MAG unpaved road inventory. She noted that the implementation status of this measure will be shown in the 2009 report.

Amanda McGennis, Associated General Contractors, inquired about the number of people trained by Maricopa County. Jo Crumbaker, Maricopa Department Air Quality Department, responded that page three of the report indicates that 11,100 people were trained by the County.

Wienke Tax, EPA, inquired about the handout. Ms. Arthur responded that the report was provided as part of the agenda packet. She noted that the table in the report is significantly different than earlier drafts that she had received. Ms. Tax indicated that she did not have a copy of the report. Ms. Arthur indicated that she would provide Ms. Tax with a copy of the report.

Ms. Arnst stated that it is great to see that so many dirt roads are being paved. She inquired about how much of the $5 million in CMAQ funding that was carried over was spent to pave dirt roads. Ms. Arthur responded that MAG is now evaluating the paving projects for FY 2013. The projects in the 2008 tracking report would have already been in the TIP or possibly programmed in local Capital Improvement Programs. Mr. Kukino thanked all of the parties that are implementing measures and contributing to the implementation of these measures.

7. Motion to Reconsider Decision to Send a Letter to the MAG Regional Council on Reallocating the CMAQ Funding in the Regional Transportation Plan to Increase the Funding for Air Quality Projects

Lindy Bauer, MAG, stated that the Air Quality Technical Advisory Committee reviewed the evaluation of proposed projects for CMAQ funds at the October 29, 2009 meeting. She added that a motion was made and approved to send a letter to the MAG Regional Council requesting that the Regional Council consider allocating the CMAQ funding in the Regional Transportation Plan to increase the funding available for Air Quality Projects that reduce PM-10. Ms. Bauer indicated that since that time, interest has been expressed in reconsidering the motion to send a letter to the Regional Council. She commented that a motion to reconsider must be made by a Committee member who voted in favor of sending the letter to the MAG Regional Council.

Dave Berry, Arizona Motor Transport Association, made a motion to reconsider the decision to send a letter to the MAG Regional Council on reallocating the CMAQ funding in the Regional Transportation Plan to increase the funding for Air Quality Projects. Oddvar Tveit, City of Tempe, seconded, and the motion passed with one opposed.

8. Reconsideration of Motion to Send a Letter to the MAG Regional Council on Reallocating the CMAQ Funding in the Regional Transportation Plan to Increase the Funding for Air Quality Projects

Ms. Bauer stated that under this agenda item, the Committee may vote on the original motion which was to send a letter to the MAG Regional Council requesting that the Regional Council consider

reallocating the CMAQ funding in the Regional Transportation Plan to increase the funding available for Air Quality Projects that reduce PM-10.

Mr. Kukino requested clarification on the agenda item. Ms. Bauer responded that in the prior motion, the Committee indicated that it wishes to reconsider the action to send a letter to the MAG Regional Council on reallocating the CMAQ funding in the Regional Transportation Plan to increase the funding for Air Quality Projects. She added that under this agenda item, the Committee may now vote on the original motion. Mr. Berry encouraged the Committee to vote no on the original motion.

Peggy Rubach, Valley Metro, stated that she was not present at the October 29, 2009 meeting and had she been there she would not have voted in favor of the motion. She stated that the CMAQ funds not only fund air quality measures, but a good portion of the alternative modes such as bike, pedestrian, vanpool, carpool, trip reduction programs and safety education for children. She added that everyone has their favorite projects; however, one should not be forwarded to the exclusion of others. Ms. Rubach noted that these projects go through their Committees and subsequently to the Regional Council which does the ultimate priority making. Ms. Tax stated that it did not seem that just because the Committee is recommending to increase funding toward PM-10 reduction projects that any of the aforementioned projects would necessarily drop off the list.

Ramona Simpson, Town of Queen Creek, inquired if the Committee was asking for an specific dollar amount or just asking for an increase in funding for PM-10. Ms. Arnst responded that the original motion was to request that the MAG Regional Council consider giving the highest priority to the Air Quality Projects in light of the magnitude of the PM-10 problem in the area. She added that she does not understand why there would be a problem with referring that concern directly to the MAG Regional Council.

Ms. Knight inquired about the motion. Mr. Berry stated that the reconsideration brought the motion back to the Committee in order for the Committee to vote on it once again. Mannie Carpenter, Valley Forward, stated that he voted against the motion at the last meeting not because he was against the concept but mainly due to the method that the Committee chose. He added that he felt the Committee should go through the chain of command rather than bypass the process.

Mr. Kukino commented on the motion. Mr. Berry mentioned that the motion being considered is whether or not the Committee will send a letter to the MAG Regional Council. He added that a yes vote would be in favor of sending the letter to the Regional Council and a no vote would be against sending the letter.

Larry Person, City of Scottsdale, stated that the October 29, 2009 minutes reflect that he also commented on proper protocol during that discussion. He added that he had second thoughts about the motion at that time and even more at this point. Mr. Tveit agreed with the procedure of reconsidering the motion. He added that the Committee fell out of procedure at the previous meeting. Mr. Tveit agreed with the City of Scottsdale.

Ms. Knight stated that the Committee is in support of air quality issues and is not opposing bike, pedestrian and other projects; however, this Committee does have points of view and priorities for air quality. She added that her concern in the interim is that the Center for Law in the Public Interest has filed a lawsuit against EPA since EPA has not taken action on the Five Percent Plan for PM-10. Ms. Knight noted that the region is facing some challenges since the recent violations may or may not be considered natural events. She mentioned that even though she voted in favor of the motion at the last

meeting, she will be voting against it now. Ms. Knight noted that the Committee is an advisory body and should be supporting the MAG process and not be adding things that may complicate issues related to the lawsuit.

Ms. Arnst stated that the reason the motion came up and was discussed at length was because the Committee did go through the Committee process in 2007 and it did not get forwarded to the MAG Regional Council. She added that the motion to forward their concern directly to the MAG Regional Council was moved by Mr. Berry, seconded by Ms. Arnst and supported by the Committee with one exception. Jeannette Fish, Maricopa County Farm Bureau, inquired about the deadlines. She asked if the Committee has the time to go through the Committee process or if it was urgent to go directly to the Regional Council.

Ms. Bauer referred to the comments by Ms. Arnst. She stated that it is important for the Committee to have the full picture of this issue. She indicated that after the Committee made that recommendation in 2007, the MAG Executive Director; Eric Anderson, MAG; Ms. Bauer; Ms. Arnst; Patrick Cunningham, ADEQ; Jim Buster, ADEQ; and Ira Domsky, ADEQ, met to discuss the issue on November 30, 2007. Ms. Bauer indicated that the MAG Executive Director explained the difficult position he was in since the Transportation Policy Committee (TPC) had set the allocations that were in the Regional Transportation Plan which was approved by the voters. She noted that the voters had the expectation that all these different types of projects that were mentioned by Ms. Rubach would be part of the Regional Transportation Plan. Ms. Bauer mentioned that the MAG Executive Director also had discussed how it is bad public policy to pave more dirt roads with public monies as more dirt roads are being created through lot splits. She stated that ADEQ agreed and indicated that they would attempt to have this included in the Governor's State of the State Address as a priority since the lot splits were creating dirt roads. In addition, there would be Legislation in the upcoming session to address lot splits. Ms. Bauer added that the MAG Executive Director stated that this issue could be discussed at the TPC if a bill is passed and no new dirt roads are being created. However, when MAG checked back with ADEQ there was nothing in the State of the State Address or the 2008 Legislative Session. She stated that ADEQ indicated that there were no bills to address the issue.

Mr. Kukino stated that at the last meeting there was a lot of discussion on the item. He added that he agreed that the Committee should stay within the framework of the MAG process. Mr. Kukino indicated that the Committee was asked to address the issue of the technical aspects of the evaluation; however, the motion to send a letter to the Regional Council was added. Mr. Kukino called for a vote on the motion to send a letter to the MAG Regional Council requesting that the Regional Council consider reallocating the CMAQ funding in the Regional Transportation Plan to increase the funding available for Air Quality Projects that reduce PM-10. The motion failed with seven members voting yes and six members abstaining.

9. Lawsuit Filed by the Arizona Center for Law in the Public Interest for PM-10

Ms. Bauer provided a presentation on the lawsuit filed by the Arizona Center for Law in the Public Interest for PM-10. She stated that it has been two years since MAG submitted the Five Percent Plan for PM-10. Ms. Bauer added that she will provide an overview of the Plan and discuss the lawsuit filed by the Arizona Center for Law in the Public Interest, possible consequences, current issues and the best course of action. She indicated that the Five Percent Plan for PM-10 was required by the Clean Air Act. Ms. Bauer noted that the region is a Serious PM-10 nonattainment area. She commented that the region failed to attain the standard by the deadline of December 31, 2006; therefore, the Five Percent Plan for PM-10 was required. Ms. Bauer mentioned that MAG submitted

the Plan to EPA by December 31, 2007. She stated that the Plan met the requirements showing a five percent reduction in PM-10 emissions by using 53 new committed measures in the Plan. Ms. Bauer added that five percent emission reductions were for 2008, 2009 and 2010. She indicated that the modeling demonstrated attainment by 2010. Ms. Bauer commented that in order for the region to be deemed in attainment by EPA, the region needs three years of clean data at all PM-10 monitors in 2008, 2009 and 2010.

Ms. Bauer discussed the measures in the Plan. She presented the measures that were used for numeric credit toward the five percent reductions in emissions and the attainment demonstration. Ms. Bauer added that the chart includes measures for sand and gravel, construction, dust control training, paving and stabilizing unpaved dirt roads and shoulders, vacant lots, banning all-terrain vehicle (ATV) use on high pollution advisory days and the ban of leaf blowers. Ms. Bauer presented the contingency measures in the Plan which included: paving and stabilizing public dirt roads and alleys, PM-10 street sweepers, $5 million to pave dirt roads/shoulders, Agricultural Best Management Practices, and others.

Ms. Bauer discussed the 2010 PM-10 Emissions with Committed Control and Contingency Measures. She noted the changes in the construction category. Ms. Bauer discussed the PM-10 monitoring data. She stated that 2008 is the first year where the region must be clean at the monitors. Ms. Bauer indicated that the 2008 bar represents 12 exceedances; however, ADEQ has indicated that 11 of those exceedances were due to exceptional/natural events. She stated that ADEQ has done an excellent job providing documentation for those exceptional events. Ms. Bauer commented that there have been seven exceedances in 2009 which may also be due to exceptional/natural events. Ms. Bauer indicated that ADEQ has not yet completed its analysis for 2009 and sent the documentation to EPA.

Ms. Bauer discussed the status of the MAG Five Percent Plan for PM-10. She stated that EPA has not acted to approve or disapprove the Plan. She added that according to the Clean Air Act, EPA was to take action by June 30, 2009. Ms. Bauer indicated that on August 4, 2009, the Arizona Center for Law in the Public Interest submitted a letter with a notice of intent to file a lawsuit against EPA for not acting on the Plan. She commented that the Arizona Center for Law in the Public Interest filed a lawsuit on December 2, 2009 to order EPA to propose approval or disapproval of the Plan within one month and finalize the action within three months. Ms. Bauer mentioned that if EPA proposes disapproval of the Plan, in whole or part, sanctions will be imposed if the problem is not corrected within 18 months from the proposed finding of disapproval. She added that the first sanction would fall which would be tighter controls on major industries (2:1 offsets in emissions). Ms. Bauer stated that if the problem is not corrected within 24 months from proposed finding of disapproval, the region could lose the federal highway funds. She added that $1.1 billion may be at risk in the MAG Transportation Improvement Plan and a federal implementation plan would be imposed. Ms. Bauer indicated that imposition of highway sanctions may trigger a conformity lapse and major projects in the $7 billion Transportation Improvement Program could not proceed.

Ms. Bauer discussed the current issues with the MAG Five Percent Plan for PM-10. She stated that the Plan is based on a 2005 PM-10 emissions inventory. She noted that 2005 was a good year in comparison to the economy that we are currently experiencing. Ms. Bauer added that the 2005 inventory was a key piece in the MAG Air Quality Plans. She commented that the 2009 construction numbers are down by 60 percent versus the numbers in 2005. Ms. Bauer mentioned that residential construction decreased by 80 percent compared to the 2005 numbers. She indicated that the mix of sources and the inventory has changed due to the downturn in the economy. Ms. Bauer stated that there has been monitored exceedances of the PM-10 standard in 2008 and 2009. She indicated that

MAG staff agrees that ADEQ has done an excellent job and has documented 11 of the 12 exceedance days in 2008 as exceptional/natural events due to the high winds; however, EPA has not approved these and is currently reviewing the ADEQ documentation. Ms. Bauer mentioned that in 2009, some or all of the seven exceedance days may be exceptional/natural events; however, ADEQ has not yet submitted the documentation to EPA. She indicated that if the ADEQ report is accepted by EPA, then the region would have its first year of clean data for 2008.

Ms. Bauer stated that if EPA does not agree with the ADEQ exceptional/natural events documentation, additional measures will be needed to reduce emissions by five percent per year until attainment is reached at the monitors. She added that the air quality modeling in the Plan will also need to be revised. Ms. Bauer indicated that three years of clean data at all PM-10 monitors will be needed in order to determine that the region is in attainment. Ms. Bauer mentioned that MAG, Maricopa County, and ADEQ are currently updating the PM-10 emissions inventory. She noted that MAG has provided the mobile source portion of the emissions inventory to Maricopa County. Ms. Bauer commented that Maricopa County anticipates having a draft of the new 2008 inventory by February 2010. She mentioned that most of the questions being asked by EPA focus on windy natural events at the West 43rd Avenue monitor. Ms. Bauer stated that assistance is being provided to EPA as they review the Five Percent Plan for PM-10 and the ADEQ documentation for exceptional/natural events. She added that additional field data is being collected during windy and stagnant days. Ms. Bauer indicated that MAG, ADEQ and Maricopa County are helping EPA to better understand the exceptional events. She commented that MAG along with Sierra Research is working with the group to provide assistance and help understand the activity around the monitors.

Ms. Bauer discussed the best course of action. She stated that if EPA is in an agreement with the ADEQ exceptional/natural events, then the region will have one year of clean data in 2008. Ms. Bauer noted the importance of addressing the issues before EPA proposes action on the Plan. She indicated that EPA has not yet identified the Plan approvability issues and the timing for the EPA proposed action is uncertain. Ms. Bauer commented that it would be prudent, if possible, to obtain additional information to satisfy EPA's questions and concerns and resolve any outstanding issues before any proposed action. She noted the importance of preventing violations at the monitors and throughout the region. Ms. Bauer stated that if the region continues to violate at the monitors, it will not matter the amount of measures in the Plan since the region would not be attaining the standard at the monitors. She added that a lot of it depends on the compliance and enforcement.

Mr. O'Donnell inquired about a graph of the 53 measures that illustrates the progress. Ms. Bauer responded that the tracking report provided to the Committee shows the progress for 2008. She stated that there is a lot of variety. Ms. Bauer added that the Legislature phased in some of the measures when Senate Bill 1552 was passed. She indicated that the local governments and the County have adopted their ordinances. Ms. Bauer noted that those ordinances were collected by ADEQ and submitted to EPA.

Elizabeth Biggins-Ramer, Town of Buckeye, expressed concern with regard to the prevention of violations at the monitors. She inquired about the expectations of the region. Ms. Bauer responded that MAG would never propose to just prevent violations at the monitors. She added that the air quality measures have to be implemented on the sources of the pollution throughout the nonattainment area. She clarified that she was pointing out that if one monitor is violating the standard, the region would not be in attainment. Ms. Bauer stated that for PM-10, a small source by a monitor can cause the entire region to not be in attainment if it does not comply with the Maricopa County dust control

rules or Rule 316 for example. She mentioned that Maricopa County also has a program where they watch the PM-10 concentrations at the monitors and if those numbers start to increase, the County will check into the problem and try to prevent a violation from occurring. Ms. Bauer noted that Clark County, Nevada, has a similar program and has been successful in complying with the PM-10 standard. She indicated that Maricopa County hosted a workshop where some of the Committee members traveled to Clark County to discuss their success.

Ms. Biggins-Ramer stated that there is a PM-10 monitor on the edge of the Town of Buckeye and the nonattainment area that is constantly exceeding the PM-10 standard. She noted the agriculture is located to the west, north and south of the monitor. She inquired about addressing that issue. Ms. Bauer responded that Agricultural Best Management Practices are part of the Five Percent Plan for PM-10. She added that the enforcement for agriculture is under the jurisdiction of ADEQ. Ms. Arnst stated that Senate Bill 1225 which passed in 2009 requires that the Agricultural Best Management Practices Committee revise the rule by June of next year. She indicated that the Committee meets regularly to consider the rule. Ms. Arnst noted that the meetings are public and indicated that the dates are available through ADEQ with the next meeting occurring on December 18, 2009.

Ms. Biggins-Ramer stated that the monitor has multiple agricultural sources which cover a large geographical area. Ms. Arnst responded that ADEQ submitted a chart showing all of the compliance assistance visits, outreach, and number of facilities brought back into compliance along with the tracking materials. Ms. Bauer stated that the points made by Ms. Biggins-Ramer are well taken. She noted that ADEQ has the enforcement authority over agriculture, not the cities. Ms. Bauer indicated that Buckeye is calling ADEQ's attention to the fact that help is needed. She mentioned that Ms. Fish is also on the Air Quality Technical Advisory Committee and often times can look into these issues if needed. Ms. Fish responded that under Senate Bill 1552, the Agricultural Best Management Practices area was expanded west of the Town of Buckeye. She added that the construction project running along State Route 85 near the monitor may also have an impact.

Mark Hajduk, Arizona Public Service Company, inquired if MAG can provide insight on why EPA has not approved the Plan. He asked if there are concerns EPA had expressed to MAG or ADEQ. Ms. Bauer responded that the time lines are in the Clean Air Act. She indicated that EPA has one year from the point at which a Plan has been found to be complete. Ms. Bauer stated that the PM-10 Plan was deemed complete by operation of law on June 30, 2008 and EPA had until June 30, 2009 to take action on the Plan. Ms. Bauer commented that the only indications at the moment are the issues that were mentioned. She noted that EPA has indicated their concerns since the letter received in August from the Arizona Center for Law in the Public Interest. Mr. Hajduk commented on the 2008 emissions inventory. He inquired if the emissions inventory will be included in the State Implementation Plan (SIP) or submitted to EPA as a revision. He commented that the decisions made by the Committee were based on the 53 measures and inquired if the Committee will revisit the emissions inventory. Ms. Bauer responded that the emissions inventory is a major piece of the Five Percent Plan for PM-10. She added that the Plan was based on the 2005 emissions inventory and MAG staff will have to see how the committed measures will stack up against the new 2008 inventory when it is completed by the County.

Mr. Carpenter stated that the updated inventory may not reflect 2009 and 2010. He added that the whole idea of basing the inventory on a one year snap shot seems like chasing the end of the rainbow, you can never really get there. Ms. Bauer responded that the Air Quality Plans start with a base year inventory. She added that she agreed with Mr. Carpenter that the economy in 2008 was not as bad as

2009. Ms. Bauer indicated that MAG will work with EPA, ADEQ, and Maricopa County to make realistic projections moving forward. She noted that if more years are added to the Five Percent Plan for PM-10, attainment will have to be modeled for another year, and the five percent reductions in emissions will have to be recalculated for another year and against a different inventory. Ms. Bauer mentioned that EPA has indicated that the projections have to be done to reflect the current situation. Mr. Carpenter inquired if the 60 percent reductions in construction activity should equate to 13-14 percent reductions in emissions based on the pie chart. Ms. Bauer responded that there may have been changes in the other categories of the emissions inventory as well. She added that MAG will be working with ADEQ, EPA and the County to review the information.

