

January 16, 2014

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Philip McNeely, Phoenix, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, January 23, 2014 - 1:30 p.m.  
MAG Office, Suite 200 - Saguaro Room  
302 North 1<sup>st</sup> 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 McNeely 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.

3. Approval of the December 3, 2013 Meeting Minutes

4. Update on the MAG 2012 Five Percent Plan for PM-10 and Exceptional Events

On January 14, 2014, the Environmental Protection Agency (EPA) signed a notice proposing to approve the MAG 2012 Five Percent Plan for PM-10. The plan includes a wide variety of existing control measures and projects that have been implemented to reduce PM-10 and a new measure designed to reduce PM-10 during high risk conditions, including high winds. The plan demonstrated that the measures will reduce emissions by five percent per year and demonstrated attainment of the standard by December 31, 2012. EPA is also proposing to make a determination that the region has met the standard based upon three years of clean data for 2010-2012, as measured by the air quality monitors. Once the notice is published in the Federal Register,

2. For information.

3. Review and approve the December 3, 2013 meeting minutes.

4. For information and discussion.

comments may be submitted for thirty days. Regarding exceptional events, EPA anticipates proposing revisions to the Exceptional Events Rule in April 2014 and finalizing them in April 2015. In 2013, there were six exceptional event days due to regional dust storms, thunderstorms and high winds. Documentation for five of the exceptional event days has been prepared and is available for public review. Please refer to the enclosed material.

5. Evaluation of Proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ Funding

An evaluation of proposed PM-10 Certified Street Sweeper Projects for Fiscal Year 2014 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds has been conducted. The deadline for submitting projects was November 22, 2013.

The FY 2014 Unified Planning Work Program and Annual Budget and FY 2011-2015 MAG Transportation Improvement Program contain \$900,000 in FY 2014 CMAQ funding to encourage the purchase and utilization of PM-10 certified street sweepers. An additional \$330,599 in CMAQ is available from sweeper projects that have been requested to be deleted and from savings on sweepers that have cost less than anticipated, for a total amount of \$1,230,599. A minimum local cash match of 5.7 percent is required.

Thirteen projects requesting federal funds were evaluated. The MAG Air Quality Technical Advisory Committee is requested to recommend a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding to the MAG Management Committee. Please refer to the enclosed material.

5. For information, discussion, and recommendation of a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding to the MAG Management Committee.

6. Evaluation of Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for Fiscal Year 2014, 2015, 2016, and 2017 CMAQ Funding

An evaluation of proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for Fiscal Year 2014, 2015, 2016, and 2017 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds has been conducted. The deadline for submitting projects was November 22, 2013.

The Arizona Department of Transportation has allocated approximately \$672,000 in PM-2.5 CMAQ funding to MAG for programming projects that reduce PM-2.5 in the West Central Pinal PM-2.5 Nonattainment Area. Four projects requesting federal funds were evaluated. It is requested that the Paving Unpaved Road Projects be forwarded to the Transportation Review Committee. Please refer to the enclosed material.

7. Update on the MAG 2014 State Implementation Plan Revision for the Removal of Stage II Vapor Recovery Controls

The Maricopa Association of Governments has been preparing a Draft MAG 2014 State Implementation Plan Revision for the Removal of Stage II Vapor Recovery Controls through a coordinated effort among the Arizona Department of Weights and Measures, Arizona Department of Environmental Quality, and Maricopa County Air Quality Department. Based upon EPA's reevaluation of the approach for this region to remove Stage II, the plan revision would now request that the Environmental Protection Agency remove the requirement for Stage II vapor recovery in this area for new gasoline dispensing facilities in 2014 and for existing facilities beginning in October 2016, before a regional disbenefit begins to occur in 2018. A status report will be provided.

6. For information, discussion, and recommendation to forward the Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for FY 2014, 2015, 2016, and 2017 CMAQ funding to the MAG Transportation Review Committee.

7. For information and discussion.

8. Call for Future Agenda Items

The next meeting of the Committee has been tentatively scheduled for **Thursday, February 27, 2014 at 1:30 p.m.** For your convenience, the Tentative Meeting Schedule for the MAG Air Quality Technical Advisory Committee for January-December 2014 is provided. The Chair will invite the Committee members to suggest future agenda items.

8. For information and discussion.

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

Thursday, December 3, 2013  
MAG Office  
Phoenix, Arizona

MEMBERS ATTENDING

- \* Philip McNeely, Phoenix, Chairman
- William Mattingly, Peoria, Vice Chair
- \* Daniel Culotta, Avondale
- John Minear, Buckeye
- # Jim Weiss, Chandler
- \* Jamie McCullough, El Mirage
- Jessica Koberna, Gilbert
- Doug Kukino, Glendale
- \* Cato Esquivel, Goodyear
- # Rodolfo Lopez for Kazi Haque, Maricopa
- # Greg Edwards for Scott Bouchie, Mesa
- Tim Conner, Scottsdale
- # Antonio DeLaCruz, Surprise
- \* Oddvar Tveit, Tempe
- \* Youngtown
- Ramona Simpson, Queen Creek
- \* American Lung Association of Arizona
- # Wendy Crites for Kristin Watt, Salt River Project
- Rebecca Hudson, Southwest Gas Corporation
- Ann Carlton, Arizona Public Service Company
- # Susie Stevens for Gina Grey, Western States Petroleum Association
- Robert Forrest, Valley Metro/RPTA
- \* Dave Berry, Arizona Motor Transport Association
- \* Jeannette Fish, Maricopa County Farm Bureau
- Steve Trussell, Arizona Rock Products Association
- \* Claudia Whitehead, Greater Phoenix Chamber of Commerce
- # Amanda McGennis, Associated General Contractors
- \* Spencer Kamps, Homebuilders Association of Central Arizona
- \* Mannie Carpenter, Valley Forward
- # Kai Umeda, University of Arizona Cooperative Extension
- Joonwon Joo for Beverly Chenausky, Arizona Department of Transportation
- Diane Arnst, Arizona Department of Environmental Quality
- \* Environmental Protection Agency
- Thomas Ekren, Maricopa County Air Quality Department
- Michelle Wilson, Arizona Department of Weights and Measures
- \* Ed Stillings, Federal Highway Administration
- \* Judi Nelson, Arizona State University
- # Stan Belone, Salt River Pima-Maricopa Indian Community

- \*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
- Matt Poppen, Maricopa Association of Governments
- Julie Hoffman, Maricopa Association of Governments
- Kara Johnson, Maricopa Association of Governments
- Dean Giles, Maricopa Association of Governments
- Patrick Shaw, Maricopa Association of Governments
- Cathy Arthur, Maricopa Association of Governments
- Taejoo Shin, Maricopa Association of Governments
- Randy Sedlacek, Maricopa Association of Governments
- Megan Sheldon, City of Glendale
- Lee Jimenez, Maricopa County Department of Transportation
- Rusty Van Leuven, Arizona Department of Agriculture

1. Call to Order

A meeting of the Maricopa Association of Governments (MAG) Air Quality Technical Advisory Committee (AQTAC) was conducted on December 3, 2013. William Mattingly, City of Peoria, Acting Chair, called the meeting to order at approximately 1:30 p.m. Greg Edwards, City of Mesa; Jim Weiss, City of Chandler; Amanda McGennis, Associated General Contractors; Rodolfo Lopez, City of Maricopa; Susie Stevens, Western States Petroleum Association; Wendy Crites, Salt River Project; Stan Belone, Salt River Pima-Maricopa Indian Community; Kai Umeda, University of Arizona Cooperative Extension; and Antonio DeLaCruz, City of Surprise, attended the meeting via telephone conference call.

Acting Chair Mattingly indicated that copies of the handouts for the meeting are available. He noted for members attending through audio conference, the presentations for the meeting will be posted on the MAG website under Resources for the Committee agenda, whenever possible. If it is not possible to post them before the meeting, they will be posted after the meeting.

2. Call to the Audience

Acting Chair Mattingly 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 that fall under the jurisdiction of MAG and nonaction agenda items. Acting Chair Mattingly noted that no public comment cards had been received.

3. Approval of the October 24, 2013 Meeting Minutes

The Committee reviewed the minutes from the October 24, 2013 meeting. Tim Connor, City of Scottsdale, moved and Ramona Simpson, Town of Queen Creek, seconded, and the motion to approve the October 24, 2013 meeting minutes carried unanimously.

4. Draft 2014 MAG Conformity Analysis for the Draft FY 2014-2018 MAG Transportation Improvement Program and Draft 2035 MAG Regional Transportation Plan

Cathy Arthur, Maricopa Association of Governments, presented the Draft 2014 MAG Conformity Analysis. She stated that transportation and air quality are linked since vehicles contribute emissions to concentrations that can violate federal air quality standards. The Clean Air Act requires that transportation plans, programs, and projects meet all applicable federal conformity requirements and are in conformance with air quality plans. Ms. Arthur indicated that air quality plans establish motor vehicle emission budgets. She noted that conformity analyses can still be required with or without EPA-approved conformity budgets in air quality plans. Ms. Arthur stated that Pinal County's conformity analysis, despite the lack of air quality plans and an established conformity budget, will be discussed later in the presentation.