Grant Smedley, Salt River Project, commented on the interaction between EPA and MAG. He indicated that the feedback from EPA seems to be on the Five Percent Plan for PM-10 and the exceptional events that ADEQ has identified. Mr. Smedley inquired if the comments by EPA have been mainly focused on exceptional events. He asked if EPA has provided any feedback on the Plan and inquired about the sanctions. Ms. Bauer responded that the tracking report shows that in general, the commitments are being implemented. She added that the Clean Air Act states that the Plan is to be based on a recent accurate emissions inventory. Ms. Bauer commented that EPA indicated that the downward turn in the economy has had an impact on the emissions inventory. She stated that the natural/exceptional events will determine whether or not the region will have one year of clean data. Ms. Bauer added that the Clean Air Act states that for this type of plan, a five percent reduction in emissions per year is needed until attainment is reached. She indicated that if the region does not have any years of clean data, than the region will have to look further into that and re-do the modeling in the Plan. Ms. Bauer noted that the 2005 inventory does not reflect the current situation.

Duane Yantorno, Department of Weights and Measures, commented that he is hopeful that the State will not stay at 60 percent reduction in construction and that the industry make a turn for the better. He discussed building the inventory based on low numbers and inquired what will happen when the industry gets better. Mr. Yantorno asked about the efficiency of the control measures that were suggested into the Plan. He added that these measures were just being implemented as the economy started to take a downturn. Mr. Yantorno inquired if it would be possible for the region to have to work on this issue again since there could be more changes in the future. Ms. Bauer responded that MAG works on population projections, socioeconomic data, transportation modeling and air quality modeling which are constantly changing. She commented that EPA has stated that things are changing dramatically; therefore, the region needs to project forward in a way that is not as optimistic or unrealistic. She indicated that typically EPA does not want a region to use a period of recession to assume that the future will be in the same shape. Ms. Bauer commented on the 53 measures in the Plan. She stated that based on the tracking report, these measures are being implemented and MAG will continue to track these measures and make sure that they are being implemented. Ms. Bauer added that MAG will share information with the Committee as it becomes available.

Ms. McGennis commented on the natural/exception events. She inquired if the County is in agreement with ADEQ on those being classified as natural events. Ms. Crumbaker responded that there are factors in some of the events that complicate their determination as to whether they are natural and exceptional. She mentioned that some of the events are a combination with two spikes during the day. Ms. Crumbaker added that one spike is during a stagnant period in the morning and the other is during a windy period which makes it difficult to make a determination. She indicated that those are the types of discussions and added information that has been requested by the County to supply to EPA. Ms. Crumbaker noted that there may be answers in the future on those events. Ms. McGennis inquired if

the County conferred with ADEQ on those events. Ms. Crumbaker responded that the County attended the meetings that discussed the natural and exceptional events.

Mr. Hajduk inquired about the difference between the region exceeding the standard with an approved plan versus a plan that is not approved. He asked about the sanctions and the impacts on the region. Ms. Bauer responded that EPA would not approve a plan when there are violations at the monitor. She added that the Five Percent Plan for PM-10 has an attainment demonstration date of 2010. Ms. Bauer indicated that in order for EPA to determine that the region is in attainment by 2010 as predicted by the Plan, the region will need three years of clean data. She noted that this would mean that the region would have to be clean at the monitors in 2008, 2009 and 2010. Ms. Bauer mentioned that EPA has not taken action on the Plan and is currently reviewing the natural/exceptional events data. Mr. Hajduk inquired if EPA is balking on the Plan since the determination has not been made on whether the events are natural, wind events or exceedances. He asked if the events are considered to be exceedances, would EPA then not approve the Plan. Ms. Bauer stated that EPA is not balking the Plan. She noted that EPA has been cooperative in working with the region.

Mr. Carpenter inquired about the possibility of the Plan being approved by operation of law since EPA has not taken action. Ms. Bauer responded that there is not that type of language in the Clean Air Act for plan approval. She indicated that Mr. Carpenter may be referring to the completeness finding. If EPA does not take action on the Plan by a certain date after being submitted, it could be deemed completion by operation of law. Mr. Kukino inquired if the handouts will be available on the MAG website for those that were unable to attend the meeting. Ms. Bauer responded that MAG staff will make the presentations available on the MAG website.

10. Call for Future Agenda Items

Ms. Rubach referred to the suggestion made by Beverly Chenausky, Arizona Department of Transportation, at the last meeting on the determinations and modeling for CMAQ. She stated that the CMAQ methodologies will be going through changes in the spring. Ms. Rubach discussed that Travel Demand Management will only count carpool, vanpool and exclude transit which currently has 71 million riders. She added that the Committee needs to take a look to make sure that the region can get as much credit as possible. Ms. Bauer inquired if Ms. Rubach was discussing the CMAQ methodologies. Ms. Rubach responded yes. She commented that she would like to know the methodologies for how credit is assumed the effectiveness is computed. Ms. Chenausky added that her suggestion included an update on the Congestion Management Process and the assumptions that are used in the Travel Demand Model. Ms. Bauer stated that MAG will work accommodate these suggestions at the January 28, 2010 meeting.

Mr. Kukino announced that the next meeting of the Committee has been tentatively scheduled for January 28, 2010 at 1:30 p.m. With no further comments, the meeting was adjourned at 2:56 p.m.

Agenda Item #4

2008 IMPLEMENTATION STATUS OF COMMITTED MEASURES IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10 FOR THE MARICOPA COUNTY NONATTAINMENT AREA

JANUARY 2010

MARICOPA ASSOCIATION of GOVERNMENTS

2008 IMPLEMENTATION STATUS OF COMMITTED MEASURES IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10 FOR THE MARICOPA COUNTY NONATTAINMENT AREA

The MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area was submitted to the Environmental Protection Agency (EPA) in December 2007. In order to reduce PM-10, a broad range of commitments to implement measures were received from the State, Maricopa County, and the twenty-three local governments in the PM-10 nonattainment area. The plan includes fifty-three committed control measures which began implementation in 2008. The Maricopa Association of Governments is tracking the implementation of the measures in the plan.

A tracking form was prepared to assist the implementing entities in reporting the progress made to implement measures for calendar year 2008. This tracking form was sent to MAG member agencies on March 12, 2009. All completed tracking forms were received by July 22, 2009. MAG has summarized the status of the implementation of the committed measures for calendar year 2008 in Table 1. Table 2 provides additional policies and actions initiated by the Maricopa County Air Quality Department in 2009. In general, the implementation results for 2008 meet or exceed the commitments made to implement a majority of the measures in the MAG Five Percent Plan for PM-10.

Figure 1 illustrates the PM-10 emission reductions in 2010 for the committed control measures that were quantified for numeric credit to meet the five percent per year target and demonstrate attainment. Figure 2 provides the PM-10 emission reductions in 2010 for the committed contingency measures that were quantified for numeric credit. In some cases, the emission reductions represent the impact of multiple, reinforcing measures.

BACKGROUND INFORMATION

In accordance with the Clean Air Act, the MAG 2007 Five Percent Plan for PM-10 was submitted to the Environmental Protection Agency by December 31, 2007. The plan was required to reduce PM-10 emissions by five percent per year until the standard is met. In order to attain the standard, the region needs three years of clean data at the monitors (2008, 2009, 2010). It is important to attain the PM-10 standard as quickly as possible or additional years of five percent reductions may need to be added to the plan. The Executive Summary for the MAG 2007 Five Percent Plan for PM-10 is attached.

On May 23, 2007, the MAG Regional Council approved additional items for the Suggested List of Measures to Reduce PM-10. One of the items was that each year, MAG would issue a report on the status of the implementation of the committed measures for this region by the cities, towns, Maricopa County and the State. The report would be made available to the Governor's Office, Legislature, Arizona Department of Environmental Quality and the Environmental Protection Agency. This report provides the implementation status of committed measures for calendar year 2008.

The forms for tracking the implementation of committed measures were developed with input from the implementing entities. MAG conducted three workshops to discuss the tracking of the measures on December 18, 2007; September 23, 2008; and March 31, 2009. The draft forms were also transmitted in October 2008 to give advance notice of the types of information that would be needed by MAG.

Monitored exceedances of the 24-hour PM-10 standard have declined since 2006, as shown in Figure 3. There can be no more than three daily exceedances at any PM-10 monitor over a three year period in order for the standard to be met. The measures described in this tracking report will be important in reducing PM-10 emissions, to enable the region to meet the standard by 2010. MAG will continue to monitor the implementation status of the measures, as well as monitor PM-10 concentrations.

TABLE 1
2008 IMPLEMENTATION STATUS OF COMMITTED MEASURES IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Fugitive Dust Control Rules		
1. **Public education and outreach with assistance from local governments.** Quantified for numeric credit as a contingency measure.	353 Articles (internal and public media, newsletters, etc.) were published. 119 Media / Events (specific air events, booths on air quality at other events, media, etc.) were held. Over 137,000 visits to the Maricopa County Air Quality Department website; over 24,000 visits to the Air Quality news page. In addition to publishing articles and conducting events, Maricopa County and 14 local governments performed other types of public education and outreach activities.	County, State, local governments
2. **Extensive Dust Control Training Program.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Dust Control training program required by Senate Bill (SB) 1552. (A.R.S. § 49-474.05 A. & B.) In March 2008, Maricopa County adopted Rule 310, Rule 280, and Rule 316 revisions in regard to dust control training. Maricopa County hired 2 dust control compliance and 2 administrative support personnel to coordinate and conduct the training program. 11,100 individuals completed County-certified dust control training classes. This includes training conducted by certified trainers in local government. One local government has provided all applicable workers with dust control training. In one jurisdiction, 63 staff received training and certificates for the Maricopa County Basic Dust Control Rule 310 and 1 staff member received the Comprehensive Dust Control Rule 310 training and certificate. In one federal agency, 2 staff members completed training to become certified dust control coordinators.	County, private sector

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
3. **Dust Managers required at construction sites of 50 acres and greater.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Dust managers required by SB 1552. (A.R.S. § 49-474.05 A. & E.) In March 2008, Maricopa County adopted Rule 310 and Rule 316 revisions in regard to dust managers.	County
4. **Dedicated enforcement coordinator for unpaved roads, unpaved parking, and vacant lots.**	Maricopa County assigned a supervisor to oversee the vacant lot program.	County
5. **Establish a certification program for Dust Free Developments to serve as an industry standard.** Quantified for numeric credit as a contingency measure.	SB 1552 required ADEQ to establish a certification program. (A.R.S. § 49-457.02 A.) This measure was not implemented because ADEQ delayed the certification program indefinitely due to budgetary constraints. Maricopa County will support ADEQ's efforts (when ADEQ's budgetary constraints are lifted) to develop a program to certify and publicize companies that routinely demonstrate exceptional efforts to reduce airborne dust. As the regulatory authority, Maricopa County will provide verifications of eligible companies as necessary to implement this program and as requested by ADEQ.	State, County
6. **Better defined tarping requirements in Rule 310 to include enclosure of the bed.**	In March 2008, Maricopa County adopted Rule 310 and Rule 310.01 revisions in regard to tarping. Maricopa County changed the requirements regarding loading haul trucks (i.e., load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area).	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
7. Conduct mobile monitoring to measure PM-10 and issue NOVs.	In December 2008, Maricopa County filled 1 chemical engineering position for the mobile monitoring program. In February 2009, the mobile monitoring van was delivered to Maricopa County.	County
8. Conduct nighttime and weekend consistent inspections. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Although Maricopa County conducted nighttime and weekend inspections during 2008, the program was not fully implemented, as the department was focused on hiring and training additional staff. Nighttime and weekend inspections conducted in 2008 included complaint inspections and targeted inspections of specific industries that operate at night and on weekends. In 2009, Maricopa County initiated a pilot nighttime and weekend inspection program. Following the pilot program, the County initiated a cross-training program for all inspectors to better utilize their abilities to deal with all circumstances and source types they may encounter.	County
9. Increase consistent inspection frequency for permitted sources. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	In March 2008, Maricopa County adopted Rule 280 revisions in regard to inspection frequency. Maricopa County hired 32 inspectors, 13 administrative and permit technicians, 6 inspector supervisors, and 4 administrative supervisors for the Dust Control Compliance Program. Maricopa County issued 4,355 permits for dust control sources (Rule 310). Maricopa County conducted 12,303 inspections of dust control permitted sources (Rule 310). Maricopa County hired 5 inspectors for nonmetallic mineral processing facilities (Rule 316). These 5 inspector positions are included in the 32 inspector positions mentioned above. Maricopa County issued 117 permits for nonmetallic processing facilities (Rule 316). Maricopa County conducted 443 inspections of nonmetallic mineral processing facilities (Rule 316).	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
10. Increase number of proactive consistent inspections in areas of highest PM-10 emissions densities. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Maricopa County conducted monitor surveillance on six days.	County
11. Notify violators more rapidly to promote immediate compliance.	Maricopa County Air Quality Department (MCAQD) continued the standard practice of dust compliance inspectors who observe potential violations making reasonable efforts to inform a person on-site or call the permit holder so that measures can be taken to prevent, reduce, or mitigate dust generation before a violation occurs.	County
12. Provide timely notification regarding high pollution days.	Maricopa County sent 1,154,570 text alerts and messages to subscribers for high pollution advisories (HPAs) and health watches. Since August 2008, Maricopa County sent 25 emails and 77 text messages to 4,870 subscribers. Maricopa County posted news articles, related to particulate matter HPAs and health watches, on its website. Maricopa County website visits: 20,727 unique visitors; average pages visited = 3.24; average time spent = 2.22 minutes.	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
13. **Develop a program for subcontractors.**	Subcontractor program required by SB 1552. (A.R.S. § 49-474.06 A.) In March 2008, Maricopa County adopted Rule 200 and Rule 280 revisions in regard to the subcontractor registration program. Maricopa County hired 4 permit technicians to administer the subcontractor registration program. These positions are included in the 55 positions noted in Committed Measure #9. Maricopa County registered 4,882 subcontractors.	County
14. **Reduce dragout and trackout emissions from nonpermitted sources.** Quantified for numeric credit as a contingency measure.	In March 2008, Maricopa County adopted Rule 310.01 revisions in regard to dragout and trackout. Maricopa County added the requirement to install a trackout control device to sections covering unpaved parking lots and off-site hauling of bulk materials by livestock operations. Also, in Rule 310.01, Maricopa County added the definitions of "trackout/carryout" and "trackout control device".	County
15. **Cover loads/haul trucks in Apache Junction.** Quantified for numeric credit as a contingency measure.	In early 2008, the City of Apache Junction adopted an ordinance to cover loads/haul trucks.	City of Apache Junction
16. **Require dust coordinators at earthmoving sites of 5-50 acres.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Dust coordinator required by SB 1552. (A.R.S. § 49-474.05 A. & E.) In March 2008, Maricopa County adopted Rule 310 and Rule 316 revisions in regard to dust coordinators.	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
36. **Require barriers in addition to Rule 310 stabilization requirements for construction where all activity has ceased, except for sites in compliance with storm water permits.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	In March 2008, Maricopa County adopted Rule 310 revisions in regard to barriers. Maricopa County revised long-term stabilization control measures to reduce the period of inactivity to 30 days and added the requirement for barriers, if water is chosen as the control option.	County
37. **Reduce the tolerance of trackout to 25 feet before immediate cleanup is required for construction sites be placed in Maricopa County Rule 310.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	In March 2008, Maricopa County adopted Rule 310 revisions in regard to the trackout requirements by reducing the toleration of trackout to 25 feet before cleanup is required.	County
38. **No visible emissions across the property line be placed in Maricopa County Rule 310 and 310.01, and in local ordinances for nonpermitted sources appropriate.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	In March 2008, Maricopa County adopted Rule 310 and Rule 310.01 revisions in regard to visible emissions. One local government adopted an ordinance that restricts visible emissions from crossing property lines.	County, local governments
49. **Allow Peace Officer enforcement of load covering.**	SB 1552 amended existing state law to require that for the purpose of highway safety or air pollution prevention, a person shall not drive or move a vehicle on a highway unless the vehicle is constructed or loaded in a manner to prevent any of its load from dropping, sifting, leaking or otherwise escaping from the vehicle. (A.R.S. § 28-1098 A. - C.)	State

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Industry		
17. Fully implement Rule 316. Quantified for numeric credit as a contingency measure.	The Rule 316 litigation was settled on June 20, 2007. As a result, the June 8, 2005, version of Rule 316 was in place as of the settlement date. Maricopa County is enforcing the provision of Rule 316 for nonmetallic mineral processing sources of PM-10.	County
39. Modeling cumulative impacts - The measure would need further definition by Maricopa County and the Arizona Department of Environmental Quality and be subject to input to ensure that unintended consequences for temporary uses are not created.	Maricopa County and the Arizona Department of Environmental Quality have prepared a draft cumulative air quality modeling policy and guidance. The draft is undergoing internal and management review at the Maricopa County Air Quality Department. It is important to note that no emission reduction credit was quantified for this measure in the Five Percent Plan.	State, County
Nonroad Activities		
18. Ban or discourage use of leaf blowers on high pollution advisory days.	Program to ban or discourage leaf blowers required by SB 1552. (A.R.S. § 9-500.04 A.5.(a). and A.R.S. § 11-877 A.1.) Maricopa County and 22 local governments have implemented programs that restrict or prohibit the use of leaf blowers on high pollution advisory days.	County, local governments

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
19. **Reduce off-road vehicle use in areas with high off-road vehicle activity impoundment or confiscation of vehicles for repeat violations.** Quantified for numeric credit as a contingency measure.	Ordinance to prohibit off-road vehicle use required by SB 1552. (A.R.S. § 9-500.27 A.- E. and A.R.S. § 49-457.03) In February 2008, Maricopa County adopted the P-28 Off-Road Vehicle Use in Unincorporated Areas of Maricopa County Ordinance. This ordinance was developed to address dust concerns raised by vehicle use and trespass on private and public property. It is intended to complement Maricopa County Rule 310.01, which focuses on property owners' responsibility to maintain soil stabilization. Currently, the Maricopa County Ordinance P-28 is undergoing revisions to its penalty structure, which is intended to provide more flexibility in adjudicating cases. Until these revisions are approved, the County is developing information on frequent complaint areas and access points, enforcement history, ongoing outreach efforts by police departments, Justice Court procedures, and database needs. In addition to responding to complainants' concerns, MCAQD has organized a group of inspectors to gather this type of information and begin making direct contacts in the field. In 2009, MCAQD initiated efforts to develop a partnership with law enforcement agencies, not only to address the inspectors' limited authority on these contacts, but also to provide a consistent enforcement message to the public. 23 local governments have new or existing ordinances to prevent or discourage off-road vehicle use and restrict access to areas with high off-road vehicle use. ADEQ distributed 3,700 hard copies of "Nature Rules" map to off-road highway vehicle (OHV) dealers and posted materials on the Arizona State Parks website (website received 11,660 visits), ADEQ's website (website received 2,741 visits), and the Arizona Game and Fish Department website.	County, State, local governments, private sector

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
19. Reduce off-road vehicle use in areas with high off-road vehicle activity impoundment or confiscation of vehicles for repeat violations - CONTINUED.	Maricopa County, 17 local governments, and ADEQ, have conducted public education and outreach to discourage off-road vehicle use in the PM-10 nonattainment area. The Tonto National Forest included a segment on dust control education in its off-highway vehicle (OHV) training program. 8 jurisdictions with high off-road activity have restricted vehicle use by installing signs and/or physical barriers. One local government stabilized 57 acres with hydroseed and posted "No Trespassing" signs on 4.1 miles of vacant areas in two washes. Arizona State Trust Land spent $159,203 to implement the following control measures: installation of 1,037 linear feet of concrete barriers; installation of 7,352 linear feet of chain link fence; purchase of 300 "No Trespassing" signs; purchase and installation of two 10-foot gates; posting of 38 "Area Closed by Commissioners Orders" signs; posting of 2 "Closed for Soil Stabilization" signs; posting of 14 "No Trespassing" signs; and increasing the presence of law enforcement. Arizona State Parks installed one kiosk and two access gates; replaced 1 mile of fencing; provided outreach at 77 official events; and provided 3,100 public information contacts. Arizona Game and Fish Department issued 27 citations for violations of the OHV law.	County, State, local governments, private sector

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
20. Provide incentives to retrofit nonroad diesel engines and encourage early replacements with advanced technologies.	In 2007, the Arizona Legislature adopted Senate Bill 1552 which included a voluntary diesel equipment retrofit program. (A.R.S. § 49-474.07 A. - D.) According to A.R.S. § 49-474.07 A., a County with a population of more than four hundred thousand persons shall operate and administer a voluntary diesel emissions retrofit program in the county for the purpose of reducing particulate emissions from diesel equipment. The program shall provide for real and quantifiable emissions reductions based on actual emissions reductions by an amount greater than that already required by applicable law, rule, permit or order and computed based on the percentage emissions reductions from the testing of the diesel retrofit equipment prescribed in Subsection C as applied to the rated emissions of the engine and using the standard operating hours of the equipment. Maricopa County Air Quality Department (MCAQD) has indicated that A.R.S. § 49-474.07 did not establish a fund to provide incentives to retrofit nonroad engines, but rather established provisions applicable to permitted stationary source diesel powered equipment. Under the provisions of ARS 49-474.07, the permittee may retain one-half of the particulate emissions reductions from retrofit of diesel equipment operated at the permitted site for purposes of receiving a permit modification or a new permit provision that allows for extended hours of operation for the permitted equipment. The provisions of ARS § 49-747.07 are undergoing legal review and analysis during the current statewide new source review rulemaking, and if implemented, will require revision of MCAQD's stationary source permitting program and applicable rules. However, this review and analysis has no bearing on the Five Percent Plan or on Committed Measure #20. It is important to note that no emission reduction credit was quantified for this measure in the Five Percent Plan.	State

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
21. **Ban leaf blowers from blowing debris into streets.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Ordinance required by SB 1552. (A.R.S. § 9-500.04 A.5.(b)., A.R.S. § 11-877 A.2., and A.R.S. § 49-457.01 B.) Maricopa County adopted the P-25 Leaf Blower Restriction Ordinance to ban leaf blowers from blowing debris into streets in Maricopa County. In addition, 23 local governments have new or existing ordinances to ban leaf blowers from blowing debris into streets.	County, local governments
22. **Implement a leaf blower outreach program.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Leaf blower outreach program required by SB 1552. (A.R.S. § 49-457.01 D., E. and F.) ADEQ produced and distributed 8,000 hard copies of leaf blower fact sheets to six retail leaf blower outlets. ADEQ distributed warning signs for posting on HPA days to leaf blower rental outlets. ADEQ authored an article about the unsafe use of leaf blowers that was published in the Arizona Landscape Contractors Association's (ALCA) Influence magazine. A public-awareness advertisement was published in the ALCA Influence and Southwest Horticulture. ADEQ's leaf blower outreach materials, which were posted on the agency's website, received a total of 11,491 visits. ADEQ adapted and posted a leaf blower training manual, provided by the Outdoor Power Equipment Institute, on ADEQ's website. Those materials received 1,659 unique visits. A number of cities and towns also conduct leaf blower outreach as part of the efforts reported in Committed Measure #1.	State, private sector

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
23. Ban ATV use on high pollution days. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	All terrain vehicle (ATV) ban required by SB 1552. (A.R.S. § 49-457.03) ADEQ distributed HPA forecasts to subscribers and to the U.S. Forest Service, U.S. Bureau of Land Management, Arizona State Land Department, Arizona Game and Fish Department, Arizona State Parks Department, and the Maricopa County Air Quality Department. ADEQ also posted HPA forecasts and warnings on the agency's website and works with television broadcast stations to communicate HPA notices to the public. On February 27, 2009, Fox Motorsports filmed a half-hour program focused on off-highway vehicle (OHV) use and the 5% Plan requirements on High Pollution Advisory Days. Representatives of ADEQ, MCAQD, Arizona Game and Fish, Arizona State Lands, U.S. Bureau of Land Management and the Arizona Rock Products Association were filmed near the Hassayampa River for this program. Broadcast date has not yet been scheduled. ADEQ: "Law enforcement officers who are authorized under Title 28 will enforce this requirement. On Federal Lands, the Federal agency with jurisdiction enforces it".	State
45. Prohibit use of leaf blowers on unstabilized surfaces. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Ordinance required by SB 1552. (A.R.S. § 11-877 A.3. and A.R.S. § 49-457.01 C.) Maricopa County adopted an ordinance to prohibit use of leaf blowers on unstabilized surfaces. In addition, a local government, although not required, adopted this ordinance.	County
46. Outreach to off-road vehicle purchasers.	The Arizona State Parks Department has convened a Dealer Pilot Program Committee to develop printed dust abatement educational materials for off-road vehicle renters/purchasers. ADEQ participates in these committee meetings.	State

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Paved Roads		
24. Sweep street with PM-10 certified street sweepers. Quantified for numeric credit as a contingency measure.	SB 1552 requires that new or renewed contracts for street sweeping on city streets must be conducted with PM-10 certified street sweepers. (A.R.S. § 9-500.04 A.9. and A.R.S. § 49-474.01 A.8.) The 3 local governments that issue street sweeping contracts require that their contractors use PM-10 certified street sweepers. Local governments purchased 8 PM-10 certified street sweepers with CMAQ funds and 3 PM-10 certified street sweepers with other funds. ADOT's current contract for sweeping State Highways does not require use of PM-10 certified street sweepers (one street sweeper is not PM-10 certified). However, when the ADOT street sweeping contract is renewed, the contract will be revised to require that only PM-10 certified street sweepers are to be used.	State, County, local governments
52. Coordinate public transit services with Pinal County.	ADOT has coordinated public transit services with Pinal County. See the following websites for information regarding this coordination: (1) Arizona Rural Transit Needs Study Final Report - May 2008 (http://mpd.azdot.gov/transit/documents/Rural_Transit_Needs_Study_Final_Report_May_2008.pdf) (2) Maricopa 5311 information (http://mpd.azdot.gov/transit/Maricopa.asp).	State
53. Repave or overlay paved roads with rubberized asphalt. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	ADOT repaved 12.5 miles of State Highways with rubberized asphalt pavement (7.29 miles more than the commitment).	State

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Unpaved Parking Lots		
25. Pave or stabilize existing unpaved parking lots. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Ordinance required by SB 1552. (A.R.S. § 9-500.04 A.6. & A.7. and A.R.S. § 49-474.01 A.5. & A.6.) Maricopa County revised parking lot provisions in Rule 310.01 (Fugitive Dust from Non-traditional Sources of Fugitive Dust) to synchronize with SB 1552 requirements. These rule revisions were adopted in March 2008. 23 local governments have new or existing ordinances to require paving or stabilizing existing unpaved parking lots. 212 Maricopa County and local government staff are enforcing the ordinances. Maricopa County performed 186 inspections of unpaved parking lots. One local government: • Paved 39,446 square yards of unpaved parking lots with AC pavement; • Stabilized 45,496 square yards of unpaved parking lots with turf; and • Stabilized 51,524 square yards of unpaved parking lots with a polymer stabilizer. One local government paved/stabilized eight existing town-owned unpaved parking lots with a total surface area of 340,365 square feet.	County, local governments

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Unpaved Roads, Alleys, and Shoulders		
26. Pave or stabilize existing public dirt roads and alleys. Quantified for numeric credit as a contingency measure.	Plan requirements for paving or stabilizing public dirt roads and alleys were amended by SB 1552. (A.R.S. § 9-500.04 A.3. and A.R.S. § 49-474.01 A.4.) In March 2008, Maricopa County adopted Rule 310.01 revisions in regard to unpaved roads and alleys. Maricopa County and 19 local governments have developed or updated plans to pave or stabilize targeted public dirt roads and alleys. Maricopa County and local governments have implemented this measure for: <u>Public Dirt Roads</u> By paving 25.02 miles of public dirt roads (15.07 miles more than the commitments) and stabilizing 36.76 miles of public dirt roads (3.09 miles less than the commitments), with a total of 61.78 miles of public dirt roads paved or stabilized (11.98 miles more than the commitments). <u>Dirt Alleys</u> By paving 65.89 miles of dirt alleys (20.74 miles more than the commitments) and stabilizing 175.71 miles of dirt alleys (69.36 miles more than the commitments) with a total of 241.60 miles of dirt alleys paved or stabilized (90.10 miles more than the commitments). One local government improved 7 intersections by paving turn lanes and/or shoulders.	County, local governments
27. Limit speeds to 15 miles per hour on high traffic dirt roads. Quantified for numeric credit as a contingency measure.	5 local governments have posted 26.30 miles of dirt roads and alleys with 15 mph (or less) speed limit signs (42.30 miles less than the commitments). Note: For Committed Measure #26, jurisdictions paved or stabilized 11.98 more miles of dirt roads and 90.10 more miles of dirt alleys than commitments in the MAG Five Percent Plan for PM-10. The PM-10 emission reductions attributable to paving and stabilizing 102 extra miles of dirt roads and alleys far exceed the benefit of posting lower speed limits on 42 miles of dirt roads and alleys. Several jurisdictions report that all high traffic dirt roads have been paved.	County, local governments

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
28. **Pave or stabilize unpaved shoulders.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Plan requirements to pave or stabilize unpaved shoulders were amended by SB 1552. (A.R.S. § 9-500.04 A.3. and A.R.S. § 49-474.01 A.4.) Maricopa County and 19 local governments have developed or updated plans to pave or stabilize unpaved shoulders on targeted arterials. ADOT, Maricopa County, and local governments implemented this measure by paving 139.13 curb miles of dirt shoulders (107.63 curb miles more than the commitments) and stabilizing 272.81 curb miles of dirt shoulders (59.56 curb miles more than the commitments), with a total of 411.94 curb miles of dirt shoulders paved or stabilized (167.19 curb miles more than the commitments). ADOT added 19.26 curb miles of curb and gutter. One local government improved 7 intersections by paving turn lanes and/or shoulders.	County, State, local governments
43. **MAG allocate $5 million in FY 2007 MAG federal funds matched on a 50/50 basis by MAG member agencies for paving dirt roads and shoulder projects and that these projects be immediately submitted to MAG for consideration at the July meetings of the MAG Management Committee and Regional Council for an amendment to the Transportation Improvement Program. These funds would be on a nonsupplanting basis for new projects.** Quantified for numeric credit as a contingency measure.	$5 million is programmed in the FY 2007-2011 MAG Transportation Improvement Program to fund 9 projects that pave dirt roads and shoulders in the PM-10 nonattainment area.	MAG, local governments
51. **Conduct an inventory of dirt roads, alleys and estimated traffic counts.**	The City of El Mirage developed a preliminary inventory of unpaved roads in its jurisdiction. In addition, other local governments, although not required, developed preliminary inventories of their unpaved roads.	local government

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Unpaved Surfaces		
29. Create a fund for paving and stabilizing in high pollution areas.	Four of Maricopa County's settlement agreements for air quality violations included supplemental environmental projects.	County
40. MAG member agencies reexamine existing ordinances to ensure that nonpermitted sources, such as unpaved parking, unpaved staging areas, unpaved roads, unpaved shoulders, vacant lots and open areas, receive priority attention.	One local government re-examined existing ordinances to ensure non-permitted sources received priority attention.	MAG member agencies
Vacant Lots		
30. Strengthen and increase enforcement of 310.01 for vacant lots. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Maricopa County hired a supervisor to oversee the vacant lot program. This staff position was also included in the data provided for Committed Measures #4 and #9. Maricopa County conducted 5,005 vacant lot inspections.	County
31. Restrict vehicular use and parking on vacant lots. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Ordinance required by SB 1552. (A.R.S. § 9-500.04 A.8. and A.R.S. § 49-474.01 A.7.) In February 2008, Maricopa County adopted the P-27 Vehicle Parking and Use on Unstabilized Vacant Lots Ordinance. In addition, 23 local governments have new or existing ordinances to prohibit vehicle trespass on vacant land.	County, local governments

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
32. Enhanced enforcement of trespass ordinances and codes. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	In February 2008, Maricopa County adopted the P-28 Off-Road Vehicle Use in Unincorporated Areas of Maricopa County and P-27 Vehicle Parking and Use on Unstabilized Vacant Lots ordinances. In addition, 18 local governments report increased enforcement of vehicle trespass ordinances and codes for vacant lots.	County, local governments
33. Ability to assess liens on parcels to cover the costs of stabilizing them (Recover costs of stabilizing vacant lots). Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	SB 1552 requires rule revisions for stabilization of disturbed surfaces of vacant lots. (A.R.S. § 49-474.01 A.11.) Maricopa County adopted Rule 310.01 revisions in March 2008 to incorporate A.R.S. § 49-474.01 A.11. to allow the County to recover stabilization costs through the penalty process.	County
Open Burning / Woodburning		
34. Increase fines for open burning. Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	SB 1552 requires increasing the fines for unlawful open burning. (A.R.S. § 11-871 D.4. and A.R.S. § 49-501 G.) In March 2008, Maricopa County revised the Residential Woodburning Restriction Ordinance to increase the civil penalty to $250 for the fourth or any subsequent violation of the ordinance in accordance with Senate Bill 1552. Maricopa County responded to 158 illegal open burning complaints and 30 wrongful fireplace use complaints which resulted in 11 documented violations of Rule 314 (Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments) and 20 warnings for violations of Ordinance P- 26 (Residential Woodburning Restriction Ordinance).	State, County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
35. **Restrict use of outdoor fireplaces and pits and ambience fireplaces in the hospitality industry.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	SB 1552 requires Maricopa County to prohibit use of wood-burning chimineas, outdoor fire pits, and similar outdoor fires on County No-Burn Days. (A.R.S. § 49-501 F.) In March 2008, Maricopa County adopted revisions to P-26 (Residential Woodburning Restriction Ordinance) and Rule 314 (Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments) to restrict use of outdoor fireplaces and pits and ambience fireplaces in the hospitality industry.	State, County
47. **Ban open burning during the ozone season.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Open burning ban from May 1 through September 30 each year required by SB 1552. (A.R.S. § 49-501 A.2.) Maricopa County implemented an open burning ban during the ozone season by adding these requirements to Rule 314 (Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments) and to P-26 (Residential Woodburning Restriction Ordinance).	County
48. **Require residential woodburning ordinances to include no burn restrictions on high pollution advisory days.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Revision of County ordinance required by SB 1552. (A.R.S. § 11-871 B.) The "no burn restrictions on HPA days" was already a requirement in Maricopa County's Residential Woodburning Restriction ordinance. Note: Maricopa County revisions to the Residential Woodburning Ordinance, adopted in March 2008, pertained to Committed Measure #35. See Committed Measure #34 for data on complaints received by the County in regard to open burning and wrongful fireplace use.	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
Agriculture		
41. Forward to the Governor's Agricultural Best Management Practices Committee that cessation of tilling be required on high wind days and that agricultural best management practices be required in existing Area A.	Agricultural Best Management Practices required in Area A by SB 1552. (A.R.S. § 49-457 H. & N.6. and A.R.S. § 49-542 Sec. 20.) On September 25, 2007, the Governor's Agricultural Best Management Practices (BMP) Committee revised its rule to double the number of BMPs that farmers must implement, added 5 BMP choices (including cessation of tilling on High Pollution Advisory Days), and expanded the area for BMPs. Arizona State Rules 18-2-610 and 611 were revised, effective November 14, 2007, to comply with Senate Bill (SB) 1552. The Legislature adopted a requirement in SB 1552 that expanded the regulated area for Agricultural BMPs to include the portion of Area A in Maricopa County and increased the number of required Agricultural BMPs from one to two from each category by December 31, 2007.	State
42. The Arizona State Legislature provide funding to the Arizona Department of Environmental Quality for four agriculture dust compliance officers for a total of five inspectors.	According to ADEQ information provided to MAG for the Five Percent Plan, the Legislature provided funding for two additional agriculture dust compliance officers.	State
50. Require two agricultural best management practices. Quantified for numeric credit as a contingency measure.	Required by SB 1552. (A.R.S. § 49-457 H. & N.6. and A.R.S. § 49-542 Sec. 20.) Arizona State Rules 18-2-610 and 611 were revised, effective November 14, 2007, to comply with Senate Bill (SB) 1552. The Legislature adopted a requirement in SB 1552 that expanded the regulated area for Agricultural BMPs to include the portion of Area A in Maricopa County and increased the number of required Ag BMPs from one to two from each category by December 31, 2007.	State

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
All Sources		
44. **Maricopa County should increase consistent enforcement in areas where PM-10 violations continue to occur, along with efforts throughout the region. When an area continually experiences higher PM-10 concentrations than other areas, increased enforcement in areas experiencing high monitor readings is needed to protect public health.** Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	Maricopa County has increased consistent enforcement in areas where PM-10 violations continue to occur. In March 2008, Maricopa County revised Rule 280 (Fees) to cover increased staffing levels for the MCAQD as a result of Maricopa County's Five Percent Plan commitments.	County

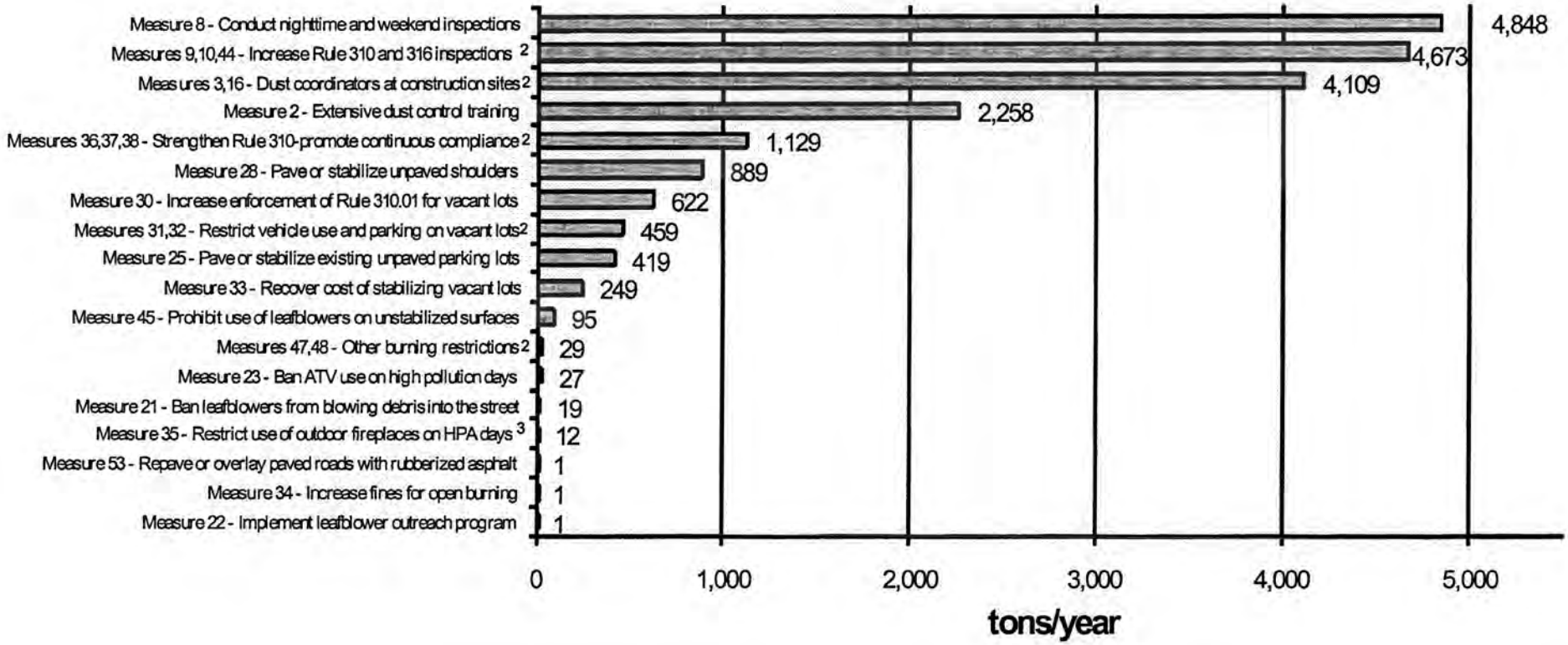
Table 2, on the following page, lists additional policies and actions that the Maricopa County Air Quality Department (MCAQD) initiated during 2009 (as described in a September 22, 2009 letter) to further reduce particulate emissions.