Ms. Arthur stated that the Draft 2014 MAG Conformity Analysis was conducted for the new Draft FY 2014-2018 MAG Transportation Improvement Program (TIP) and Draft 2035 MAG Regional Transportation Plan (RTP). She indicated that the requirements for the conformity analysis include: utilization of the latest planning assumptions and emissions models, which includes the Motor Vehicle Emission Simulator (MOVES) model; timely implementation of transportation control measures; and a

consultation process. On July 30, 2013, the MAG Models, Methods, and Assumptions document was sent out for public review; comments were received from the Arizona Department of Environmental Quality (ADEQ) by the August 16, 2013 deadline. The comments and the response to comments are included in the conformity analysis. Ms. Arthur noted that there are two documents available on the MAG website: the MAG conformity analysis for the TIP and RTP and another conformity analysis for the Pinal County area.

Ms. Arthur discussed the differences in the conformity analyses this year. She stated that effective May 9, 2013, MAG has an expanded metropolitan planning area (MPA) boundary. Ms. Arthur added that the Sun Corridor Metropolitan Planning Organization (MPO) was formed and their boundary was established on May 6, 2013. The Pinal County PM-10 and PM-2.5 nonattainment areas are completely covered by both the MAG MPA boundary and the Sun Corridor MPA boundary. Transportation conformity is required for both nonattainment areas by both the MAG and Sun Corridor MPOs. Ms. Arthur indicated that since the Sun Corridor MPO is new, MAG is assisting the Sun Corridor with their conformity analysis. She stated that a conformity lapse went into effect for the Pinal County PM-10 nonattainment area on July 2, 2013. The conformity lapse means that regionally significant and federally funded transportation projects in the PM-10 nonattainment area cannot proceed until the conformity analysis is approved by the U.S. Department of Transportation (DOT). MAG staff is preparing the initial conformity analyses for the Pinal County nonattainment areas to help the new Sun Corridor MPO remove the conformity lapse. She noted that MAG is able to do the transportation modeling and conformity analysis for Pinal County since the MAG transportation modeling domain encompasses all of Maricopa and Pinal County. Ms. Arthur reviewed a map that displayed the MPO boundaries and nonattainment areas.

Ms. Arthur provided the conformity results for the Maricopa County nonattainment and maintenance areas for years 2015, 2025, and 2035. The goal is to make sure that the emissions for years 2015, 2025, and 2035 are equal to or lower than the emissions budget. Ms. Arthur mentioned that a minor correction was made to the traffic assignment in November. There were a few traffic assignment coding errors for the years 2025 and 2035; therefore, the conformity analysis was rerun for those years. She stated that the new results are nearly identical to the draft analysis. The maximum change that occurred because of the traffic assignment correction was 0.1 metric tons per day. Ms. Arthur indicated that 2035 remained the same and that the minor change only affected some emissions for year 2025.

Ms. Arthur displayed the carbon monoxide (CO) results in which the year 2025 was 0.1 metric tons per day higher. The CO emissions for years 2015, 2025, and 2035 are well within the conformity budget requirements. Ms. Arthur presented the volatile organic compounds (VOC) results for the conformity budget test. No changes were made to VOC emissions due to the change in traffic assignments. The VOC emissions, which contribute to the formation of ozone, meet the conformity budget requirements. Ms. Arthur reviewed the nitrogen oxides (NOx) results. She noted that the NOx emissions for 2025 were increased by 0.1 metric tons per day due to the traffic assignment correction. The NOx emissions, which contribute to the formation of ozone, are well within the conformity budget requirements. Ms. Arthur presented the PM-10 results for the Maricopa County nonattainment area. She stated that the results include additional sources of PM-10 emissions in addition to the MOVES onroad mobile sources. The additional sources include: exhaust; tire wear; brake wear; unpaved roads; paved roads; and road construction. No changes occurred to the PM-10 emissions because of the traffic assignment correction. The years 2015, 2025, and 2035 meet the PM-10 conformity budget. Ms. Arthur discussed that on November 22, 2013, MAG received a letter from the Environmental Protection Agency (EPA) that indicated they are likely to find the PM-10 budget in the MAG 2012 Five Percent Plan for PM-10 to be

adequate. This adequacy finding will likely be published in the Federal Register in December or January and the budget then becomes effective 15 days later. Ms. Arthur stated that the new budget of 54.9 metric tons per day will likely replace the 2006 budget of 59.7 metric tons per day prior to the approval of the final conformity analysis by the MAG Regional Council on January 29, 2014. She stated that the modeled PM-10 emissions will also meet the requirements of the new budget of 54.9 metric tons per day. Ms. Arthur commented that in August 2013 EPA alerted MAG to be prepared for the approval of the new budget in the MAG 2012 Five Percent Plan.

Ms. Arthur discussed the conformity analysis for the Pinal County PM-10 and PM-2.5 nonattainment areas. She indicated that the Pinal County Conformity Analysis is different since there are no approved air quality plans for these nonattainment areas; therefore, there are no approved or adequate emissions budgets. If budgets are not in place, a build/no-build analysis is required. Ms. Arthur noted that the PM-10, PM-2.5, and NOx emissions for Pinal County are measured in kilograms per day, which is a smaller unit of measurement than the metric tons per day used in Maricopa County, since the Pinal County emissions are lower, due to a much smaller PM-2.5 nonattainment area. The PM-10 emissions for the Pinal County PM-10 nonattainment area include: exhaust; tire wear; brake wear; unpaved roads; and paved roads. To meet conformity requirements the build emissions must be no greater than the no-build option. Ms. Arthur indicated that the PM-10 emission requirements are met for the Pinal County area.

Ms. Arthur presented the PM-2.5 emissions for the Pinal County PM-2.5 nonattainment area. The PM-2.5 emissions include: exhaust; tire wear; and brake wear. Ms. Arthur noted that the build emissions can be equal to, but not greater than the no-build category. The PM-2.5 conformity requirements are met for the Pinal County PM-2.5 nonattainment area.

Ms. Arthur discussed the NOx results for the Pinal County PM-2.5 nonattainment area. She stated that a NOx conformity test is required if the PM-2.5 nonattainment area does not have an air quality plan that demonstrates NOx is an insignificant contributor. The NOx emissions include only vehicle exhaust. The NOx emissions for the build scenario are one kilogram per day lower due to the corrections to the traffic assignment. Ms. Arthur noted that the conformity requirements are also met for NOx, since the build option is no greater than the no-build option.

Ms. Arthur discussed the funding provided for transportation control measures in the TIP. She stated that the budget totals \$1.2 billion for the 2014-2018 TIP. Ms. Arthur noted that this total does not include the \$28.3 million programmed for PM-10 certified street sweepers and paving unpaved roads. She reported that there is a considerable amount of funding programmed to ensure conformity requirements are met with control measures.

Ms. Arthur provided the conformity analysis schedule. On October 25, 2013 the Draft Conformity Analysis document was made available for a 30 day public review. The public hearing for the Draft 2014 MAG Conformity Analysis for the Draft FY 2014-2018 MAG Transportation Improvement Program and Draft 2035 MAG Regional Transportation Plan was conducted on November 25, 2013. Ms. Arthur noted that public comments were received and MAG responded to the comments. The conformity analysis is being presented to the Committee to recommend approval to the MAG Management Committee and the MAG Regional Council. Ms. Arthur explained that if the document is approved by the MAG Committees, the conformity analysis will be submitted to the U.S. Department of Transportation at the end of January 2014. She noted that U.S. DOT indicated that they will try to approve the analyses by early February 2014.

Ms. Arthur provided the responses to comments received at the public hearing on November 25, 2013. Ms. Arthur indicated that one citizen provided comments at the hearing. Ms. Arthur added that written comments were also received from Jerry Wamsley at the U.S. Environmental Protection Agency.

Ms. Arthur summarized written comments received from Jerry Wamsley, United States Environmental Protection Agency, and the responses. The first comment stated thank you for the opportunity to review and comment on the MAG Draft 2014 Conformity Analysis. The comment goes on to note that, in general, the Draft 2014 Conformity Analysis provides a detailed analysis consistent with the requirements of the Transportation Conformity Rule, however clarification on several points is requested. The response thanked EPA for reviewing the draft conformity document and finding it to be consistent with the requirements of the Transportation Conformity Rule.

Ms. Arthur summarized the next written comment from EPA. The comment indicated that there is an array of control measure inputs and assumptions included in the conformity analysis. While these measures may have been approved as part of an air quality plan, the 2014 Conformity Analysis does not document if and when these control measures were approved into the SIP. It would be helpful if MAG provided the related Federal Register citations. The response stated that Table 4 in the 2014 MAG Conformity Analysis will be updated to include the Federal Register citations of EPA approval actions taken on control measures.

Ms. Arthur summarized the next comment from EPA. The comment stated that the 2014 MAG Conformity Analysis should explain the basis for assuming ten miles of unpaved roadway will be paved annually through 2035. Ms. Arthur discussed that roads will be paved through 2018 based on funding programmed in the TIP, however after 2018 the assumption is made that ten miles will be paved each year through 2035. The response stated that on page 59 of the Draft Conformity Analysis, Chapter 9 of the 2035 MAG Regional Transportation Plan states that ten miles of unpaved roads will be paved each year in the PM-10 nonattainment area. This assumption is based on the average number of miles of public unpaved roads that have been paved historically in the PM-10 nonattainment area. As shown on Table 10 on page 74, the programmed funding for these projects is \$22.5 million. The RTP assumes that this level of investment, as well as, local funds will continue to be available after FY 2018 to pave a minimum of ten miles of unpaved roads per year.