TABLE 2
ADDITIONAL POLICIES AND ACTIONS INITIATED BY MCAQD IN 2009

In a September 22, 2009 letter, the Maricopa County Air Quality Department indicated that, in addition to other measures, the following new policies are being initiated during 2009 to further reduce particulate emissions:

1.	Daily follow up inspections at each stationary source that has been issued an emissions related violation notice until the source demonstrates compliance.
2.	Increased stationary source inspection frequency.
3.	Dedicated funded account and active contract for sweeper clean up of any trackout identified by a field inspector.
4.	Implementation of an Assistant Inspector program, wherein air monitoring personnel are trained to identify potential fugitive dust emission issues and stationary source emissions and relay the observation to field inspectors.
5.	Aerial inspection program on selected HPA days coordinated with field personnel for prompt investigation of aerial observations of dust emissions.
6.	Revision to the Enforcement Penalty program calling for maximum penalties for emission violations on NAAQS exceedance days.
7.	Proposed particulate speciation study at selected air monitoring sites exceeding the NAAQS specifically focused on speciated particulates on HPA and NAAQS exceedance days.
8.	Critical area inspection program focusing increased localized field site inspections concentrated in and around air monitoring sites when the PM levels exceed 125 $\mu g/m^3$.
9.	Targeted department PM NAAQS task force charged with developing effective field controls on potential sources of PM around air monitoring sites.
10.	Focused education notice concerning all businesses and residences within ½ mile of all monitoring sites, advising of the department's focus on PM regulations and controls.
11.	Review and development of an improved PM emission inventory on HPA and NAAQS days; looking to move the inventory from a paper inventory to a field inventory.
12.	Proposed focused regulation development of sources impacting air monitors exceeding PM NAAQS; e.g. auto crushing and reclamation rule for the West 43rd Avenue monitor.
13.	Proposed area stabilization programs with localized focus in and around air monitors.
14.	Regular area source inspections program localized around air monitoring stations exceeding NAAQS.

Figure 1
Reductions in 2010 for Committed Control Measures in the Five Percent Plan for PM-10[1]

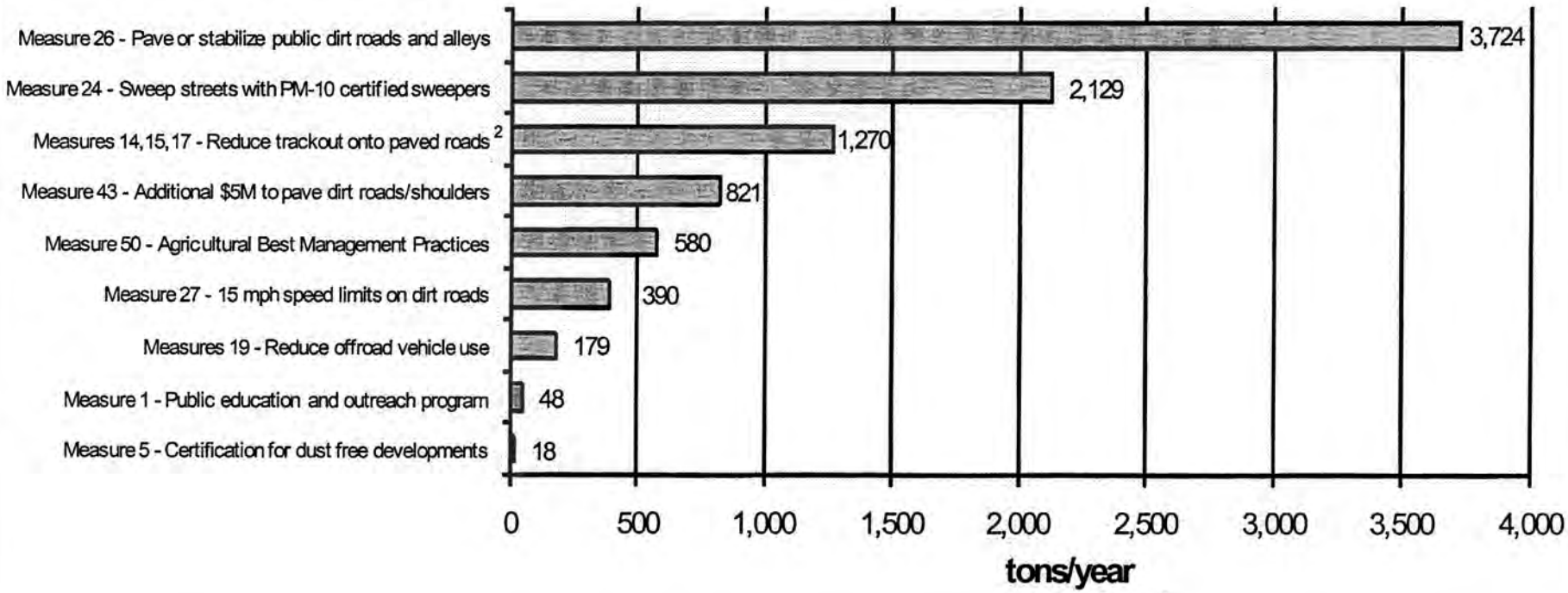


[1]Committed measures quantified for numeric credit to meet the five percent per year target and demonstrate attainment.

[2]In these cases, the emission reductions represent the combined impact of multiple, reinforcing measures.

[3]HPA days = high pollution advisory days

Figure 2
Reductions in 2010 for Contingency Measures in the Five Percent Plan for PM-10[1]



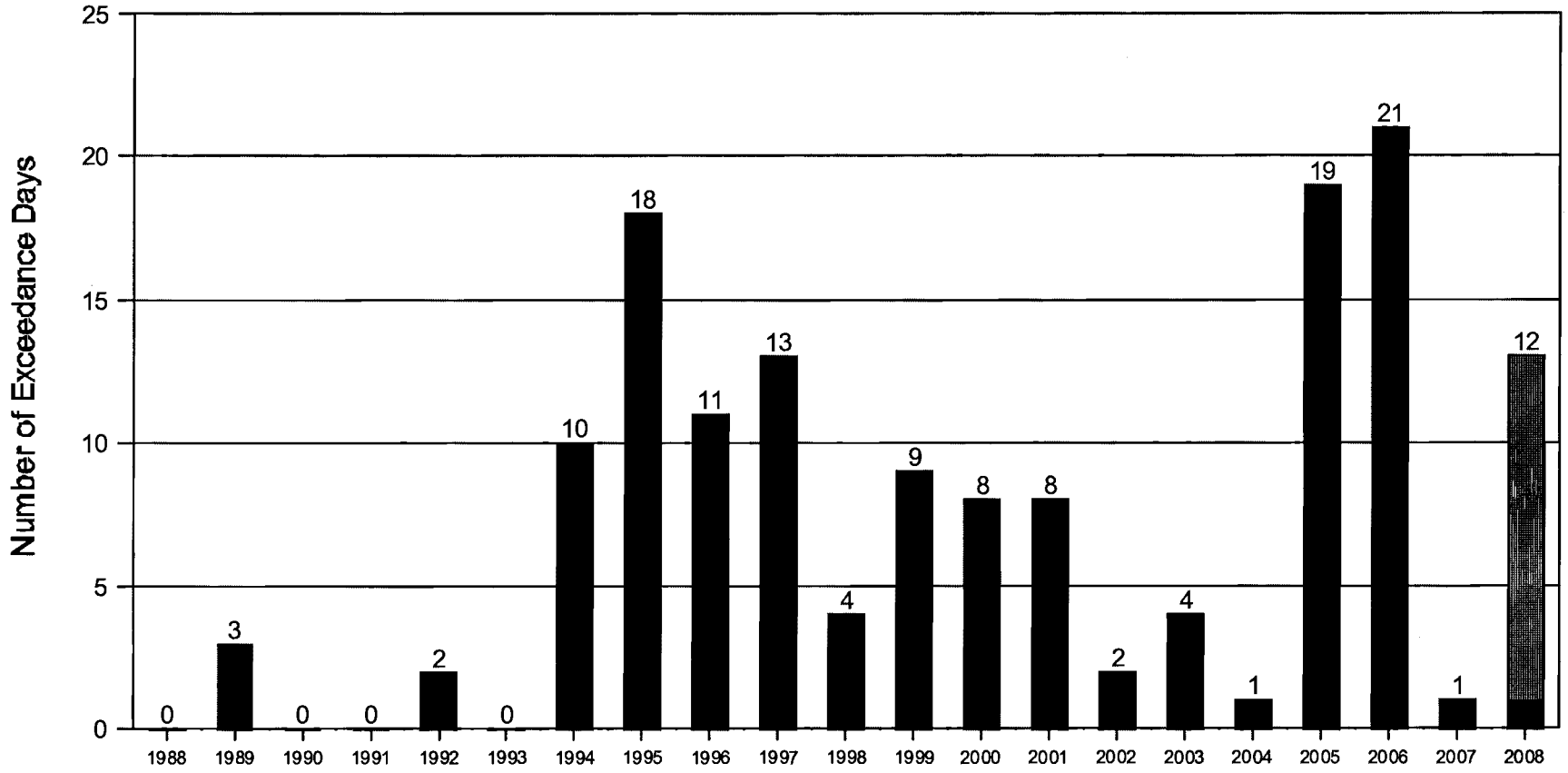
[1]Committed measures quantified for numeric credit as contingency measures.

[2]For "Reduce trackout onto paved roads," the emission reduction represents the combined impact of Measures 14,15 and 17.

Figure 3

PM-10 Monitoring Data

Days Exceeding the 24-Hour PM-10 Standard in Maricopa County



Notes:

1. The hatched area represents 11 exceedance days in 2008 that ADEQ has documented as exceptional/natural events, but have not been approved by EPA.
2. Most of the exceedances before 2004 were recorded by filter-based monitors that measured PM-10 concentrations on every sixth day. Since 2004, the filter-based monitors that exceeded the PM-10 standard have been replaced with monitors that measure PM-10 concentrations every day.
3. The 2007 exceedance occurred at the Buckeye monitor, which is outside of the PM-10 nonattainment area.
4. The 2008 exceedance occurred at the Durango Complex monitor.

ATTACHMENT

MAG 2007 FIVE PERCENT PLAN FOR PM-10 FOR THE MARICOPA COUNTY NONATTAINMENT AREA

EXECUTIVE SUMMARY

MAG 2007 FIVE PERCENT PLAN FOR PM-10 FOR THE MARICOPA COUNTY NONATTAINMENT AREA

EXECUTIVE SUMMARY

MAG 2007 FIVE PERCENT PLAN FOR PM-10
EXECUTIVE SUMMARY

Within the Maricopa County nonattainment area, the National Ambient Air Quality Standard has not yet been attained for PM-10 particulate pollution. The Maricopa Association of Governments was designated by the Governor of Arizona in 1978 and recertified by the Arizona Legislature in 1992 to serve as the Regional Air Quality Planning Agency to develop plans to address air pollution problems.

Based upon the 1990 Clean Air Act Amendments, the Maricopa County nonattainment area was initially classified as Moderate for PM-10 particulate pollution. However, on May 10, 1996, the nonattainment area was reclassified to Serious due to failure to attain the particulate standard by December 31, 1994. The Serious Area reclassification was effective on June 10, 1996.

The Revised MAG 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area was submitted to the Environmental Protection Agency (EPA) in February 2000. On July 25, 2002, EPA published a notice of final approval for the plan. Collectively, the plan contained approximately seventy-seven committed control measures from the State and local governments. The plan demonstrated attainment of the PM-10 standard by December 31, 2006.

In order to be in attainment, the region needed three years of clean data at the monitors for 2004, 2005, and 2006. However, there were numerous exceedances of the 24-hour standard in 2005 and 2006. On June 6, 2007, EPA published a final notice with its findings that the Maricopa County nonattainment area had failed to attain the PM-10 standard by the federal deadline of December 31, 2006.

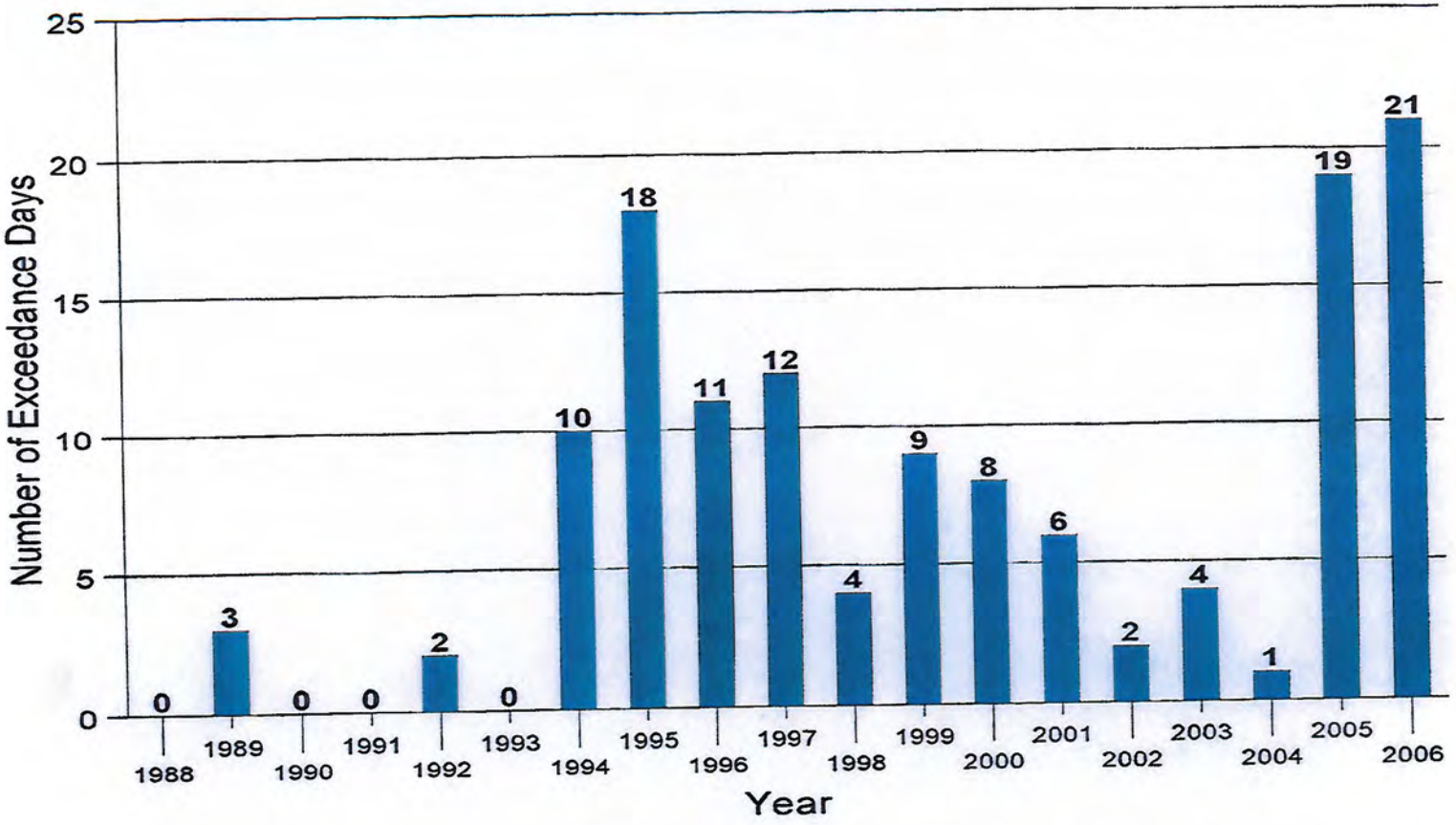
In accordance with Section 189 (d) of the Clean Air Act, the Five Percent Plan for PM-10 is due to the Environmental Protection Agency by December 31, 2007. The plan is required to reduce PM-10 emissions by at least five percent per year until the standard is attained as measured by the monitors. The Clean Air Act specifies that the plan must be based upon the most recent emissions inventory for the area and also include a modeling demonstration of attainment.

Particulate air pollution can occur throughout the year. The formation of PM-10 particulate pollution is dependent upon several factors. Among these factors are stagnant masses, severe temperature inversions in the winter, high winds in the summer, and fine, silty soils characteristic of desert locations. In the Maricopa County nonattainment area, particulate matter (PM-10) concentrations are elevated during various seasons of the year and under different weather conditions. The variability is due to the diverse composition of PM-10 and the sources contributing to this diversity.

The trend in PM-10 levels for the Maricopa County nonattainment area is presented in Figure ES-1. The 24-hour PM-10 standard is 150 micrograms per cubic meter. In 2004,

FIGURE ES-1

NUMBER OF 24-HOUR PM-10 EXCEEDANCE DAYS



Note: The Arizona Department of Environmental Quality began flagging natural and exceptional events in 2004. Exceedances that have been approved or are pending approval by EPA as natural or exceptional events have been removed from this chart.

Sources: 1988 - 1997 - Revised MAG 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area, February 2000.
1998 - 2006 - EPA Air Quality System; Maricopa County Network Reviews; ADEQ Air Quality Reports.

there was one exceedance day of the 24-hour standard. However, in 2005 there were 19 exceedance days and in 2006 there were 21 exceedance days of the 24-hour standard. Figure ES-2 indicates the monitors where exceedances occurred. The violations of the standard at the Bethune Elementary School, Durango Complex, and West 43rd Avenue monitors caused the region to fail to attain the PM-10 standard by the December 31, 2006 attainment date.

A rigorous planning effort was conducted to prepare the MAG 2007 Five Percent Plan for PM-10. An extensive Preliminary Draft Comprehensive List of Measures was compiled for evaluation. The MAG Analysis of Particulate Control Measure Cost Effectiveness report provided an evaluation of forty-six control measures. For each measure, the following information was prepared: narrative description; suggested implementing entity; estimate of the cost of implementation; estimate of the PM-10 emission reduction potential; estimate of the cost effectiveness ($/ton of PM-10 reduced); and discussion of implementation issues and comments. In preparing the information for the analysis, measures from other PM-10 Serious Areas were reviewed and contacts were established. Relevant dust control literature reviews were performed to obtain data on measured emission reductions. Contacts were established with local agencies and businesses in Maricopa County to determine the cost of labor, equipment, materials, etc.

The MAG PM-10 Source Attribution and Deposition Study was another major study which provided information for the evaluation of control measures. The study was designed to identify the sources of emissions contributing to violations of the PM-10 standard at monitors in the nonattainment area during stagnant conditions and characterize the deposition of PM-10 particles emitted by these sources. The MAG consultants for the study were T&B Systems and Sierra Research. The key questions addressed in the study were:

1. Where are the specific source areas and/or sources in the Salt River region that contribute to the particulate matter (PM) loading at the Durango Complex and West 43rd monitoring sites?

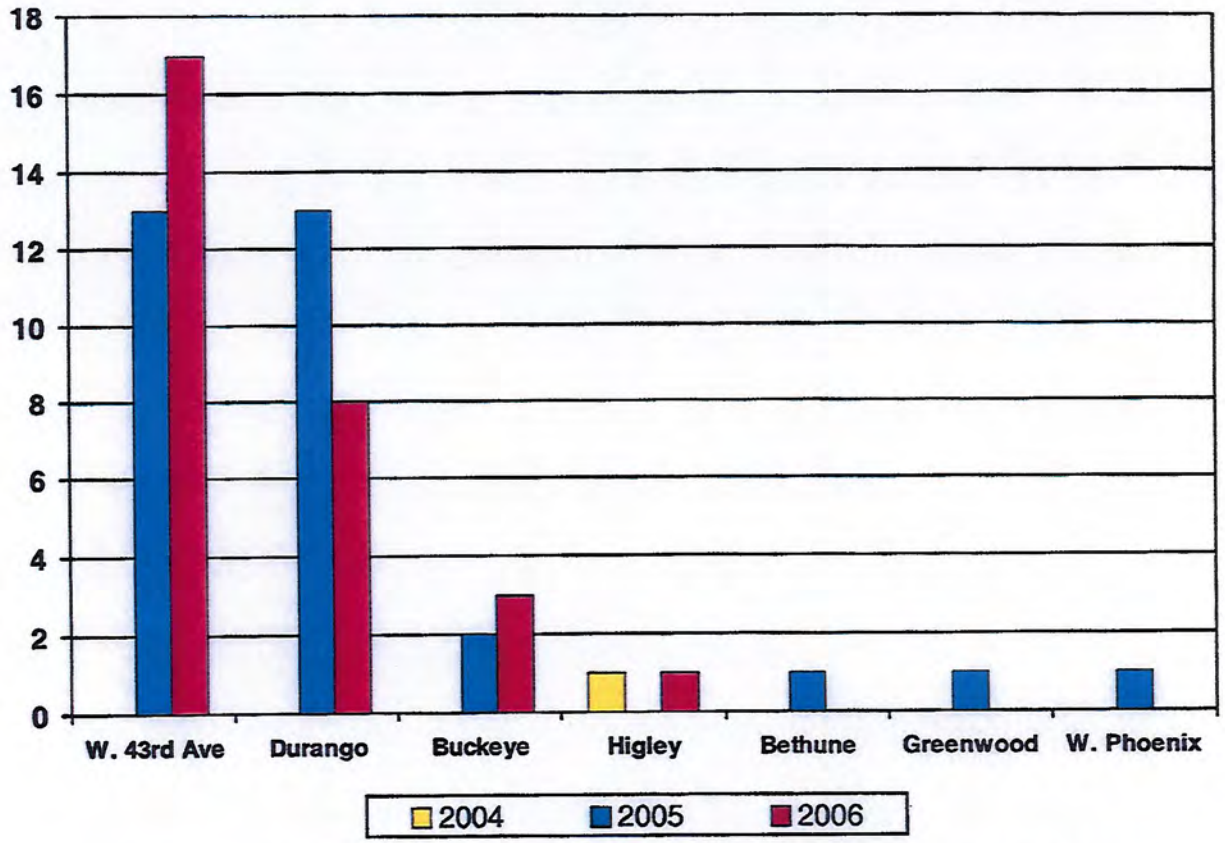
2. To obtain useful results from models such as AERMOD, can the regional particle size distribution be characterized on an area basis (i.e., is there an area of uniformity that can be generalized?)

3. What are the causes of heavy PM loading during the morning hours at the Durango and West 43rd monitors? Are the diurnal variations of PM-10 and peaks due to reentrainment of paved road dust, or due to other activities in the surrounding areas that are coincident with traffic peaks?

The approach used for the study involved assessing existing meteorological and PM data; selecting monitoring tools; establishing a sampling plan; defining routes for mobile sampling; determining locations of meteorological data collection; selecting locations to investigate dispersion of roadway sources; conducting sampling in two phases;

FIGURE ES-2

EXCEEDANCES OF THE 24-HOUR PM-10 STANDARD AT MONITORS IN MARICOPA COUNTY



Notes: 1. Exceedances are based on data from the EPA Air Quality System (AQS). Exceedances due to natural events have been removed from the AQS by EPA.

2. The exceedance at the Bethune, Greenwood, and W. Phoenix monitors occurred on 12/12/05.

coordinating with local agencies for related data; and performing daily review of collected data to identify insights, opportunities and problems. The monitoring tools for the study included: a particle lidar; mobile monitoring; DustTrak optical PM-10 monitors; DustTrak optical PM-2.5 monitors; an aerodynamic particle size analyzer; MiniVol filter based samplers; a sodar; and a SCAMPER vehicle. The SCAMPER (System for Continuous Aerosol Monitoring of Particulate Emissions from Roadways) vehicle was used to measure PM-10 from paved roads. From November 15, 2006 through December 14, 2006, extensive measurements were taken in the Salt River area using state-of-the-art technologies.

In general, the study identified a number of sources of PM-10 in the Salt River area. They included: trackout; dragout from unpaved or poorly maintained paved roads or parking lots; unpaved shoulders; unpaved roads; open burning; agriculture; and vehicle activity on unpaved parking areas and vacant lots. Preliminary results from the study were used in the evaluation of control measures and the final results were used in the modeling attainment demonstration.

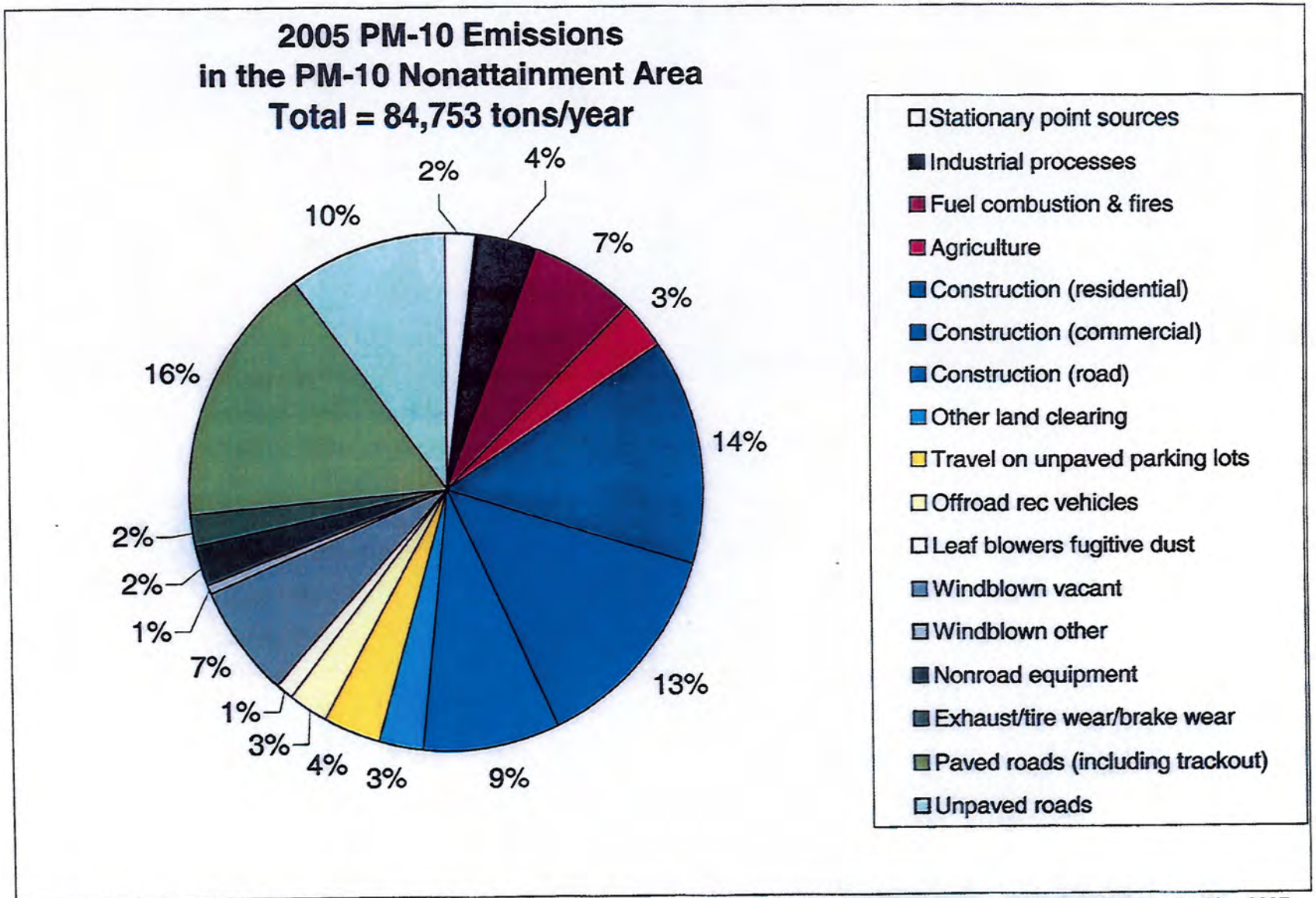
Based upon the Maricopa County Air Quality Department 2005 Periodic Emissions Inventory for PM-10 for the Maricopa County Nonattainment Area, the primary sources of PM-10 are: Paved Roads (including trackout) 16 percent; Construction (residential) 14 percent; Construction (commercial) 13 percent; Unpaved Roads 10 percent; Construction (road) 9 percent; Fuel Combustion and Fires (industrial natural gas and fuel oil, commericial/institutional natural gas and fuel oil, and residential natural gas, wood and fuel oil) 7 percent; and Windblown Vacant (vacant lots) 7 percent. The sources are depicted in Figure ES-3.

The emissions in the 2005 Periodic Emissions Inventory for PM-10 were projected to 2007, 2008, 2009, and 2010. The total controlled emissions of 97,436 tons in the 2007 projected inventory were used to calculate the five percent reduction target in emissions (see Figure ES-4). This number was multiplied by five percent to determine the PM-10 emissions reduction target of 4,872 tons per year. To meet this annual target, the 2008 emissions with committed control measures must be at least 4,872 tons less than the base case 2008 emissions; the controlled 2009 emissions must be at least 9,744 tons less than the 2009 base case emissions; and the controlled 2010 emissions must be at least 14,616 tons less than the 2010 base case emissions.

In order to reduce PM-10, a broad range of commitments to implement measures were received from the State, Maricopa County, and the twenty-three local governments in the PM-10 nonattainment area. Collectively, the MAG 2007 Five Percent Plan for PM-10 includes fifty-three committed measures.

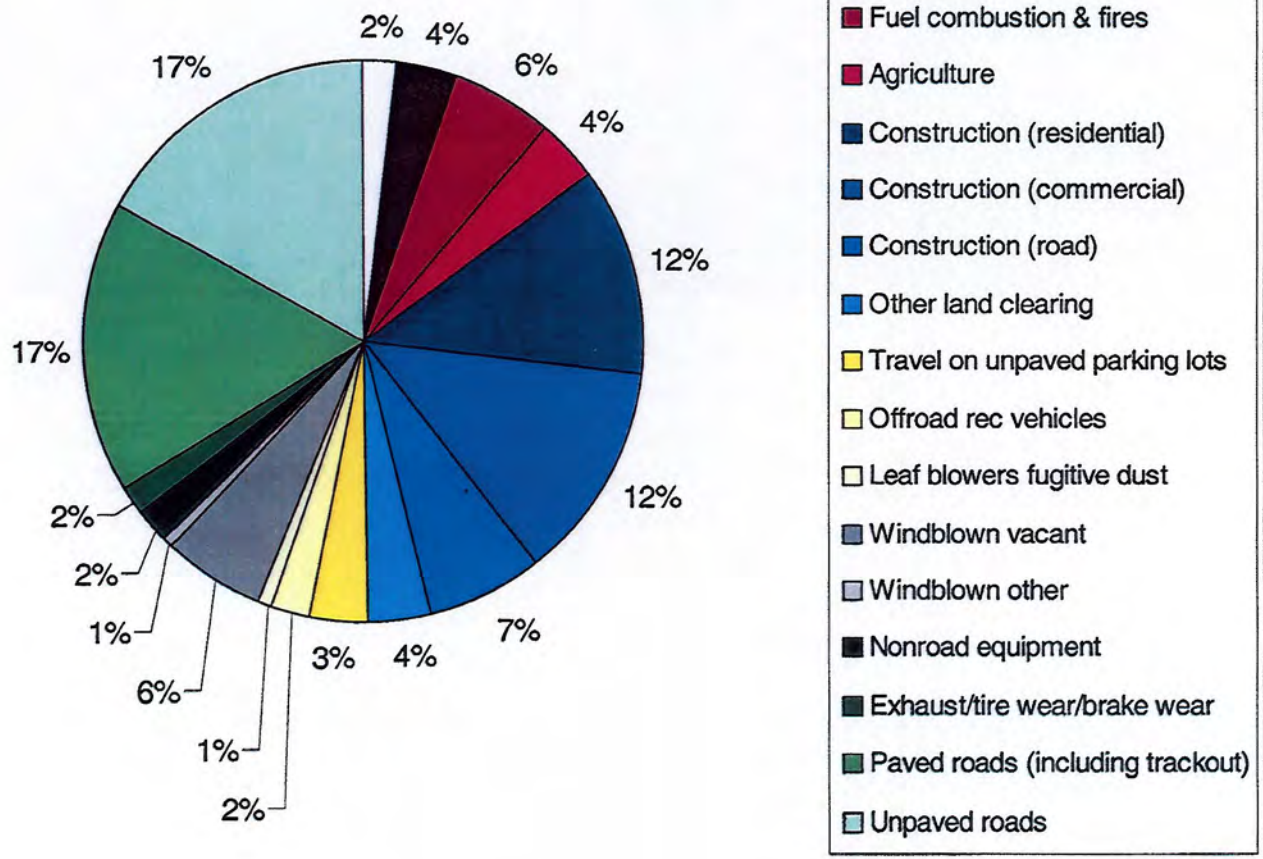
The key committed measures that were quantified as control measures include: Dust Managers/Coordinators at Earthmoving Sites; Increase Rule 310 and 316 Inspections; Extensive Dust Control Training; Conduct Nighttime and Weekend Inspections; Strengthen Rule 310 to Promote Continuous Compliance; Pave or Stabilize Dirt Shoulders; Pave or

FIGURE ES-3



Source: 2005 Periodic Emissions Inventory for the Maricopa County, Arizona Nonattainment Area. Maricopa County Air Quality Department. May 2007.

Figure ES-4
2007 PM-10 Emissions
with Committed Control Measures
Total = 97,436 tons/year



Source: Maricopa Association of Governments, 2007

Stabilize Unpaved Parking Lots; Restrict Vehicle Use on Vacant Lots; Strengthen Rule 310.01 for Vacant Lots; and Recover the Cost of Stabilizing Vacant Lots.

The committed control measures were quantified in order to model attainment and meet the five percent reduction targets. The PM-10 emissions reductions for the committed control measures are shown in Figure ES-5.

With the implementation of the committed control measures, the total PM-10 emissions in 2010 are 82,829 tons (See Figure ES-6), which represents a 19.3 percent reduction in the 2010 base case emissions. These reductions are necessary to model attainment of the PM-10 standard at all monitors as expeditiously as practicable, which is 2010. The total reductions due to the committed control measures also exceed the annual five percent reduction targets in 2008, 2009 and 2010, as indicated in Table ES-1.

In accordance with the Clean Air Act, the MAG 2007 Five Percent Plan for PM-10 also contains contingency measures. The contingency measures are committed measures in the adopted plan which achieve emissions reductions beyond those measures relied upon to model attainment of the standard and demonstrate progress toward attainment (i.e., five percent reductions, reasonable further progress, and milestones).

The key committed measures in the Five Percent Plan that were quantified as contingency measures are: Pave or Stabilize Dirt Roads and Alleys; Sweep with PM-10 Certified Street Sweepers; Reduce Trackout Onto Paved Roads; Additional Five Million Dollars in FY 2007 MAG Federal Funds for Paving Dirt Roads and Shoulders; Agricultural Best Management Practices; 15 Mile Per Hour Speed Limits on Dirt Roads; Reduce Offroad Vehicle Use; Certification for Dust Free Developments; and Public Education and Outreach Program.

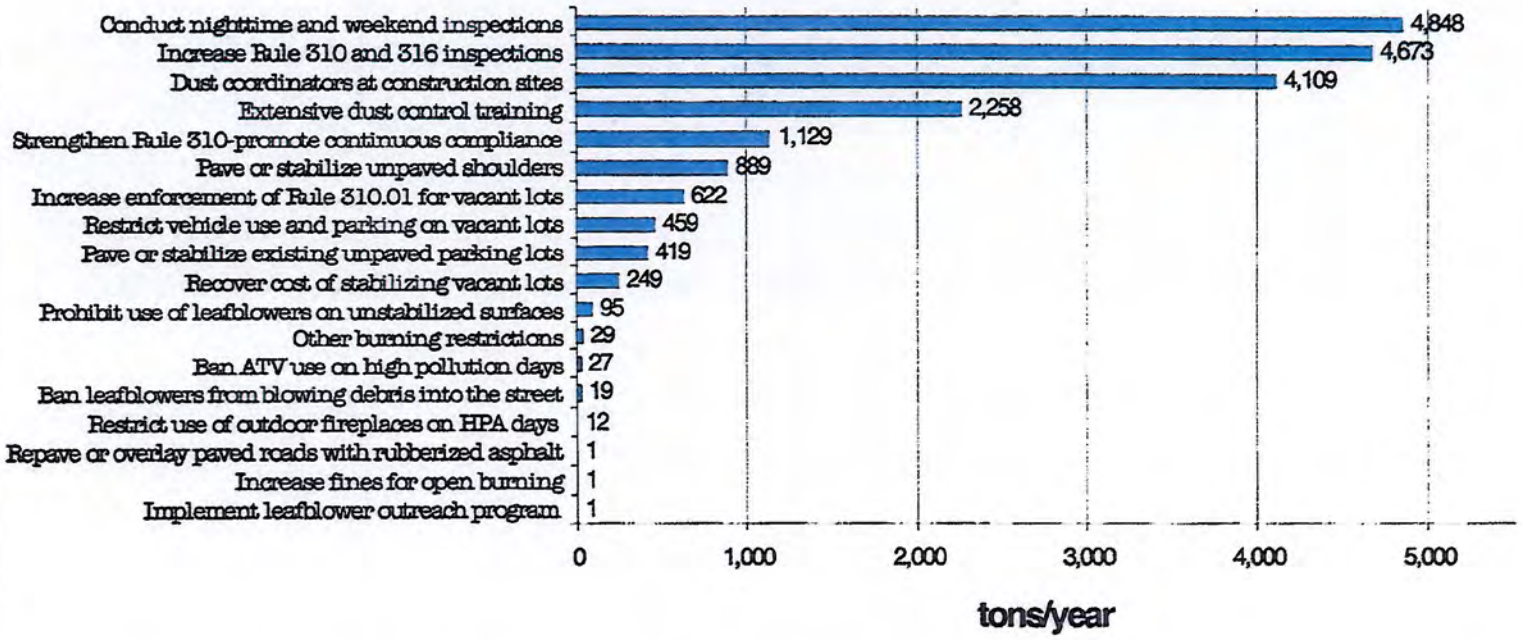
EPA guidance indicates that contingency measures should provide emissions reductions equivalent to one year of reasonable further progress. The reasonable further progress requirements for Serious PM-10 nonattainment areas are included in Section 189(c) of the Clean Air Act. For the Five Percent Plan, one year of reasonable further progress is equivalent to a reduction in PM-10 emissions of 4,869 tons.

Figure ES-7 shows the impacts of the individual contingency measures in 2010. Collectively, the contingency measures reduce PM-10 emissions by 5,223 tons in 2008, 7,213 tons in 2009, and 9,159 tons in 2010 versus the contingency target of 4,869 tons per year, as shown in Table ES-1.

The total 2010 PM-10 emissions with committed control measures and committed contingency measures are 73,670 tons (see Figure ES-8). Together, these measures reduce base case PM-10 emissions by 28.2 percent in 2010.