The next comment from EPA stated: please explain what growth assumptions are made for the public unpaved road network as it does not seem reasonable that this network will not change from the 613.4 miles estimated in 2009 through 2035. The response indicated that as stated on page 57, the vehicle miles traveled (VMT) is held constant for all conformity analysis years in order to estimate uncontrolled emissions (before applying reductions attributable to paving projects). The MAG Unpaved Road Inventory was conducted in 2009 and is updated every year. Since 2009, the annual updates indicate there have been major decreases in the miles of public unpaved roads. To be conservative in calculating uncontrolled PM-10 emissions, the conformity analysis assumes that the miles of public unpaved roads in 2009 remain constant through 2035. However, it is important to note, that while public unpaved roads are held constant, private unpaved roads increase over time as a result of lot splits. MAG determined an average annual growth in private unpaved road mileage of 0.9 percent.

Ms. Arthur summarized another written comment from EPA. The comment indicated that the 2014 Conformity Analysis should provide the basis for assuming that PM-10 certified street sweepers will be utilized and produce PM-10 emission reductions on paved roads in proportion with growth in the roadway network and VMT after 2012 and through 2035. This assumption may be questionable given

the reported loss of 23 of 123 certified street sweepers between 2001 and 2009 and no documentation of a plan for replacing or providing more certified street sweepers in the future. The response stated that Table 10 of the conformity analysis indicates there is \$5.8 million programmed in the TIP to purchase PM-10 efficient street sweepers in FY 2014-2017 with a lump sum also available in FY 2018. In every year since 2001, MAG has funded PM-10 certified street sweepers using Congestion Mitigation and Air Quality Improvement (CMAQ) funds. By 2010, virtually all conventional sweepers had been replaced with PM-10 certified sweepers. Ms. Arthur explained that 2010 is the base year since nearly all conventional sweepers had been replaced by PM-10 efficient sweepers. She noted that the benefit in 2010 will increase over time based on increases in VMT. Therefore, the PM-10 emission reduction benefit from the 100 PM-10 certified sweepers purchased with CMAQ funds and still active on December 31, 2009 was used as the 2010 base year estimate. Since 2010, street sweeper funding in the TIP has been used to replace older PM-10 certified sweepers, expand the area swept, and increase sweeping frequency. In addition to the funding already programmed in the FY 2014-2018 TIP, it is assumed that MAG will continue to fund PM-10 certified sweepers through 2035. The benefit of the PM-10 certified sweepers increases over time based on the growth in VMT.

EPA also commented that it would be helpful if the document referenced or provided the emission factors and calculations for estimating PM-10 emissions from paved and unpaved roads. Ms. Arthur stated that a new appendix will be added to the final conformity analysis that will detail the assumptions made for paved and unpaved roads, including: emission factors; VMT estimates; and the benefits from the control measures.

Ms. Arthur summarized the next comment. The comment stated: please explain why PM-10 emissions from all construction related activities are not a contributor to nonattainment and why road construction emissions are not addressed within the conformity analysis. Ms. Arthur indicated that this is referring to the Pinal County analysis; the Maricopa County area analysis does address road construction emissions. The response refers to Section 93.122(e) of the EPA Conformity Guidance document: “In PM-10 nonattainment and maintenance areas with implementation plans which identify construction-related fugitive PM-10 as a contributor to the nonattainment problem, the regional PM-10 emissions analysis shall consider construction-related fugitive PM-10 and shall account for the level of construction activity, the fugitive PM-10 control measures in the applicable implementation plan, and dust-producing capacity of the proposed activities.” The MAG 2014 Conformity Analysis began on September 29, 2013. The ADEQ issued the proposed Arizona State Implementation Plan Revision for the west Pinal County PM-10 nonattainment area on November 7, 2013. Since no implementation plan for the Pinal County nonattainment area was available on the date that the Draft MAG 2014 Conformity Analysis began, the requirement to include road construction emissions does not apply.

Ms. Arthur summarized the final written comment from EPA. The comment stated that given the areas attainment of the carbon monoxide and one-hour ozone standard, we understand that MAG does not intend to reconcile future VMT estimates from their transportation demand model with Highway Performance Management System’s (HPMS) VMT. While this may not be required, we encourage MAG to continue recalibrating and reconciling their transportation demand model results with HPMS VMT data. The response stated that on page 31 of the Draft 2014 MAG Conformity Analysis, “the most recent comparison of model-estimated and HPMS VMT for the travel demand model calibration year of 2011 concluded the model and HPMS VMT estimates were nearly identical.” Ms. Arthur indicated that the 2011 VMT for the MAG transportation modeling domain was within one percent of the 2011 VMT reported by the Arizona Department of Transportation HPMS.

Ms. Arthur summarized a testimonial comment from Dianne Barker, Citizen. Ms. Barker's comment indicated that based on the lawsuit, if the federal government came in and did a transportation program in January that maybe it would help with air quality. She commented that the government is using arterial money to fund 80 percent of the light rail which has created a lot more congestion and pollution. The response stated that the conformity analysis includes the highway and transit networks for analysis years 2015, 2025, and 2035. Ms. Arthur noted that emission estimates are calculated using all of the transportation networks. She stated that the analysis concludes that conformity can be demonstrated in those future years with the entire transportation network.

Ms. Arthur summarized the final testimonial comment from Ms. Barker. The comment stated that there is \$6.8 million from 2014 to 2017 for Trip Reduction and Telework Programs. This is very good. It is for encouraging and training over 1,000 employers here in the Valley. Ms. Barker also commented on the benefits of the programs. The response indicated that a discussion of Transportation Demand Management in the MAG region is described in Chapter 18 of the 2035 MAG Regional Transportation Plan. Transportation Demand Management Programs encourage reductions in travel demand within the transportation system. Ms. Arthur noted that the \$6.8 million is included in the FY 2014-2018 TIP for the Trip Reduction and Regional Rideshare and Telework Programs.

Tim Connor, City of Scottsdale, inquired if discussion occurred on the other measures of dust mitigation on unpaved roads, such as stabilization. Ms. Arthur replied that while stabilization reduces PM-10 emissions, a commitment to continue stabilization methods is needed. She explained that the benefit of stabilization applies to the year that stabilization occurred, however it is difficult to project stabilization without a commitment or measure to maintain stabilization. Ms. Arthur also indicated that it depends on the frequency of the commitment to stabilize. Mr. Connor indicated that depending on weather and rainfall, Scottsdale generally stabilizes twice per year. Ms. Arthur stated that credit for stabilization could occur if a long term stabilization commitment was made. She noted that to be conservative, stabilization was not included for credit in the analysis.

Acting Chair Mattingly requested a motion to recommend approval of the Draft 2014 MAG Conformity Analysis for the Draft FY 2014-2018 MAG Transportation Improvement Program and Draft 2035 MAG Regional Transportation Plan. Doug Kukino, City of Glendale, moved, and Steve Trussell, Arizona Rock Products Association, seconded, and the motion to recommend approval of the Draft 2014 MAG Conformity Analysis carried unanimously.

5. Update on the MAG 2012 Five Percent Plan for PM-10 and Exceptional Events

Lindy Bauer, Maricopa Association of Governments, provided an update on the MAG 2012 Five Percent Plan for PM-10 and exceptional events. She stated that on September 12, 2013 EPA published a notice that the PM-10 motor vehicle emissions budget in the MAG 2012 Five Percent Plan for PM-10 was being reviewed for adequacy to enable its use for conformity purposes. She mentioned that EPA sent a letter on November 22, 2013 indicating that adequacy was determined. Ms. Bauer noted that the motor vehicle emissions budget will be effective 15 days after it is published in the Federal Register.

Ms. Bauer stated that U.S. Senator Jeff Flake conducted an Arizona only listening session with EPA on November 20, 2013 to provide an opportunity for Arizona stakeholders to discuss exceptional events issues. She commented that it was a very productive conference call and MAG appreciated being involved in the listening session. Ms. Bauer discussed MAG's top three items with regard to the Exceptional Events Rule: more deference should be given to states; the process and documentation needs

to be streamlined; and the Exceptional Events Rule needs to accommodate and recognize differences in regional climates and weather conditions. Ms. Bauer noted that a majority of comments from both the private and public sector were right in line. She stated that EPA recently published a regulatory agenda that indicates EPA intends to publish a notice of proposed rulemaking for the Exceptional Events Rule in April 2014. The final rulemaking is scheduled for April 2015.

Ms. Bauer indicated that, to date, there have been six exceptional event days in 2013. MAG staff is preparing four out of the six packages of exceptional event documentation. Additionally, on December 3, 2013, EPA published a final rule in the Federal Register approving several of the statutes for the measures in the MAG 2012 Five Percent Plan for PM-10. Ms. Bauer noted that this final rule becomes effective January 2, 2014. She commented that these are all positive steps toward approving the Plan. Acting Chair Mattingly thanked Ms. Bauer for the update.

6. Update on the MAG 2013 State Implementation Plan Revision for the Removal of Stage II Vapor Recovery Controls

Matt Poppen, Maricopa Association of Governments, provided an update on the MAG 2013 State Implementation Plan (SIP) Revision for the Removal of Stage II Vapor Recovery Controls. He stated that three schedules for removal of Stage II controls in the Maricopa ozone nonattainment area were presented at the last Committee meeting. The scheduling options include: the Arizona agencies preferred a schedule of new gasoline dispensing facilities being constructed without Stage II controls in 2014 and to decommission Stage II controls from existing facilities in 2016-2017; the EPA suggested a schedule of new facilities being constructed without Stage II controls in 2014 and Stage II removal for existing facilities in 2017-2018; and the third option is to construct new facilities in 2014 without Stage II and existing facilities would decommission Stage II in October 2016 through September 2018, after the 2016 ozone season. Mr. Poppen noted that the emission increases associated with the scheduling options are included in the presented table, as well as, the emissions associated with retaining Stage II controls for comparison purposes.

Mr. Poppen stated that Arizona agencies had a conference call with EPA on November 15, 2013. He indicated that the Arizona agencies discussed the preferred scheduling option with EPA. EPA responded by recommending a Stage II removal schedule for new gasoline dispensing facilities beginning in 2014 and existing facilities after the 2016 ozone season, from October 2016 to September 2018. The Stage II removal schedule that begins after the 2016 ozone season for existing facilities results in the smallest temporary emission increases of the scheduling options. In addition, Mr. Poppen discussed that EPA provided direction on other elements of the SIP revision. EPA requested the statutory authority for Stage II removal in the Maricopa ozone nonattainment area be included as part of the SIP revision. Mr. Poppen stated that EPA indicated that they prefer one SIP revision that would include removal of Stage II for both new and existing facilities. EPA also indicated that they are unlikely to issue a federal enforcement discretion letter allowing for Stage II removal in place of a SIP revision. In addition, EPA specified emission offsets would not be necessary if the Stage II removal schedule that results in the smallest temporary emission increases was selected.

Rebecca Hudson, Southwest Gas Corporation, inquired about the legislation for Stage II removal. Michelle Wilson, Arizona Department of Weights and Measures, replied that the Arizona Department of Weights and Measures is working on drafting the legislative bill with a representative. Ms. Hudson asked if the bill would include other components, in addition to the Stage II control removal. Ms. Wilson

responded that the bill will mainly include removal of Stage II controls and retention of Stage I requirements. Acting Chair Mattingly thanked Mr. Poppen for the presentation.

#### 7. Call for Future Agenda Items

Acting Chair Mattingly requested suggestions for future agenda items. He indicated that the next meeting of the Committee has been tentatively scheduled for Thursday, January 23, 2014 at 1:30 p.m. Acting Chair Mattingly stated that a copy of the tentative 2014 meeting schedule for the Committee is provided.

Diane Arnst, Arizona Department of Environmental Quality, reminded the Committee of no burn days. She commented that the Durango monitor was close to exceeding the PM-2.5 standard on November 30, 2013. Ms. Arnst noted that information on no burn days can be found at the Clean Air Make More website. She stated that the website includes a toolkit and tips for no burn days. Ms. Arnst mentioned lighting a candle or utilizing a gas fireplace on no burn days and spreading the word to family and friends on this topic. She added that Christmas Eve, Christmas Day, New Year's Eve, and New Year's Day are the most troublesome days.

Mr. Trussell inquired about a future agenda item discussing CMAQ projects for the Pinal County PM-10 nonattainment area. Ms. Bauer responded that the CMAQ call for projects is currently underway for PM-2.5 CMAQ funding in the Pinal County PM-2.5 nonattainment area. She stated that it is anticipated these projects would be presented to the Committee in January 2014. Mr. Trussell asked about the deadline for project submittals. Ms. Bauer replied that the deadline was November 22, 2013. She noted that once the projects are submitted the projects are then evaluated for air quality impacts and cost effectiveness. With no further comments, the meeting was adjourned at approximately 2:15 p.m.

## U.S. EPA FACT SHEET

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### **EPA Proposes to Approve the 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area**

January 14, 2013

#### **Summary**

- EPA is proposing to approve the 2012 Five Percent Plan for the Maricopa County Nonattainment Area because the plan shows annual reductions of PM-10 emissions of at least 5% between 2007 and 2012 and demonstrates attainment of the PM -10 National Ambient Air Quality Standard (PM-10 NAAQS) by December 31, 2012.
- Today's proposal recognizes continued air quality improvement in Arizona accomplished through the efforts of the Arizona Department of Environmental Quality (ADEQ), the Maricopa County Air Quality Department, the Maricopa Association of Governments, multiple industry, business and agricultural stakeholders, and EPA to protect public health.

#### **Background**

- The nonattainment area is located in the eastern portion of Maricopa County and encompasses the cities of Phoenix, Mesa, Scottsdale, Tempe, Chandler, Glendale, as well as the other jurisdictions that comprise the Phoenix metropolitan area. The nonattainment area also includes the town of Apache Junction in Pinal County.
- The State of Arizona was required to submit a 5% PM-10 Plan (also known as a 189(d) plan) after the Maricopa County nonattainment area failed to attain the PM-10 NAAQS by the required attainment date of December 31, 2006.
- The failure to attain triggered the requirements of section 189(d) of the Clean Air Act (CAA), which requires a PM-10 reduction of 5% per year until attainment.
- The State of Arizona originally submitted a 5% Plan to EPA on December 21, 2007, which EPA proposed to partially disapprove due to issues with the attainment demonstration and the emissions inventory.
- The State of Arizona subsequently withdrew the 2007 5% Plan and resubmitted a revised plan on May 25, 2012. This is the plan that EPA is proposing action on today.
- EPA is required by the terms of a consent decree with the Arizona Center for Law in the Public Interest (ACLPI) to propose action on the plan by January 14, 2014, and finalize action by June 2, 2014.

## **Particulate Matter and Public Health**

- Reducing PM10 levels is essential because airborne particles are a serious threat to human health. Major concerns include effects on breathing and respiratory systems, damage to lung tissue, cancer, and premature death. The elderly, children, and people with chronic lung disease and asthma are especially sensitive to the effects of particulate matter.
- A study released in 2009 by Arizona State University showed that when levels of PM-10 in central Phoenix were high, there was a significant increase in asthma incidents in children.

## **Next Steps**

- Today's proposal will be published in the Federal Register in approximately two to three weeks. EPA will accept public comment for 30 days after publication.

## **For More Information:**

<http://www.epa.gov/region9/air/actions/az.html>

Alexis Strauss signed the following proposed rule on January 14, 2014 on behalf of the EPA Region 9 Regional Administrator, Jared Blumenfeld. EPA is submitting it for publication in the *Federal Register* (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's FDsys website (<http://fdsys.gpo.gov/fdsys/search/home.action>) and on Regulations.gov (<http://www.regulations.gov>) in Docket No. EPA-R09-OAR-2013-0762.

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R09-OAR-2013-0762; FRL-]

Approval and Promulgation of Implementation Plans – Maricopa County (Phoenix) PM-10

Nonattainment Area; Serious Area Plan for Attainment of the 24-Hour PM-10 Standard;

Clean Air Act Section 189(d)

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

EPA is proposing to approve a state implementation plan (SIP) revision submitted by the State of Arizona to meet Clean Air Act (CAA) requirements applicable to the Maricopa County (Phoenix) PM-10 Nonattainment Area. The Maricopa County PM-10 Nonattainment Area is located in the eastern portion of Maricopa County and encompasses the cities of Phoenix, Mesa, Scottsdale, Tempe, Chandler, Glendale, several other smaller jurisdictions, unincorporated County lands, as well as the town of Apache Junction in Pinal County. The Maricopa County PM-10 Nonattainment Area is designated as a serious nonattainment area for the national ambient air quality standards (NAAQS) for particulate matter of ten microns or less (PM-10). The submitted SIP revision is the *Maricopa Association of Governments Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area* (2012 Five Percent Plan). Arizona's obligation to submit the 2012 Five Percent Plan was triggered by EPA's June 6, 2007 finding that the Maricopa PM-10 Nonattainment Area had failed to meet its December 31, 2006 deadline to attain the PM-10 NAAQS. CAA section 189(d) requires a serious PM-10 nonattainment area

that fails to meet its attainment deadline to submit a plan providing for attainment of the PM-10 NAAQS and for an annual emission reduction in PM-10 or PM-10 precursors of not less than five percent until attainment. EPA is proposing to approve the 2012 Five Percent Plan as meeting all relevant statutory and regulatory requirements.

**DATES:** Any comments must arrive by [Insert date 30 days from the date of publication in the Federal Register].

**ADDRESSES:** Submit comments, identified by docket number EPA-R09-OAR-2013-0762, by one of the following methods:

1. Federal eRulemaking Portal: [www.regulations.gov](http://www.regulations.gov). Follow the on-line instructions.
2. E-mail: [nudd.gregory@epa.gov](mailto:nudd.gregory@epa.gov).
3. Mail or deliver: Gregory Nudd (Air-2), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901.