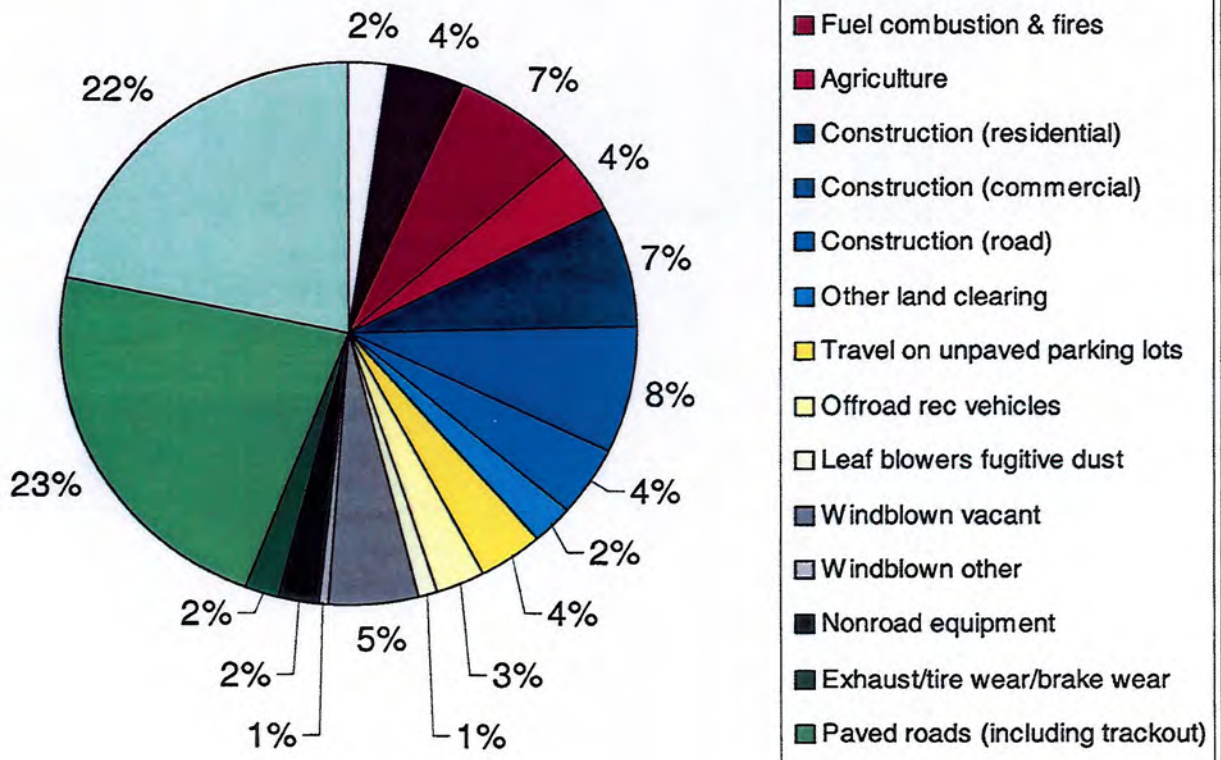
For conformity analyses, the onroad mobile source emissions budget includes reentrained dust from travel on paved roads; vehicular exhaust, tire wear, and brake wear; travel on unpaved roads; and road construction. In 2010, the PM-10 emissions from these four source categories total 103.3 metric tons per day. This represents the onroad mobile source emissions budget for conformity.

Figure ES-5
Reductions in 2010 for Committed Control Measures in the Five Percent Plan for PM-10



Source: Maricopa Association of Governments, 2007

Figure ES-6
2010 PM-10 Emissions
with Committed Control Measures
Total = 82,829 tons/year
(19.3% reduction)



Source: Maricopa Association of Governments, 2007

TABLE ES-1

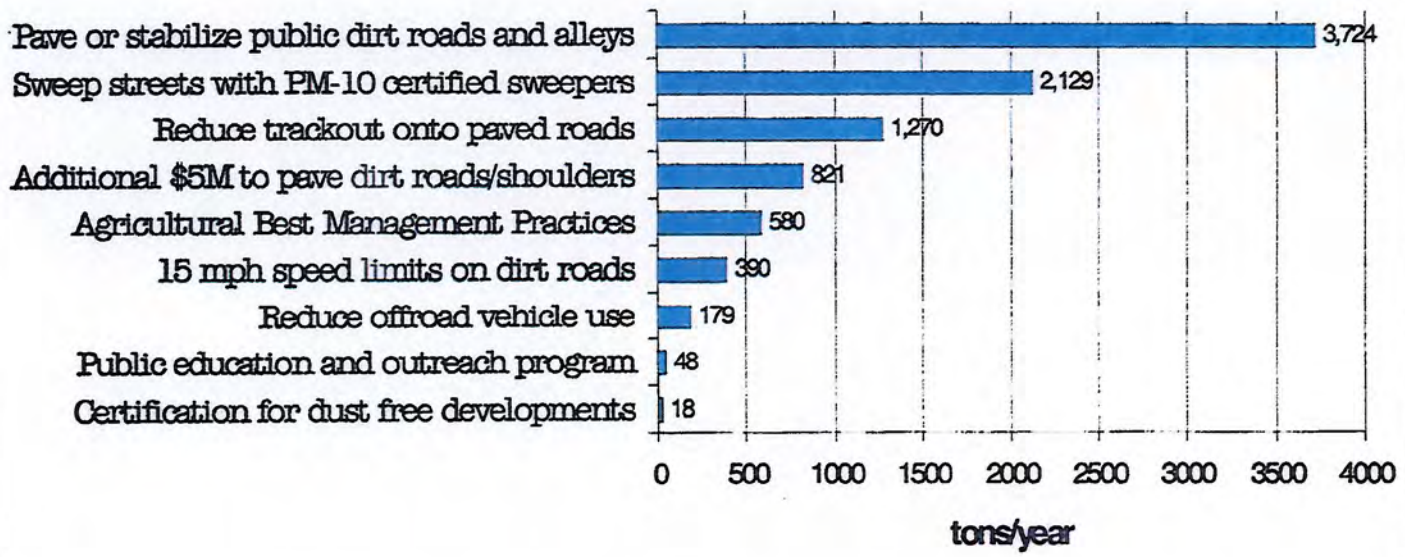
EMISSIONS REDUCTIONS FOR COMMITTED CONTROL MEASURES QUANTIFIED TO MODEL ATTAINMENT AND MEET THE FIVE PERCENT REDUCTION REQUIREMENT

- 6,605 tons vs. five percent reduction target of 4,872 tons in 2008
- 15,423 tons vs. five percent reduction target of 9,744 tons in 2009
- 19,840 tons vs. five percent reduction target of 14,616 tons in 2010

EMISSIONS REDUCTIONS FOR COMMITTED CONTINGENCY MEASURES QUANTIFIED TO MEET THE CONTINGENCY MEASURE REQUIREMENT

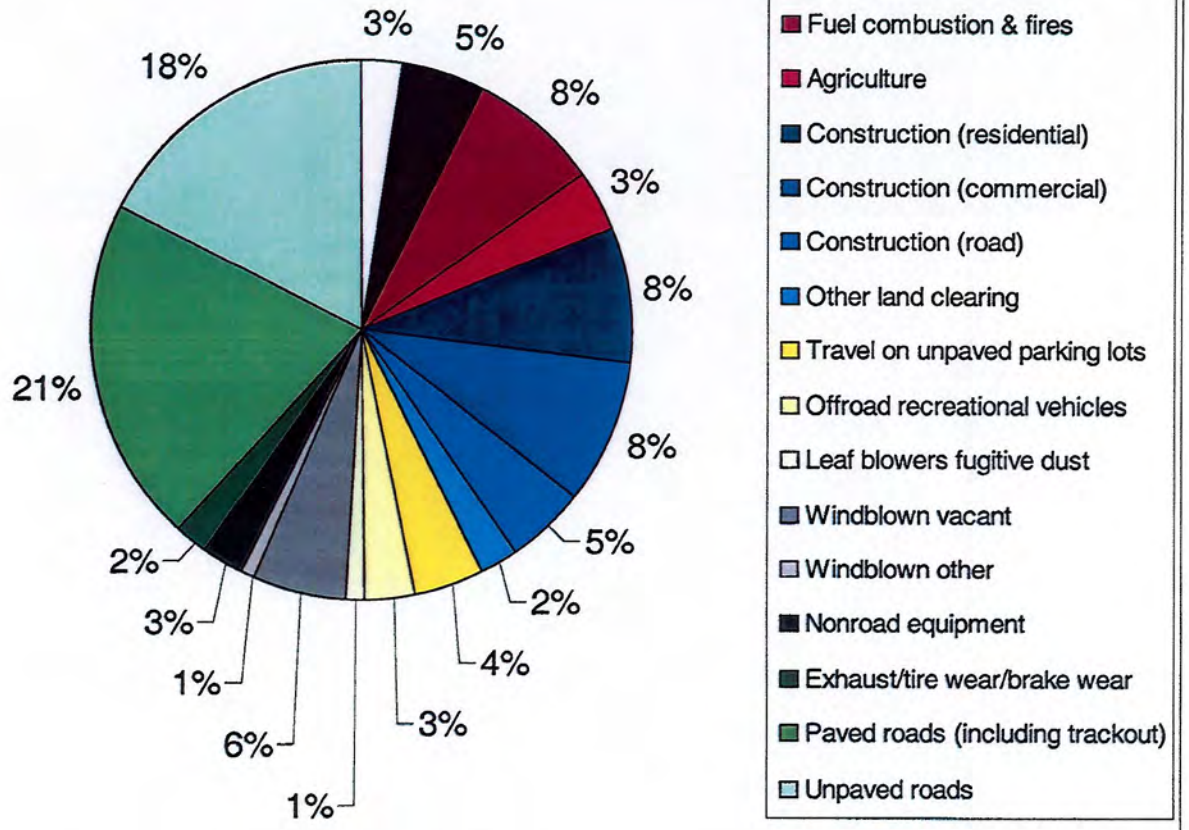
- 5,223 tons vs. contingency reduction target of 4,869 tons in 2008
- 7,213 tons vs. contingency reduction target of 4,869 tons in 2009
- 9,159 tons vs. contingency reduction target of 4,869 tons in 2010

Figure ES-7
Reductions in 2010 for Contingency Measures
in the Five Percent Plan for PM-10



Source: Maricopa Association of Governments, 2007

Figure ES-8
2010 PM-10 Emissions
with Committed Control and Contingency Measures
Total = 73,670 tons/year
(28.2% reduction)



Source: Maricopa Association of Governments, 2007

Agenda Item #6

FACT SHEET
PROPOSAL TO REVISE THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE

SUMMARY OF ACTION

Proposed ozone standards

- On January 6, 2010, EPA proposed to strengthen the national ambient air quality standards (NAAQS) for ground-level ozone, the main component of smog. The proposed revisions are based on scientific evidence about ozone and its effects on people and the environment.

- EPA is proposing to strengthen the 8-hour "primary" ozone standard, designed to protect public health, to a level within the range of 0.060-0.070 parts per million (ppm).

- EPA is also proposing to establish a distinct cumulative, seasonal "secondary" standard, designed to protect sensitive vegetation and ecosystems, including forests, parks, wildlife refuges and wilderness areas. EPA is proposing to set the level of the secondary standard within the range of 7-15 ppm-hours.

- The proposed revisions result from a reconsideration of the identical primary and secondary ozone standards set at 0.075 ppm in 2008.

- EPA is reconsidering the ozone standards to ensure that two of the nation's most important air quality standards are clearly grounded in science, protect public health with an adequate margin of safety, and protect the environment. The ozone standards set in 2008 were not as protective as recommended by EPA's panel of science advisors, the Clean Air Scientific Advisory Committee (CASAC). The proposed standards are consistent with CASAC's recommendations.

- The proposal to strengthen the primary standard places more weight on key scientific and technical information, including epidemiological studies, human clinical studies showing effects in healthy adults at 0.060 ppm, and results of EPA's exposure and risk assessment.

- The proposal to set a distinct secondary standard places more weight on the importance of a biologically relevant standard by recognizing that cumulative, seasonal exposure to ozone harms sensitive vegetation.

- EPA will take public comment for 60 days following publication of the proposal in the Federal Register. The agency also will hold public hearings on the proposal in the following three locations:

    - February 2, 2010
        - Arlington, Va.
        - Houston, Texas
    - February 4, 2010
        - Sacramento, Calif.

- EPA will issue final standards by August 31, 2010.

Review of Science: Public Health

- Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and adults with lung disease.

- Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma or other lung diseases. Ozone exposure also has been associated with increased susceptibility to respiratory infections, medication use, doctor visits, and emergency department visits and hospital admissions for individuals with lung disease.

- Ozone exposure also increases the risk of premature death from heart or lung disease.

- Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors, which increases their exposure.

Review of Science: Public Welfare

- Scientific evidence shows that repeated exposure to ozone during the growing season damages sensitive vegetation. Cumulative ozone exposure can lead to reduced tree growth; visibly injured leaves; and increased susceptibility to disease, damage from insects and harsh weather.

- Sensitive plant species that are potentially at increased risk from ozone exposure include trees such as black cherry, quaking aspen, ponderosa pine and cottonwood. These trees are found across the United States, including in protected parks and wilderness areas.

Review of Science: Technical Record

- The reconsideration is based on the scientific and technical record used in the March 2008 review, which included more than 1,700 scientific studies.

- In this reconsideration, EPA is not relying on studies about the health and ecological effects of ozone that have been published since the science assessment to support the 2008 review was completed. However, EPA conducted a provisional assessment of these newer studies and found they do not materially change the conclusions of the Agency's earlier science assessment. More information on the provisional assessment is available at: http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=214003

DETERMINING COMPLIANCE: THE FORM OF THE STANDARDS

- When EPA sets air quality standards, it also must specify the measurement unit, or "form" of each standard, which is used to determine whether an area is meeting the standards.

- For the primary standard, ozone concentrations are averaged over 8-hour periods. The fourth-highest 8-hour value at a particular monitor in the most recent year is averaged with the fourth-highest 8-hour values from the previous two years. This produces a three-year average. To meet the standard, the three-year average must be less than or equal to the level of the standard. EPA did not reconsider the form of the primary standard.

- The proposed secondary standard is designed to protect sensitive vegetation from adverse effects associated with cumulative ozone exposures during the three months when daytime ozone concentrations are the highest. Specifically, the form of this new proposed secondary standard is a "cumulative peak-weighted index," called W126. The W126 index is calculated by:
    - "Weighting" each hourly ozone measurement occurring during the 12 daylight hours (8:00 am to 8:00 pm) each day, with more weight given to higher concentrations. This "peak weighting" emphasizes higher concentrations more than lower concentrations, because higher concentrations are disproportionately more damaging to sensitive trees and plants;
    - Adding these 12 weighted hourly ozone measurements for each day, to get a cumulative daily value;
    - Summing the daily values for each month, to get a cumulative monthly value;
    - Identifying the three consecutive months during the ozone season with the highest index value, to get the cumulative seasonal index value, and;
    - Averaging these maximum seasonal index values over three years.
- An area would meet the proposed secondary standard if the three-year average of the cumulative seasonal index values is less than or equal to the level of the standard (i.e., 7-15 ppm-hours).

ESTIMATED TIMELINE FOR IMPLEMENTING THE PROPOSED STANDARDS

- EPA, states and tribes will work together to implement the ozone standards that result from the reconsideration.
- EPA is proposing an accelerated schedule for designating areas for the primary ozone standard. Also, EPA is taking comment on whether to designate areas for a seasonal secondary standard on an accelerated schedule or a 2-year schedule.
- The accelerated schedule would be:
    - **By January 2011:** States make recommendations for areas to be designated attainment, nonattainment or unclassifiable.
    - **By July 2011:** EPA makes final area designations.
    - **August 2011** Designations become effective.
    - **December 2013:** State Implementation Plans, outlining how states will reduce pollution to meet the standards, are due to EPA.
    - **2014 to 2031:** States are required to meet the primary standard, with deadlines depending on the severity of the problem.

MONITORING FOR OZONE

- In a separate rule, EPA proposed in July 2009 to modify the ozone air quality monitoring network design requirements. The proposed modifications would better support alternative ozone standards, including the 2008 ozone standards and the ozone standards proposed in this reconsideration.

- EPA is not proposing in this reconsideration to further modify the minimum monitoring requirements for ozone.

- The already proposed monitoring revisions would change minimum monitoring requirements in urban areas, add new minimum monitoring requirements in non-urban areas, and extend the length of the required ozone monitoring season in many states.

    - EPA proposed that urban areas with populations between 50,000 and 350,000 people operate at least one ozone monitor.

    - EPA proposed that states be required to operate at least three ozone monitors in non-urban areas.

- There are approximately 1,200 ozone monitors operating in the United States, with about 1,000 sited to represent urban areas and 200 to represent non-urban areas.

    - EPA estimates that about 270 new ozone monitors could be required to satisfy the proposed monitoring requirement. We expect the number of new monitors to be considerably less because of the flexibility including in the proposal.

- EPA is considering comments received on the proposed monitoring requirements and plans to issue a final rule in coordination with the final ozone standards in August 2010.

BACKGROUND

What is Ozone?

- Ozone is found in two regions of the Earth's atmosphere – at ground level and in the upper regions of the atmosphere. Both types of ozone have the same chemical composition (O_3). While upper atmospheric ozone forms a protective layer from the sun's harmful rays, ground level ozone is the main component of smog.

- Ground-level ozone is not emitted directly into the air, but forms through a reaction of nitrogen oxides (NOx), volatile organic compounds (VOCs), carbon monoxide (CO) and methane (CH_4) in the presence of sunlight.

- Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are the major man-made sources of NOx and VOCs.

- Because sunlight and hot weather accelerate its formation, ozone is mainly a summertime air pollutant. Both urban and rural areas can have high ozone levels, often due to transport of ozone or its precursors from hundreds of miles away.

Ozone and Public Health

- Exposures to ozone can:
    - Reduce lung function, making it more difficult for people to breathe as deeply and vigorously as normal,
    - Irritate the airways, causing coughing, sore or scratchy throat, pain when taking a deep breath and shortness of breath,
    - Inflame and damage the airways,
    - Increase frequency of asthma attacks,
    - Increase susceptibility to respiratory infection, and
    - Aggravate chronic lung diseases such as asthma, emphysema and bronchitis.

- In some people, these effects can lead to:
    - Increased medication use among asthmatics,
    - More frequent doctors visits,
    - School absences,
    - Increased emergency room visits and hospital admissions, and
    - Increased risk of premature death in people with heart and lung disease.

- Groups that are at greater risk from ozone include:
    - People with lung disease, especially children with asthma.
    - Children and older adults.
    - People who are active outside, especially children and people who work outdoors.

Ozone and the Environment

- Ground-level ozone can have harmful effects on sensitive vegetation and ecosystems. When sufficient ozone enters the leaves of a plant, it can:
    - Interfere with the ability of sensitive plants to produce and store food, leading to reduced growth, making them more susceptible to certain diseases, insects, other pollutants, competition and harsh weather.
    - Visibly damage the leaves of trees and other plants, harming the appearance of vegetation in urban areas, national parks, and recreation areas.

- These effects can have adverse impacts on ecosystems, including loss of species and changes to habitat quality, and water and nutrient cycles.

About the NAAQS Process

- The Clean Air Act requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. National standards exist for six pollutants: ozone, particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide, and lead.

- For each of these pollutants, the Clean Air Act requires EPA to set the health-based or "primary" standards at a level judged to be "requisite to protect the public health with an adequate margin of safety" and establish secondary standards that are "requisite" to protect

public welfare from "any known or anticipated adverse effects associated with the pollutant in the ambient air" including effects on vegetation, soils, water, wildlife, buildings and national monuments, and visibility.