*Instructions:* All comments will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through [www.regulations.gov](http://www.regulations.gov) or e-mail. [www.regulations.gov](http://www.regulations.gov) is an “anonymous access” system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. If EPA cannot read your comment due to technical

difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

*Docket:* The index to the docket for this action is available electronically at [www.regulations.gov](http://www.regulations.gov) and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

**FOR FURTHER INFORMATION CONTACT:** Gregory Nudd, U.S. EPA Region 9, 415-947-4107, [nudd.gregory@epa.gov](mailto:nudd.gregory@epa.gov) or [www.epa.gov/region09/air/actions](http://www.epa.gov/region09/air/actions).

**SUPPLEMENTARY INFORMATION:** Throughout this document, the terms “we,” “us,” and “our” mean U.S. EPA.

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- II. Overview of Applicable CAA Requirements
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- IV. Summary of Proposed Actions
- V. Statutory and Executive Order Reviews

## **I. PM-10 Air Quality Planning in the Maricopa PM-10 Non-Attainment Area.**

The NAAQS are standards for certain ambient air pollutants set by EPA to protect public health and welfare. PM-10 is among the ambient air pollutants for which EPA has established health-based standards. PM-10 causes adverse health effects by penetrating deep in the lungs, aggravating the cardiopulmonary system. Children, the elderly, and people with asthma and heart conditions are the most vulnerable.

On July 1, 1987 EPA revised the health-based national ambient air quality standards, replacing the standards for total suspended particulates with new standards applying only to particulate matter up to ten microns in diameter (PM-10). 52 FR 24672. At that time, EPA established two PM-10 standards, annual and 24-hour. Effective December 18, 2006, EPA revoked the annual PM-10 standard but retained the 24-hour PM-10 standard. 71 FR 61144 (October 17, 2006). The 24-hour PM-10 standard of 150 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) is attained when the expected number of days with a 24-hour average concentration above 150  $\mu\text{g}/\text{m}^3$  per calendar year averaged over a three year period, as determined in accordance with appendix K to 40 CFR part 50, is equal to or less than one. 40 CFR 50.6 and 40 CFR part 50, appendix K.

On the date of enactment of the 1990 Clean Air Act Amendments (CAA or the Act), many areas, including the Maricopa PM-10 Nonattainment Area, meeting the qualifications of section 107(d)(4)(B) of the amended Act were designated nonattainment by operation of law. 56 FR 11101 (March 15, 1991). The Maricopa PM-10 Nonattainment Area is located in the eastern portion of Maricopa County and encompasses the cities of Phoenix, Mesa, Scottsdale, Tempe, Chandler, Glendale, as well as 15 other jurisdictions, four tribes and unincorporated County lands. The nonattainment area also includes the town of Apache Junction in Pinal County. EPA codified the boundaries of the Maricopa PM-10 Nonattainment Area at 40 CFR 81.303.

Once an area is designated nonattainment for PM-10, section 188 of the CAA outlines the process for classifying the area as moderate or serious and establishes the area's attainment deadline. In accordance with section 188(a), at the time of designation, all PM-10 nonattainment areas, including the Maricopa PM-10 Nonattainment Area, were initially classified as moderate.

A moderate PM-10 nonattainment area must be reclassified to serious PM-10 nonattainment by operation of law if EPA determines after the applicable attainment date that, based on air quality, the area failed to attain by that date. CAA sections 179(c) and 188(b)(2). On May 10, 1996, EPA reclassified the Maricopa PM-10 Nonattainment Area as a serious PM-10 nonattainment area. 61 FR 21372.

As a serious PM-10 nonattainment area, the area acquired a new attainment deadline of no later than December 31, 2001. CAA section 188(c)(2). However, CAA section 188(e) authorizes EPA to grant up to a 5-year extension of that attainment deadline if certain conditions are met by the state. In order to obtain the extension, the state must make a SIP submission showing that: (1) attainment by the applicable attainment date would be impracticable; (2) the state complied with all requirements and commitments pertaining to the area in the implementation plan for the area; and (3) the plan for the area includes the most stringent measures (MSM) that are included in the implementation plan of any state or are achieved in practice in any state, and can feasibly be implemented in the specific area. Arizona requested an attainment date extension under CAA section 188(e) for the Maricopa PM-10 Nonattainment Area from December 31, 2001 to December 31, 2006.

On July 25, 2002, EPA approved the serious area PM-10 plan for the Maricopa PM-10 Nonattainment Area as meeting the requirements for such areas in CAA sections 189(b) and (c), including the requirements for implementation of best available control measures (BACM) in

section 189(b)(1)(B) and MSM in section 188(e). In the same action, EPA approved the submission with respect to the requirements of section 188(e) and granted Arizona's request to extend the attainment date for the area to December 31, 2006. 67 FR 48718. This final action, as well as the two proposals preceding it, provide a more detailed discussion of the history of PM-10 planning in the Maricopa PM-10 Nonattainment Area. *See* 67 FR 48718 (July 25, 2002); 65 FR 19964 (April 13, 2000); and 66 FR 50252 (October 2, 2001).

On June 6, 2007, EPA found that the Maricopa PM-10 Nonattainment Area failed to attain the 24-hour PM-10 NAAQS by the applicable attainment date of December 31, 2006 (72 FR 31183). Accordingly, the state was required to submit a new plan meeting the requirements of section 189(d) by December 31, 2007.

On December 19, 2007, the Maricopa Association of Governments (MAG) adopted the “MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area” (2007 Five Percent Plan).<sup>1</sup> On December 21, 2007 the Arizona Department of Environmental Quality (ADEQ) submitted the 2007 Five Percent Plan and two Pinal County resolutions. EPA proposed to partially disapprove this plan on September 9, 2010. 75 FR 54806. On January 25, 2011, prior to EPA’s final action on the 2007 Five Percent Plan, Arizona withdrew the plan from the Agency’s consideration. As a result of the withdrawal of the 2007 Five Percent Plan, on February 14, 2011, EPA made a finding of failure to make a required SIP submittal. 76 FR 8300. This finding of failure to submit obligated EPA to promulgate a federal implementation plan (FIP) within two years after that date, unless the state submits and EPA approves a SIP submission meeting the requirements of section 189(d) by such date. CAA section 110(c).

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<sup>1</sup> MAG has responsibility for air quality and transportation planning in the metropolitan Phoenix region. MAG develops air quality plans in coordination with ADEQ, the Arizona Department of Transportation, and the Maricopa County Air Quality Department. *See* 2012 Five Percent Plan at ES-1; Appendix E., Exh. 2 (Resolution to Adopt the MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area).

Because EPA's evaluation of the 2012 Five Percent Plan indicates that it meets the requirements of section 189(d), EPA is proposing to approve the submission in today's action.

The 2012 Five Percent Plan was adopted by MAG on May 23, 2012 and submitted to EPA by ADEQ on May 25, 2012.<sup>2</sup> MAG adopted and ADEQ submitted the 2012 Five Percent Plan specifically to address the CAA requirements in section 189(d) for the Maricopa PM-10 Nonattainment Area. EPA reviewed the submission and found it to be complete on July 20, 2012.<sup>3</sup> EPA is proposing approval of the submission as meeting the requirements of section 189(d) in today's action.

## **II. Overview of Applicable CAA Requirements**

As a serious PM-10 nonattainment area that failed to meet its applicable attainment date, December 31, 2006, the Maricopa PM-10 Nonattainment Area is subject to CAA section 189(d). Section 189(d) provides that the state shall "submit within 12 months after the applicable attainment date, plan revisions which provide for attainment of the PM-10 air quality standard and, from the date of such submission until attainment, for an annual reduction of PM-10 or PM-10 precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for the area."

The general planning and control requirements for all nonattainment plans are found in CAA sections 110 and 172. More specific planning and control requirements relevant to the PM-10 NAAQS are found in Part D, Subpart 4, in CAA sections 188 and 189. EPA has issued a

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<sup>2</sup> Also on May 25, 2012, Arizona submitted several Arizona statutes, Maricopa County rules, a Maricopa County ordinance, and related appendices for approval into the Arizona SIP. By letter dated May 21, 2013, Arizona submitted redacted materials to clarify its May 25, 2012 submittal. By letter dated September 26, 2013, Arizona withdrew its May 21, 2013 submittal and submitted a table and redacted materials as a supplement to the May 25, 2012 submittal to clarify the materials it is requesting EPA to approve into the Arizona SIP.

<sup>3</sup> Letter from Deborah Jordan, Director, Air Division, USEPA Region 9 to Henry Darwin, Director, Arizona Department of Environmental Quality dated July 20, 2012.

General Preamble<sup>4</sup> and Addendum to the General Preamble<sup>5</sup> to provide guidance to states for meeting the CAA's requirements for the PM-10 NAAQS. The General Preamble mainly addresses the requirements for moderate nonattainment areas and the Addendum addresses the requirements for serious nonattainment areas. EPA has also issued other guidance documents related to PM-10 plans which are discussed and cited below. The specific PM-10 plan requirements addressed by this proposed action are summarized below.

### **A. Emissions Inventories**

CAA section 172(c)(3) requires that an attainment plan include a comprehensive, accurate, and current inventory of actual emissions from all sources of the relevant pollutants.