- The law also requires EPA to review the standards and their scientific basis every five years to determine whether revisions are appropriate.
- The Clean Air Scientific Advisory Committee (CASAC) provides independent advice to the EPA Administrator on the relevant scientific and technical information and on the standards.

HOW TO COMMENT

- EPA will accept public comments for 60 days after the proposed revisions to the ozone standards are published in the Federal Register.
- Comments should be identified by Docket ID No. EPA-HQ-OAR-2005 -0172 and submitted by one of the following methods:
    - Federal eRulemaking Portal (http://www.regulations.gov),
    - e-mail (a-and-r-docket@epa.gov),
    - Mail (EPA Docket Center, Environmental Protection Agency, Mail code 6102T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460), or
    - Hand delivery (EPA Docket Center, Environmental Protection Agency, Room 3334, 1301 Constitution Avenue, NW, Washington, DC).

FOR MORE INFORMATION

- To download the Federal Register notice about the proposed revisions to the ozone standards, visit www.epa.gov/ozonepollution.
- Today's proposal and other background information are also available either electronically at http://www.regulations.gov, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
    - The Public Reading Room is located in the EPA Headquarters Library, Room Number 3334 in the EPA West Building, located at 1301 Constitution Ave., NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding federal holidays.
    - Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
    - Materials for this action can be accessed using Docket ID No. EPA-HQ-OAR- 2005-0172.

Agenda Item #6

EPA United States Environmental Protection Agency

Office of Air Quality Planning and Standards

January 2010 Proposal to Revise the National Ambient Air Quality Standards for Ground-level Ozone

General Overview

Overview

- On January 6, 2010, EPA proposed revisions to the National Ambient Air Quality Standards (NAAQS) for ground-level ozone.
- The proposed revisions are based on scientific evidence about ozone and its effects on people and sensitive trees and plants.
- The proposed revisions would affect two types of ozone standards:
  - *Primary standard* to protect public health, including the health of at-risk populations such as children, people with asthma, and older adults.
  - *Secondary standard* to protect public welfare and the environment, including sensitive vegetation and ecosystems.
- Specifically, EPA is:
  - Proposing to revise the level of the *primary* 8-hour ozone standard to a level within the range of 0.060-0.070 parts per million (ppm).
  - Proposing to establish a separate cumulative *secondary* standard within a range of 7-15 ppm-hours.
- EPA is also proposing to update the Air Quality Index (AQI) for ozone.
- EPA plans to issue final standards by August 31, 2010.
- For more information go to http://www.epa.gov/ozonepollution

Regulating Ground-level Ozone Pollution

- The Clean Air Act requires EPA to set primary and secondary NAAQS for common air pollutants:
  - Ground-level ozone (smog)
  - Carbon monoxide
  - Nitrogen dioxide
  - Particulate matter
  - Lead
  - Sulfur dioxide
- The law requires EPA to review the scientific information and the standards for each pollutant every five years, and to obtain advice from the Clean Air Scientific Advisory Committee (CASAC) on each review.
- Different considerations apply to setting NAAQS than to achieving them
  - **Setting NAAQS:** health and environmental effects.
  - **Achieving NAAQS:** account for cost, technical feasibility, time needed to attain.
- EPA last reviewed and revised the ozone standards in 2008 and set both the primary and secondary standards at a level of 0.075 ppm.
- On Sept. 16, 2009, EPA announced it would reconsider this decision.

Reconsidering the Ground-Level Ozone Standards

- Today's proposal reconsiders the 2008 decision on the ground-level ozone standards based on the scientific and technical record used in the March 2008 review, which included more than 1,700 scientific studies.
- In this reconsideration, EPA is not relying on studies about the health and ecological effects of ozone that have been published since the science assessment to support the 2008 review was completed in 2006. However, EPA's Office of Research and Development conducted a provisional assessment of these newer studies and found they do not materially change the conclusions of the Agency's earlier science assessment.
- The proposed range is within the range recommended by CASAC.
  - The ozone standards set in 2008 were not as protective as recommended by EPA's panel of science advisors, the Clean Air Scientific Advisory Committee (CASAC).

Ozone NAAQS Reconsideration Schedule

- **Proposal** signed on January 6, 2010.
- **Public comment** period for 60 days after proposal is published in Federal Register.
- **Public hearings**
  - February 2, 2010 – Arlington, Va., and Houston, Texas.
  - February 4, 2010 – Sacramento, Calif.
- **Final Rule** signed by August 31, 2010.

Ground-level Ozone is:

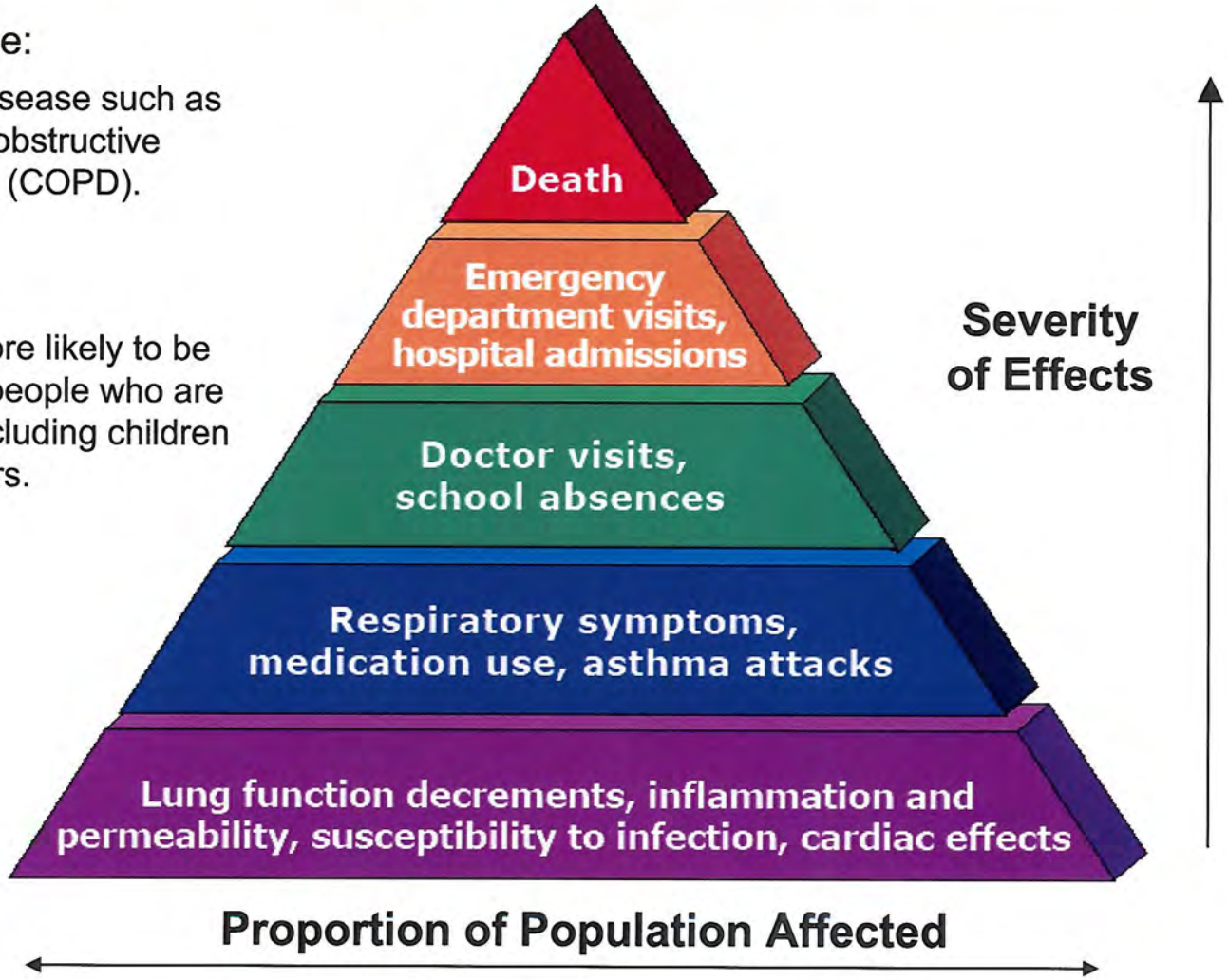
- The main component of smog.
- Not emitted directly into the air but forms when emissions of precursors, including nitrogen oxides (NOx), volatile organic compounds (VOCs), carbon monoxide (CO) and methane (CH_4), "cook" in the sun.
  - Emissions from industrial facilities, electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are the major man-made sources of NOx and VOCs.
- Mainly a summertime pollutant, because sunlight and hot weather accelerate its formation.
- Ozone levels can be high in both urban and rural areas, often due to transport of emissions of ozone precursors, especially NOx and VOC.

Ozone and Health

- Breathing ozone can:
  - Reduce lung function, making it more difficult for people to breathe as deeply and vigorously as normal,
  - Irritate the airways, causing coughing, sore or scratchy throat, pain when taking a deep breath and shortness of breath,
  - Inflame and damage the airways,
  - Increase frequency of asthma attacks,
  - Increase susceptibility to respiratory infection, and
  - Aggravate chronic lung diseases such as asthma, emphysema and bronchitis.
- These effects can lead to:
  - Increased medication use among asthmatics,
  - More frequent doctors visits,
  - School absences,
  - Increased emergency room visits and hospital admissions, and
  - Increased risk of premature death in people with heart and lung disease.
- Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors.

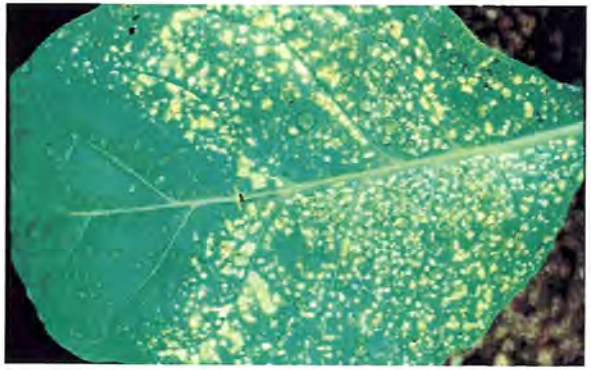
Ozone Health Impacts: "Pyramid of Effects"

- At-risk groups include:
  - People with lung disease such as asthma or chronic obstructive pulmonary disease (COPD).
  - Children.
  - Older adults.
  - People who are more likely to be exposed, such as people who are active outdoors, including children and outdoor workers.



Ozone and the Environment

- Ground-level ozone is absorbed by the leaves of plants, where it can:
  - Interfere with the ability of sensitive plants to produce and store food.
    - This can lead to reduced growth, biomass production and yields.
  - Make sensitive plants more susceptible to certain diseases, insects, harsh weather, other pollutants, and competition.
  - Reduce or change plant species diversity in associated ecosystems.
    - This can lead to damage to ecosystems dependent on those species.
  - Visibly injure the leaves of plants, affecting the appearance of vegetation in national parks, recreation areas and cities.



Proposed Revisions to Primary Ozone Standard

- EPA is proposing to strengthen the level of the 8-hour primary ozone standard to a level within the range of 0.060-0.070 parts per million (ppm).
- The proposal to set a primary standard within this range places additional weight on key pieces of scientific evidence, including:
  - evidence from clinical studies showing effects in healthy adults at 0.060 ppm, including decreased lung function and respiratory symptoms;
  - evidence from clinical and epidemiological studies indicating that people with asthma are likely to experience larger and more serious effects than healthy people;
  - epidemiological evidence indicating associations for a wide range of serious health effects, including respiratory-related emergency department visits and hospital admissions and premature mortality, that extend below the current standard level of 0.075 ppm; and
  - estimates from the risk and exposure assessment indicating that important improvements in public health could be achieved by a standard more stringent than 0.075 ppm.

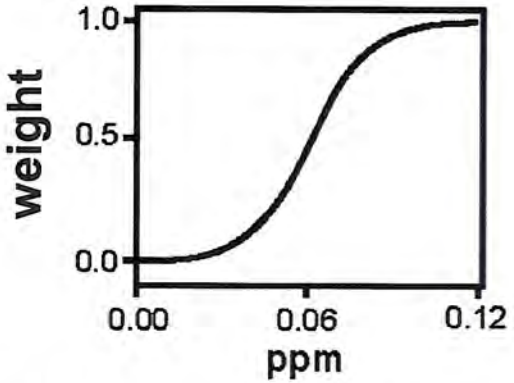
Proposed Revisions to Secondary Ozone Standard

- EPA is proposing to establish a distinct cumulative, seasonal secondary standard at a level in the range of 7-15 ppm-hours.
  - This cumulative standard would add weighted hourly ozone concentrations across all days in a three-month period.
- The Administrator proposes that a seasonal secondary standard identical to the primary standard, as was set in 2008, is inadequate to provide the requisite level of protection for vegetation and ecosystems.
- The new secondary standard, also called W126, is designed to account for the cumulative effects of repeated ozone exposures on sensitive vegetation during the three months of the year when ozone concentrations are highest.

Understanding the W126 Proposed Secondary Standard

Steps in calculating W126 value for a particular site:

1. Measure hourly ozone (O_3) concentrations for each hour within the 12 hour daylight period (8am-8pm).
2. Assign a weight to each hourly value based on concentration: lower concentrations receive less weight than higher concentrations.
3. Sum the 12 weighted hourly values to calculate a daily W126 value.
4. Repeat steps 1-3 for each day within the ozone season and then sum the daily values to calculate the monthly W126 value.
5. Identify the consecutive 3-month period whose monthly W126 values produce the highest total. This total becomes the seasonal W126 for this site.
6. Average three years of maximum W126 values and compare to standard.



Example of weighting over 5-hour period:

Hourly O_3 (ppm)	Weight	W126 (ppm-hrs)
0.03	0.01	0.00
0.05	0.11	0.01
0.06	0.30	0.02
0.08	0.84	0.07
0.10	1.0	0.10
	SUM:	0.20

Daily value =
Sum of values over 12 daylight hours

Implementation Considerations For Proposed Ozone Standards

- **Designations**
  - The Clean Air Act requires States and gives Tribes the option to recommend to EPA which areas are and which areas are not meeting the new standards
  - EPA is proposing an accelerated schedule for designating areas for the primary ozone standard.
  - EPA is taking comment on whether to designate areas for a seasonal secondary standard on an accelerated schedule or a 2-year schedule.
  - EPA is reviewing existing designations guidance and will be communicating with States and Tribes if additional guidance is needed.
- **Previous Ozone Standards**
  - The 2008 8-hour ozone NAAQS and the 1997 8-hour ozone NAAQS remain in place.
  - Implementation for the 2008 8-hour ozone NAAQS is delayed during the reconsideration.
    - Today, EPA announced it is extending the deadline for area designations for the 2008 ozone standards by one year (until 2011).
    - If EPA issues different ozone standards in 2010, these standards would replace the 2008 ozone standards. Implementation requirements for the 2008 ozone standards, including designations, would no longer apply.
  - States should continue their plans for implementing the 1997 NAAQS.

Proposed Accelerated Implementation Timeline

Milestone	Date
Signature—Final Rule	August 31, 2010
State Designation Recommendations to EPA	January 2011
Final Designations	Effective no later than August 2011
Attainment Demonstration SIPs Due	December 2013
Attainment Dates	2014-2031 (depends on severity of problem)

- EPA is planning to propose an implementation rule in spring 2010 and issue a final rule as quickly as possible after the final ozone NAAQS.

Monitoring Considerations Related to Proposed Ozone Standards

- In a separate rule, EPA proposed in July 2009 modifications to the ozone air quality monitoring network design requirements. The proposed modifications would better support alternative ozone standards, including the 2008 ozone standards and the standards proposed in this reconsideration.
  - EPA is not proposing to modify the monitoring requirements for ozone in this reconsideration.
- The already proposed monitoring revisions would modify minimum monitoring requirements in urban areas, add new minimum monitoring requirements in non-urban areas, and extend the length of the required ozone monitoring season in many states.
- There are approximately 1,200 ozone monitors operating in the United States, with about 1,000 sited to represent urban areas and 200 to represent non-urban areas.
  - EPA estimates that about 270 new ozone monitors could be required to satisfy the proposed monitoring requirements.
- EPA is considering comments received on the proposed monitoring requirements and expects to issue a final rule in late summer 2010.

Supplement to the Regulatory Impact Analysis

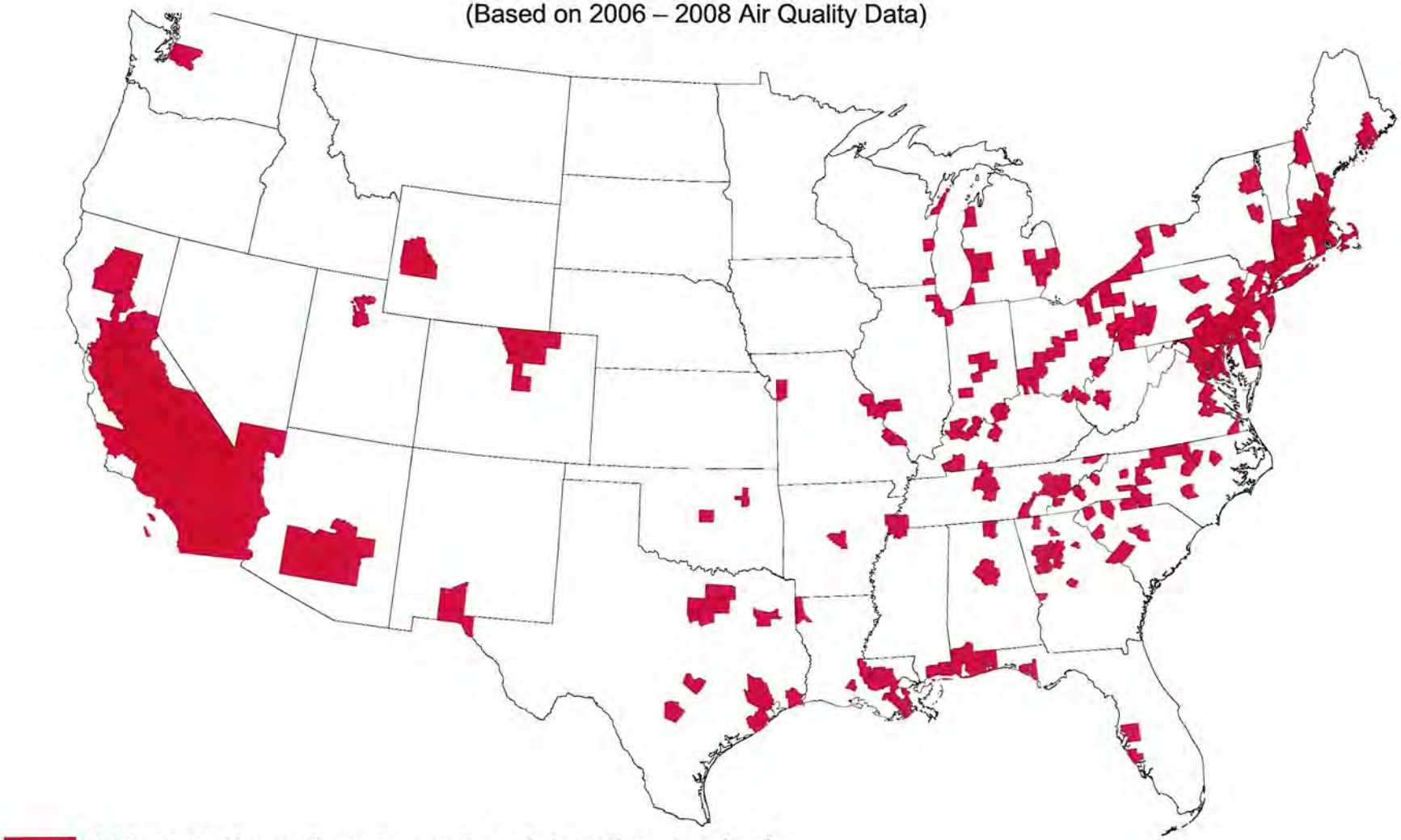
- EPA conducted a supplement to the Regulatory Impact Analysis (RIA) to complement the analyses done for the ozone standards set in 2008.
  - EPA conducts an RIA to analyze the benefits and costs of reducing pollution to meet alternative ozone standards. An RIA is required by Executive Order 12866 and guidance from the White House Office of Management and Budget.
- The benefit and cost analysis is not considered in selecting the proposed ozone standards.
  - The Clean Air Act bars EPA from considering costs in setting or revising any NAAQS.
- The supplement to the RIA is an illustrative analysis and provides information regarding example control strategies, air quality impacts and public health improvements.
- EPA estimates the value of health benefits of reducing ozone to 0.070 ppm would range from about $13 billion to $37 billion per year in 2020. For a standard of 0.060 ppm, the value of benefits would range from about $35 billion to $100 billion per year in 2020.
- The costs of reducing ozone to 0.070 ppm would range from an estimated $19 billion to $25 billion per year in 2020. For a standard of 0.060 ppm, the costs would range from $52 billion to $90 billion.
  - The supplement to the RIA assumes that the proposed standards can be achieved throughout the U.S. using a mixture of known air pollution control technologies and unknown, future technologies.
  - The annual control technology costs of implementing known controls as part of a strategy to attain a standard in the proposed range of 0.060 ppm or 0.070 ppm in 2020 would be approximately $3.3 billion to $4.5 billion. EPA used several statistical methods to provide a range of likely compliance costs for other, currently unknown technologies that would be needed to attain the proposed primary standards.
- The supplement to the RIA includes a limited, qualitative analysis of meeting a secondary standard in the proposed range.

Estimated Number of Adverse Health Effects Avoided under Alternate Standard Levels in 2020*

	0.070 parts per million	0.060 parts per million
Chronic bronchitis	880	2,200
Nonfatal heart attacks	2,200	5,300
Hospital and emergency room visits	6,700	21,000
Acute bronchitis	2,100	5,300
Upper and lower respiratory symptoms	44,000	111,000
Aggravated asthma	23,000	58,000
Days when people miss work or school	770,000	2.5 million
Days when people must restrict their activities	2.6 million	8.1 million
Avoided premature mortality	1,500 to 4,300	4,000 to 12,000

*Includes benefits of reduced fine particle concentrations associated with illustrative ozone controls applied to meet a primary ozone standard in the proposed range

Counties With Monitors Violating the March 2008 Ground-Level Ozone Standards
0.075 parts per million
(Based on 2006 – 2008 Air Quality Data)



322 of 675[1] monitored counties violate the standard

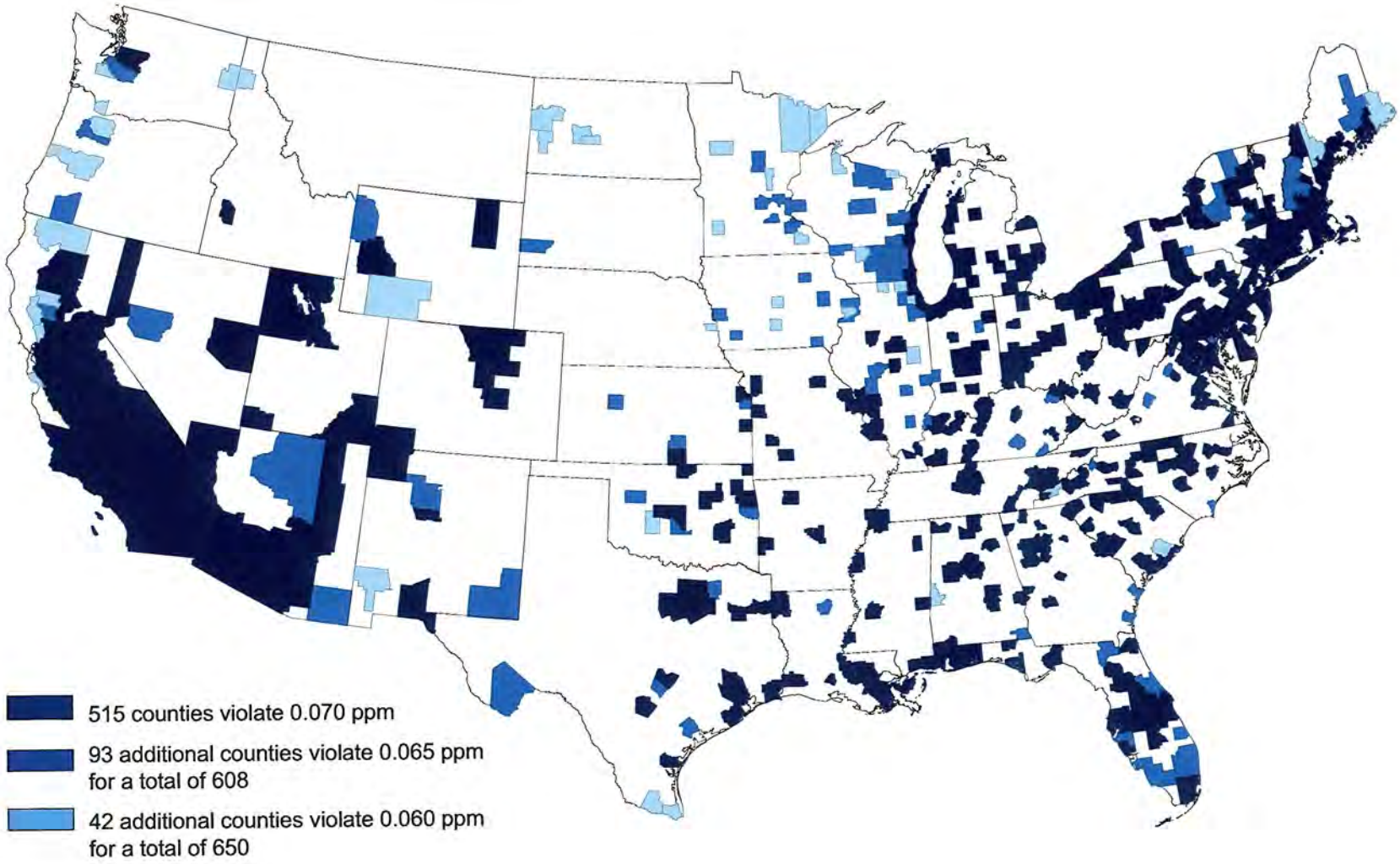
Notes:

1. Counties with at least one monitor with complete data for 2006 – 2008
2. To determine compliance with the March 2008 ozone standards, the 3-year average is truncated to three decimal places.

Counties With Monitors Violating Primary 8-hour Ground-level Ozone Standards
0.060 - 0.070 parts per million

(Based on 2006 – 2008 Air Quality Data)

EPA will not designate areas as nonattainment on these data, but likely on 2008 – 2010 data which are expected to show improved air quality.



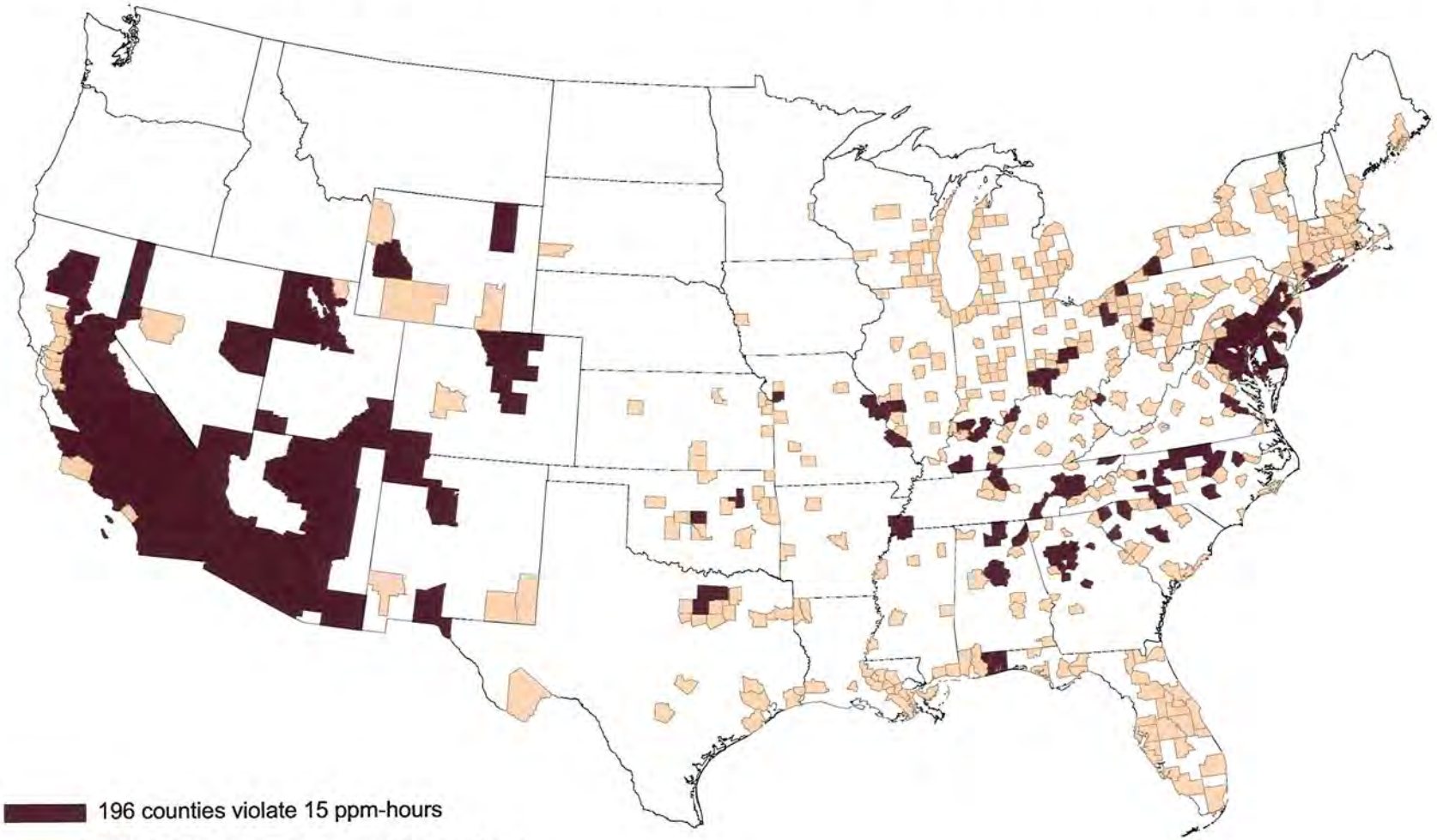
Notes:

1. No monitored counties outside the continental U.S. violate.
2. EPA is proposing to determine compliance with a revised primary ozone standard by rounding the 3-year average to three decimal places.

Counties With Monitors Violating Secondary Seasonal Ground-Level Ozone Standards
7 – 15 parts per million - hours

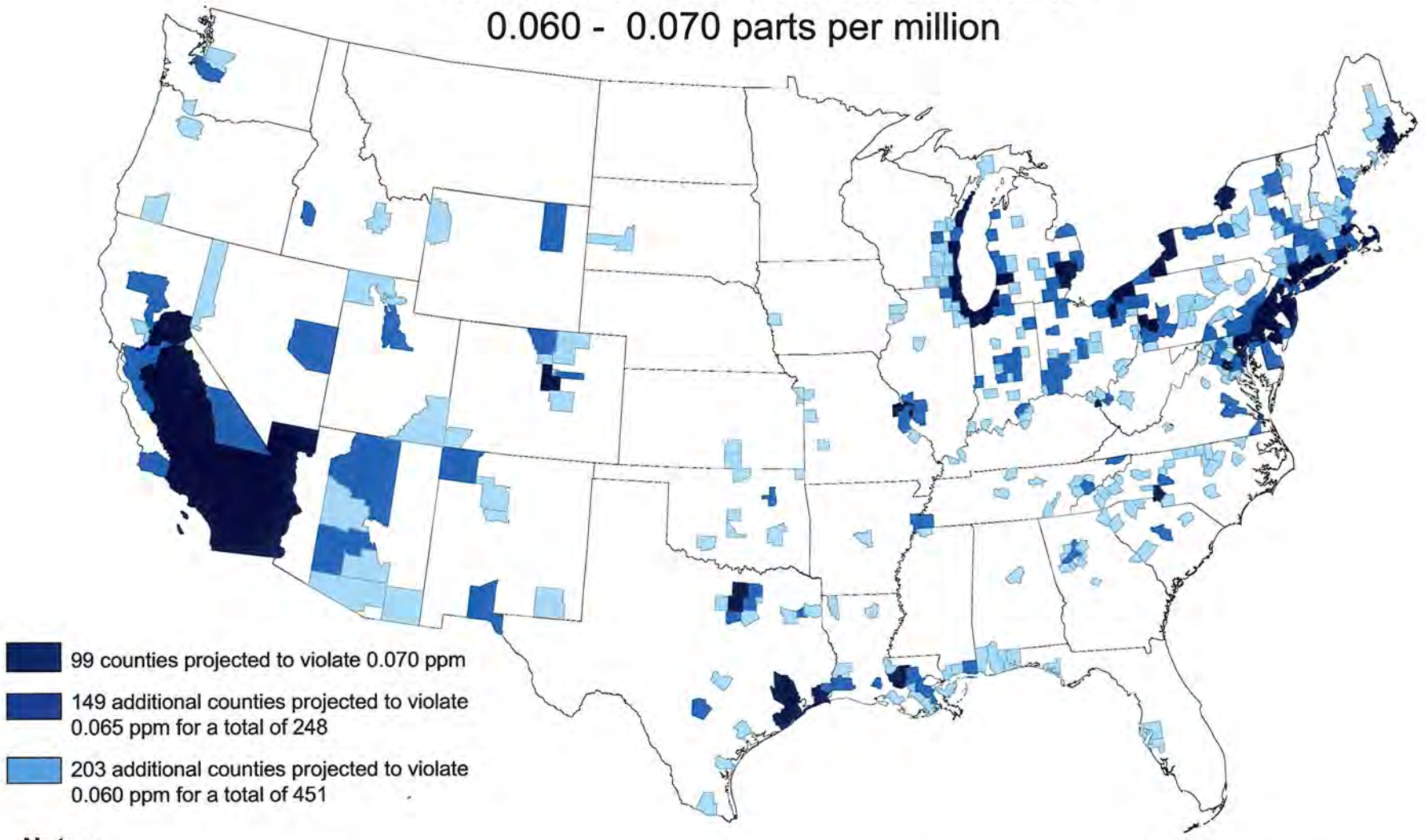
(Based on 2006 – 2008 Air Quality Data)

EPA will not designate areas as nonattainment on these data, but likely on 2008 – 2010 data which are expected to show improved air quality.



No monitored counties outside the continental U.S. violate.

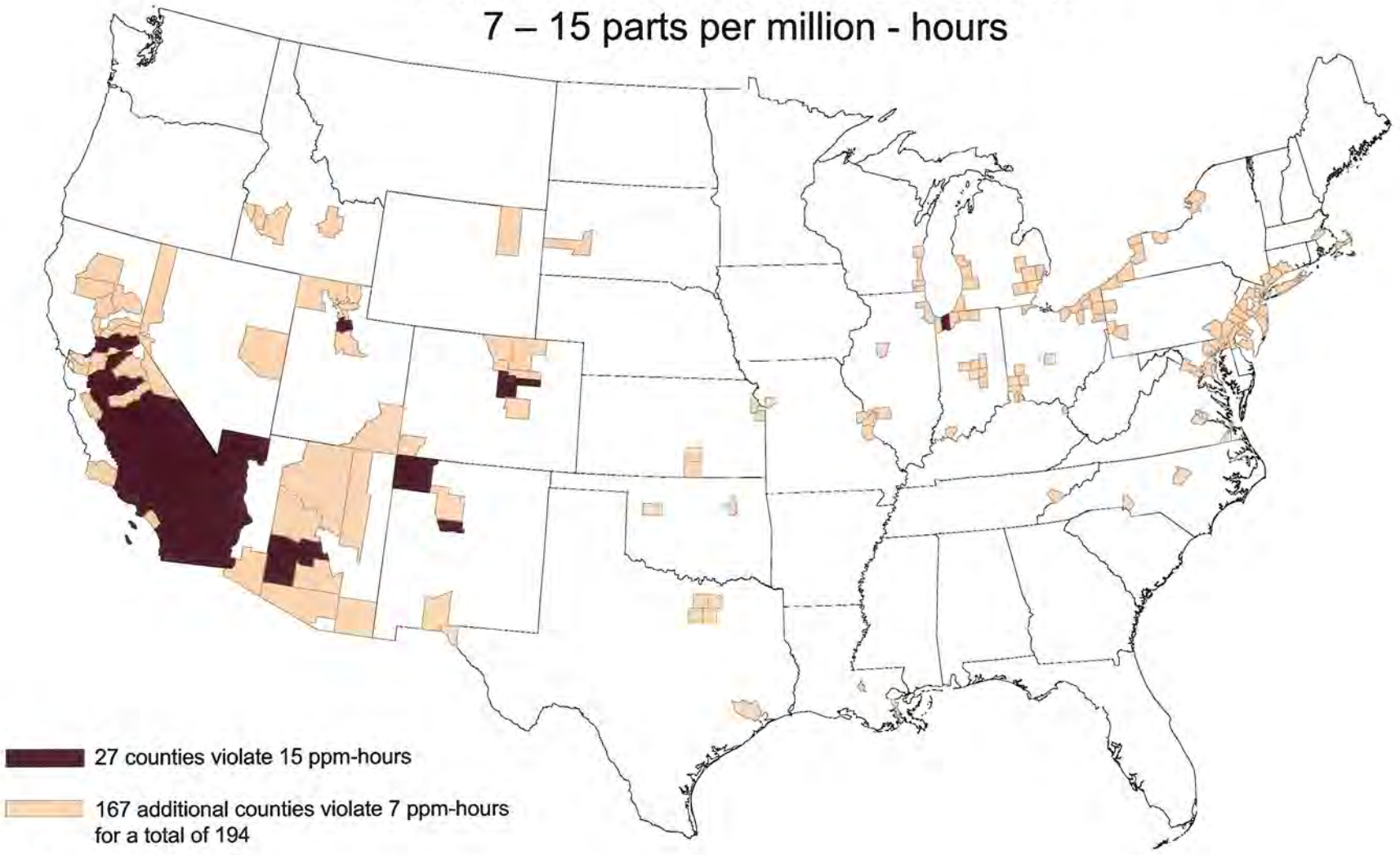
Counties With Monitors Projected to Violate Primary 8-hour Ground-Level Ozone Standards in 2020
0.060 - 0.070 parts per million



Notes:

1. The modeled emissions in 2020 reflect the expected emissions reductions from federal programs by 2020 including: the Clean Air Interstate Rule, the Clean Air Mercury Rule, the Clean Air Visibility Rule, the Clean Air Nonroad Diesel Rule, the Light-Duty Vehicle Tier 2 Rule, the Heavy Duty Diesel Rule, the proposed rules for Locomotive and Marine Vessels and for Small Spark-Ignition Engines, and an estimate of State-level mobile and stationary source controls that were projected to be needed to attain pre-existing PM 2.5 and ozone standards.
2. Controls applied are illustrative. States may choose to apply different control strategies for implementation.
3. EPA did not model future violations outside the continental U.S.
4. EPA is proposing to determine compliance with a revised primary ozone standard by rounding the 3-year average to three decimal places.

Counties With Monitors Projected to Violate the Secondary Seasonal Ground-level Ozone Standards in 2020
7 – 15 parts per million - hours



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