### **B. Section 189(d) Attainment Demonstration and Five Percent Requirement**

For serious PM-10 nonattainment areas that do not attain the PM-10 NAAQS by the applicable attainment date, CAA section 189(d) requires the state to submit plan revisions that provide for attainment of the NAAQS (i.e., an attainment demonstration) and provide for an annual five percent reduction in PM-10 or PM-10 precursor emissions for each year from the date of submission until attainment.<sup>6</sup> Section 189(d) specifies that the state must submit these plan revisions within 12 months of the applicable attainment date that the area failed to meet.

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<sup>4</sup> “State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,” 57 FR 13498 (April 16, 1992) (General Preamble) and 57 FR 18070 (April 28, 1992).

<sup>5</sup> “State Implementation Plans for Serious PM-10 Nonattainment Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,” 59 FR 41998 (August 16, 1994) (Addendum).

<sup>6</sup> EPA has previously determined that PM-10 precursors are not significant contributors to PM-10 levels in the Maricopa County PM-10 Nonattainment Area. See 65 FR 19971 (April 13, 2000); 67 FR 48718 (July 25, 2002). In those rulemaking notices, EPA specifically determined that the contribution from major stationary sources of PM-10 precursors was less than 0.5 percent of the annual PM-10 NAAQS. *See e.g.*, 65 FR 19971. Subsequent technical studies confirm that ambient PM-10 levels in the nonattainment area are primarily from crustal material and are not derived from organic compounds, nitrates or sulfates. *See e.g.*, “PM-10 Source Attribution and Deposition Study,” prepared by Sierra Research, Inc. for Maricopa Association of Governments (March 2008) at pg. 2 (“Local monitoring by co-located PM-10 and PM-2.5 monitors confirms that PM-2.5 on high PM-10 days is a small fraction

### **C. Reasonable Further Progress and Quantitative Milestones**

CAA section 172(c)(2) requires that implementation plans demonstrate reasonable further progress (RFP) as defined in section 171(1). Section 171(1) defines RFP as "such annual incremental reductions in emissions of the relevant air pollutant as are required by this part [part D of title I] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date." The general RFP requirement of section 172(c)(2) applies to SIP submissions necessary to meet CAA section 189(d) for the PM-10 NAAQS.

In addition, CAA section 189(c)(1) specifically applicable to the PM-10 NAAQS requires that an implementation plan contain quantitative milestones which will be achieved every 3 years and which will demonstrate that RFP is being met.

### **D. Contingency Measures**

CAA section 172(c)(9) requires that implementation plans provide for "the implementation of specific measures to be undertaken if the area fails to make reasonable further progress, or to attain the NAAQS by the attainment date applicable under this part [part D of title I]. Such measures are to take effect in any such case without further action by the State or the Administrator." The contingency measure requirement of CAA section 179(c)(9) applies to the SIP submissions necessary to meet CAA section 189(d) for the PM-10 NAAQS.

### **E. Transportation Conformity and Motor Vehicle Emissions Budgets**

Transportation conformity is required by CAA section 176(c). Our conformity rule (40 CFR part 93, subpart A) requires that transportation plans, programs, and projects conform to state air quality implementation plans and establishes the criteria and procedures for determining

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of the PM-10 concentrations. Therefore, the PM-10 problem in the Maricopa County nonattainment area is largely attributable to coarse particles, comprised primarily of geologic material."); *see also, id.* at Chapter 3.

whether or not they do so. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or any interim milestone. Once a SIP that contains motor vehicle emissions budgets (MVEBs) has been submitted to EPA, and EPA has found them adequate, these budgets are used for determining conformity: emissions from planned transportation activities must be less than or equal to the budgets.

#### **F. Adequate Authority**

CAA section 110(a)(2)(E)(i) requires that implementation plans provide necessary assurances that the state (or the general purpose local government or regional agency designated by the state for this purpose) will have adequate personnel, funding and authority under state law to carry out the requirements of such plan. Requirements for legal authority are further defined in 40 CFR part 51, subpart L (51.230-51.232) and for resources in 40 CFR 51.280. States and responsible local agencies must also demonstrate that they have the legal authority to adopt and enforce provisions of the SIP and to obtain information necessary to determine compliance.

### **III. Evaluation of the 2012 Five Percent Plan's Compliance with CAA Requirements**

#### **A. Emissions Inventories**

CAA section 172(c)(3) requires all nonattainment area plans to include a comprehensive, accurate, and current inventory of actual emissions from all sources of the relevant pollutant or pollutants in the area at issue. Our policies require that the inventory be fully documented. The 2012 Five Percent Plan uses the comprehensive "2008 PM-10 Periodic Emissions Inventory for Maricopa County, Revised 2011" (2008 PM-10 Inventory) as a starting point in the analysis.<sup>7</sup>

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<sup>7</sup> The 2008 PM-10 Inventory is included as Appendix A, Exhibit 1 to the 2012 Five Percent Plan. The 2008 PM-10 Inventory includes revisions made by MAG in 2011 to incorporate more recent vehicle registration data, and updated models and planning assumptions. *See* 2012 Five Percent Plan, Appendix B, Exh. 1, at II-10 to II-17.

The 2008 PM-10 Inventory was developed by the Maricopa County Air Quality Department (MCAQD) and the Maricopa Association of Governments (MAG) -- MCAQD prepared emission estimates for point sources and most area and nonroad mobile sources, and MAG prepared emission estimates for onroad mobile, biogenic and certain area and nonroad mobile sources. 2012 Five Percent Plan, Appendix A, Exhibit 1. The 2008 PM-10 Inventory was adjusted by MAG for economic and population changes to provide projected emissions inventories for 2007 through 2012. 2012 Five Percent Plan at p. 3-2; Appendix B, Exh. 1, Section II.

The 2008 PM-10 Inventory describes annual emissions from point, area, nonroad, on-road, and nonanthropogenic sources in the Maricopa County and the Pinal County portion of the nonattainment area.<sup>8,9</sup> The 2008 PM-10 Inventory shows that the most significant sources of emissions in the Maricopa County Nonattainment Area are unpaved roads and alleys (21 percent), construction-related fugitive dust (17 percent), paved road dust (17 percent) and windblown dust (9 percent). 2012 Five Percent Plan, Table 5–3. The 2008 PM-10 Inventory and related inventories for 2007 through 2012 are well documented by documentation meeting our guidance criteria. *See* “Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations”, EPA, August 2005 (2005 EI Guidance).

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<sup>8</sup> The 2008 PM-10 Inventory notes that Maricopa County is approximately 9,223 square miles, whereas the Maricopa County PM-10 Nonattainment Area is approximately 2,888 square miles. *See* 2012 Five Percent Plan at p. 3-2.

<sup>9</sup> The 2008 PM-10 Inventory also references “typical daily emissions.” The 2012 Five Percent Plan does not rely on “typical daily emissions” for the attainment demonstration or the five percent reduction in annual emissions; therefore, we did not comprehensively analyze these values in connection with today’s proposed action.

The base year, 2008, is a reasonably current year, considering the length of time needed to develop an inventory, perform the modeling, develop and adopt control measures, and hold public hearings on such a large and technically-complex plan.

The MAG plan inventories are sufficiently comprehensive, covering all sources of PM-10 that have been found to be important sources of relevant emissions in this and other PM-10 nonattainment areas. The 2008 PM-10 Inventory includes emissions for certain PM-10 precursors (nitrogen oxides, sulfur dioxide, and ammonia). The 2007 – 2012 projected inventories based on the 2008 PM-10 Inventory do not include emissions of PM-10 precursors; however, EPA has previously determined that these precursors do not play a significant part in the PM-10 problems in the Maricopa County PM-10 Nonattainment Area. *See* 65 FR 19971 (April 13, 2000); *see also*, note 6. EPA proposes to find again that precursors still do not play a significant part in PM-10 problems in the Maricopa County PM-10 Nonattainment Area.

In developing the inventory, MAG and MCAQD followed EPA's 2005 guidance and recommendations regarding the use of emission factors, activity estimates, and control factors, and the other source specific emission estimation methodologies. The relative accuracy of each estimate underwent the prescribed quality assurance procedures, documented in the 2008 PM-10 Inventory, Sections 2.7, 3.7, 4.14 and 5.5, to minimize possible errors. MCAQD used reasonable and accurate methods to calculate rule effectiveness.

Rule effectiveness is the estimate of the extent to which a state rule in the SIP is achieving the intended reductions. A rule is 100 percent effective only if every impacted source is in compliance at all times. Often, rules are not 100 percent effective, and this aspect must be considered when calculating the emissions reductions from the rule. The 2008 PM-10 Inventory

generally complies with EPA's guidance on calculating rule effectiveness found in Appendix B of EPA's 2005 EI Guidance.

EPA's analysis indicates the inventory is sufficiently accurate for the purposes of the 2012 Five Percent Plan. Because we find that the inventory is current, comprehensive, and accurate, we propose to approve the 2008 PM-10 Inventory and the adjusted inventories for 2007, 2009, 2010, 2011 and 2012 under CAA section 172(c)(3).

## **B. Attainment Demonstration**

EPA determines whether an area's air quality is meeting the PM-10 NAAQS based on complete, quality assured, and certified data collected at state and local air monitoring stations (SLAMS) in the nonattainment area. Attainment of the 24-hour PM-10 standard is determined by calculating the average number of expected exceedances of the standard over a three-year period. Specifically, the 24-hour PM-10 standard is attained when the expected number of exceedances averaged over a three-year period is less than or equal to one at each monitoring site within the nonattainment area.<sup>10</sup> In the case of a monitor that collects daily data, and has a full three years worth of adequate data, that monitor should show no more than one exceedance of the standard in a three year period. If all of the monitors in the nonattainment area meet the standard for the requisite period reflecting the form of the 24 hour PM-10 NAAQS, then the area has attained the standard. This point is discussed in more detail in our technical support document (TSD).<sup>11</sup>

### **1. Attainment Deadline**

The 2012 Five Percent Plan predicts attainment of the PM-10 NAAQS by December 31, 2012. For an area determined by EPA to have failed to attain by the applicable attainment date

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<sup>10</sup> 40 CFR 50.6(a); 40 CFR part 50, Appendix K.

<sup>11</sup> Technical Support Document for EPA's Action on the 2012 Five Percent Plan, U.S. EPA Region 9, January 14, 2014, Section III.

for a serious PM-10 nonattainment area, CAA sections 172(a)(2) and 179(d)(3) specify that the new attainment date is as soon as practicable, but no later than 5 years from the date of publication of the nonattainment finding in the *Federal Register*. Pursuant to these provisions, the attainment date for the Maricopa PM-10 Nonattainment Area would be as expeditiously as practicable, but not later than June 6, 2012.<sup>12</sup> CAA section 172(a)(2), however, authorizes EPA to extend the attainment deadline to the extent it deems appropriate for a period no greater than 10 years from the publication of the nonattainment finding, “considering the severity of nonattainment and the availability and feasibility of pollution control measures.” EPA believes such an extension to December 31, 2012, is warranted, based on various factors, including the following.

First, EPA notes that the PM-10 NAAQS is an calendar-based standard, which makes setting a mid-year attainment deadline (such as June 6) less appropriate than setting an end of calendar year date that would include the entire year of monitored data for comparison against the NAAQS. In addition, the 2012 Five Percent Plan explains that an extension is reasonable because modeled attainment of the PM-10 NAAQS requires implementation of a new measure, the Dust Action General Permit. *See* 2012 Five Percent Plan at p. 6-45 through 6-47. The Dust Action General Permit is a new measure developed by ADEQ and MAG following EPA’s identification of approvability issues in the 2007 Five Percent Plan, including flaws in the emissions inventory. These flaws required Arizona and MAG to develop a new emissions inventory and new attainment demonstration and to convene technical and stakeholder groups for appropriate input. One result of these processes was the Dust Action General Permit, which identifies a series of Best Management Practices (BMPs) for specific dust generating operations. When ADEQ’s Maricopa County Dust Control Forecast predicts that a day is at high risk for

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<sup>12</sup> *See* 72 FR 31183 (June 6, 2007).

dust generation, those dust generating operations that are not already required to control dust through a permit issued by the Arizona Department of Environmental Quality (ADEQ) or the Maricopa County Air Quality Department (MCAQD) are expected to choose and implement at least one BMP to reduce or prevent PM-10 emissions. The Dust Action General Permit required action by the Arizona Legislature and was not finalized until December 30, 2011.<sup>13</sup> ADEQ and MAG estimate that the Dust Action General Permit will increase the rule effectiveness of Rule 310.01 by one percent on high wind days, or 190 tons on an annual basis. 2012 Five Percent Plan at p. 5-4 and p. 6-45. ADEQ and MAG also state that modeled attainment cannot be shown without the reductions attributable to the Dust Action General Permit. It was necessary to extend the attainment date until December 2012 in order for the Dust Action General Permit to be adopted and implemented.

For these reasons, EPA concurs that an extension of the attainment deadline to December 31, 2012 is warranted.

## **2. Modeled Attainment Demonstration**

The 2012 Five Percent Plan shows attainment of the PM-10 NAAQS through modeled attainment demonstrations for the area near the Salt River in central Phoenix, (including the West 43<sup>rd</sup> Avenue monitor which recorded the most PM-10 exceedances during high wind conditions for the period 2005 - 2010) and for the entire Maricopa County PM-10 Nonattainment Area. *See generally*, 2012 Five Percent Plan, Chapter 6. MAG conducted modeling for two design days: May 4, 2007 (based on data from the West 43<sup>rd</sup> Avenue monitor), and June 6, 2007 (based on data from the Higley and West 43<sup>rd</sup> Avenue monitors). In consultation with ADEQ and EPA, MAG selected the design days and locations based on the fact that, for the past few years,

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<sup>13</sup> Arizona House Bill 2208, which added ARS 49-457.05 and authorized creation of the Dust Action General Permit, was enacted in April 2011.

measured exceedances of the PM-10 NAAQS have been associated with elevated winds. MAG's selected design days were not days that would be likely to be considered a high wind exceptional event (i.e., the geographic extent of the exceedances did not suggest the occurrence of an area-wide storm event). EPA's detailed analysis of the modeling can be found in Section IV of the TSD for this action. The modeling was conducted in a way that was consistent with EPA guidance and the input of EPA technical experts. The modeling indicates that the emission reductions in the plan should result in PM-10 levels that are consistent with the NAAQS by December 31, 2012. This attainment modeling was confirmed by the monitoring data as described in the next section of this proposal. Therefore, EPA proposes to find that the 2012 Five Percent Plan's attainment demonstration provides sufficient assurance that the control measures implemented in the nonattainment area will be sufficient to ensure ongoing compliance with the PM-10 standard in the Maricopa County PM-10 Nonattainment Area.

### **3. Monitoring Data Showing Attainment**

EPA is also taking into account the fact that monitoring data recorded at air quality monitors throughout the Maricopa County PM-10 Nonattainment Area show that the area in fact reached attainment of the PM-10 NAAQS by December 31, 2012. Attainment of the 24-hour PM-10 standard is determined by calculating the average number of expected exceedances of the standard over a three-year period. Specifically, the 24-hour PM-10 standard is attained when the expected number of exceedances averaged over a three-year period is less than or equal to one at each monitoring site within the nonattainment area. During the 2010-2012 time period, MCAQD operated fifteen PM-10 monitors, while ADEQ and the Pinal County Air Quality Control District (PCAQCD) operated an additional three PM-10 monitoring stations in the area. EPA's analysis

indicates that all of these monitors have an expected exceedance of less than one for the years 2010-2012.

EPA's review of monitoring data for the 24-hour PM-10 NAAQS for the Maricopa County PM-10 Nonattainment Area includes exceedances of the standard recorded during the 2010 – 2012 time period. However, EPA does not consider these exceedances of the NAAQS to be violations because they were the result of exceptional events. ADEQ submitted three packages containing demonstrations for high wind PM-10 exceptional events covering a total of one hundred thirty-three measured exceedances occurring over twenty-seven days in the years 2011 and 2012 at monitors within the Maricopa County PM-10 Nonattainment Area. EPA reviewed the documentation that ADEQ provided to demonstrate that the exceedances on these days meet the criteria for an exceptional event in EPA's Exceptional Events Rule (EER).<sup>14</sup> EPA concurred with ADEQ's requests for exceptional event determinations, based on the weight of evidence, that one hundred thirty-one of the one hundred thirty-three exceedances were caused by high wind exceptional events.<sup>15</sup> Accordingly EPA has determined that the monitored exceedances associated with these exceptional events should not be used for regulatory purposes, including for evaluation of the CAA section 189(d) plan submission. Excluding these exceedances caused predominantly by uncontrollable emissions, EPA proposes to determine that the Maricopa County PM-10 Nonattainment Area has attained the 24-hour PM-10 NAAQS based on the monitors operated by ADEQ, MCAQD and PCAQD. This is consistent with attainment of the standard projected by the state in the 2012 Five Percent Plan.

Monitors operated by tribal governments in the nonattainment area also provide data that can be considered to evaluate attainment. The Salt River Pima-Maricopa Indian Community

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<sup>14</sup> 40 CFR §§50.1(j), (k), (l); 50.14; 51.930.

<sup>15</sup> See Letters from Jared Blumenthal, Regional Administrator, EPA Region 9, to Eric Massey, Director, Air Division, ADEQ, dated September 6, 2012, May 6, 2013, and July 1, 2013.

operates three PM-10 monitoring stations on tribal land within the Maricopa County PM-10 Nonattainment Area that meet the requirements of 40 CFR part 58 and are therefore appropriate to consider when determining if the area has attained the standard. As our analysis in Section III of the TSD indicates, these monitors show exceedances of the standard on three days during the 2010-2012 time period. Two of those exceedances (both on July 8, 2011) were during area-wide storms that resulted in exceedances at the non-tribal monitors that EPA has already determined were caused by exceptional events. EPA TSD Section III. The third exceedance (on July 2, 2011) appears to be related to local sources rather than an exceptional event. Pursuant to 40 CFR 49.10, however, EPA cannot disapprove a state SIP submittal because of the “failure to address air resources within the exterior boundaries of an Indian Reservation or other areas within the jurisdiction of an Indian tribe.” Therefore, we did not further consider these exceedances as part of this proposed action to approve the 2012 Five Percent Plan.

The plan submitted by the state projected that the Maricopa County PM-10 Nonattainment Area would attain by December 31, 2012, because that was the most expeditious attainment date practicable considering the severity of nonattainment and the availability of controls in the area. Monitoring data for the years 2010-2012, taking into account EPA’s determinations with respect to exceptional events during that period, indicate that the area attained the standard as of December 31, 2012.<sup>16</sup>

EPA proposes to find that the 2012 Five Percent Plan meets the requirement to demonstrate attainment by the appropriate attainment date. This proposed finding is based on our

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<sup>16</sup> Additional exceedances of the PM-10 NAAQS occurred on six days between April and October 2013. Arizona has indicated its intent to submit documentation regarding these exceedances to EPA and to request that EPA concur with the state’s determination that they qualify as exceptional events. EPA will evaluate the state’s submissions and requests consistent with the EER and relevant guidance.

analysis of the modeling described in the plan and analysis of the monitoring data for the years 2010-2012.

### C. Five Percent Requirement

CAA section 189(d) requires a state with a serious PM-10 nonattainment area that fails to attain the PM-10 NAAQS by the applicable attainment deadlines to submit within 12 months after the applicable attainment date plan revisions which provide an annual five percent reduction in emissions of PM-10 or PM-10 precursors in the area from the date of the submission until attainment, based on the most recent inventory.

The 2012 Five Percent Plan’s demonstration of annual five percent reductions is found in Chapter 5. Arizona and MAG used the 2008 PM-10 Inventory as the “most recent inventory” and derived emissions levels for years 2007-2012 based upon the 2008 PM-10 Inventory. *See* Five Percent Plan at p. 5-4. The demonstration of annual five percent reductions uses 2007 as the baseline from which the five percent reductions are calculated and as point at which the reductions should start.<sup>17</sup> The 2012 Five Percent Plan’s demonstration is summarized in Table 1, below.

**Table 1: 2012 Five Percent Plan Emissions by Year**

Year	2007	2008	2009	2010	2011	2012
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<sup>17</sup> EPA believes Arizona’s use of 2007 as the baseline for five percent reductions is reasonable and consistent with Congress’ intent. Section 189(d) states that plans are due *within 12 months of the missed attainment deadline* and that the plans should provide for annual five percent reductions *from the date of the submission until attainment*. Arizona’s attainment deadline was December 31, 2006. 67 FR 48718 (July 25, 2002). Accordingly, a submittal to fulfill section 189(d) was due by December 31, 2007, and reductions should have begun to occur as of that date. *See* 72 FR 31183 (June 6, 2007). The decline in emissions from 2007 to 2008 shows that reductions did, in fact, begin to occur within that time frame. *See* Table 1. Arguably, these reductions occurred outside the literal time frame specified by Congress (i.e., “the date of the submission” of the plan) because the 2012 Five Percent Plan was not submitted until May 26, 2012. We note that Arizona had submitted the 2007 Five Percent Plan on December 21, 2007 (although it withdrew the plan on January 25, 2011). EPA believes that it is appropriate and consistent with Congress’s intent for expeditious attainment of the NAAQS that we consider reductions that occurred prior to the submittal of the 2012 Five Percent Plan.

<b>Baseline Inventory<sup>18</sup></b>	59,218	56,681	52,123	50,497	49,743	49,673
<b>Controlled Inventory<sup>19</sup></b>	59,218	49,231	45,600	44,062	43,438	43,130
<b>Annual Reduction</b>		9,987	3,631	1,538	624	308
<b>Cumulative Reduction</b>		9,987	13,618	15,156	15,780	16,088
<b>Target Reduction</b>		2,961	5,922	8,883	11,844	14,805

The “baseline inventory” values are derived from the 2008 PM-10 Inventory as adjusted by population and economic growth factors from the University of Arizona. *See* 2012 Five Percent Plan, at p. 5-4 and p. 5-5, Table 5-2. The “controlled inventory” values show emission levels after taking into account reductions attributable to adopted control measures, specifically, Rules 310, 310.01 and 316, and the Dust Action General Permit. *See* 2012 Five Percent Plan at p. 5-1 through 5-6; *see also*, p. 5-7, Table 5-3. “Annual reduction” is the mathematical difference between the prior year controlled inventory and the current year controlled inventory. “Cumulative reduction” is the running total of actual reductions starting with 2007 and continuing to the attainment year of 2012. The target required reduction is five percent of the base year (2007) inventory (2,961 tons per year) for the first year (2008), and additional reductions of five percent per year, until the attainment year of 2012.

The “controlled inventory” values reflect emission reductions due to improved compliance with Maricopa County Rules 310 (Fugitive Dust from Dust-Generating Operations), 310.01 (Fugitive Dust from Non-Traditional Sources of Fugitive Dust) and 316 (Nonmetallic Mineral Processing) as well as the benefits of the Dust Action General Permit in 2012.<sup>20</sup>

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<sup>18</sup> Table 5-2

<sup>19</sup> Table 5-3

<sup>20</sup> EPA has approved Rules 310, 310.01 and 316 into the Arizona SIP. 75 FR 78167 (Dec. 15, 2010); 74 FR 58554 (Nov. 13, 2009). EPA has also approved Arizona statutory provisions related to the Dust Action General Permit. 78 FR 72579 (Dec. 3, 2013). EPA intends to propose action on the Dust Action General Permit in the near future.

Maricopa County has been inspecting sources subject to these rules and tracking the extent to which the sources are complying with the regulations. Based on these data, MCAQD calculated rule effectiveness values for each rule. *See* 2012 Five Percent Plan, Appendix B, Chapter 3.

The 2012 Five Percent Plan demonstrates compliance with the five percent reduction requirement by comparing the cumulative reductions from the Dust Action General Permit and increased effectiveness of the Maricopa County rules against the total five percent reductions each year. Most of the required reductions were achieved in the early years of the plan. EPA encourages this approach as it accelerates the environmental benefits of the reductions.<sup>21</sup>

#### **D. Reasonable Further Progress and Quantitative Milestones**

Pursuant to sections 172 (c)(3) and 189(c)(1), the state must demonstrate RFP in the 2012 Five Percent Plan. We have explained in guidance that for areas such as the Maricopa County PM-10 Nonattainment Area where “the nonattainment problem is attributed to area type sources (e.g., fugitive dust, residential wood combustion, etc.), RFP should be met by showing annual incremental emission reductions sufficient generally to maintain linear progress towards attainment. Total PM-10 emissions should not remain constant or increase from 1 year to the next in such an area.” Addendum at 42015. Further, we have stated that, “in reviewing the SIP, EPA will determine whether the annual incremental emission reductions to be achieved are reasonable in light of the statutory objective to ensure timely attainment of the PM-10 NAAQS.” *Id.* at 42016.

CAA section 189(c) further requires PM-10 attainment plans to contain quantitative milestones that are to be achieved every three years and that are consistent with RFP for the area. These quantitative milestones should consist of elements that allow RFP to be quantified or

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<sup>21</sup> This approach is consistent with the approach taken in a previous section 189(d) plan for the San Joaquin Valley. *See* 69 FR 5411 (Feb. 4, 2004) and 69 FR 30006 (May 25, 2004).

measured objectively. Specifically, states should identify and submit quantitative milestones that allow for evaluation of whether the plan is obtaining emission reductions adequate to achieve the NAAQS by the applicable attainment date. *Id.* at 42016.

The 2012 Five Percent Plan provides a reasonable further progress (RFP) demonstration in Chapter 6. *See* 2012 Five Percent Plan at 6-34 through 6-36. This analysis uses the controlled inventory totals by year as shown in Table 1 of this proposal. Specifically, the 2012 Five Percent Plan shows the following levels of PM-10, which decline between 2007 and 2012:

2007 -- 59,218 tons

2008 – 49,231 tons

2009 – 45,600 tons

2010 -- 44,062 tons

2011 – 43,438 tons

2012 -- 43,130 tons

The analysis required for the five percent demonstration provides annual emission targets between the base year of 2007 and the attainment year of 2012. These annual totals show a steady downward trend in emissions that fulfills the milestone requirement of every three years. *See* 2012 Five Percent Plan at 6-36, Fig. 6-6. The trend is more sharply downward in the initial years because most of the improvements in rule effectiveness occurred in 2008. *Id.* at 35-36. EPA proposes to find that the 2012 Five Percent Plan has demonstrated reasonable further progress and that by setting annual target emission levels, the plan has exceeded the requirement to provide for milestones every three years.

## **E. Contingency Measures**

CAA section 172(c)(9) requires that attainment plans provide for the implementation of specific measures to be undertaken if the area fails to meet RFP requirements or fails to attain the PM-10 standard as projected in the plan. That section further requires that such measures are to take effect in any such case without further action by the state or EPA. The CAA does not specify how many contingency measures are necessary nor does it specify the level of emission reductions they must produce.

In guidance we have explained that the purpose of contingency measures is to ensure that additional emission reductions beyond those relied on in the attainment and RFP demonstrations are available immediately if there is a failure to meet RFP requirements or a failure to attain by the applicable statutory date. Addendum at 42014-42015. Contingency measures must consist of measures that the state is not otherwise relying on to meet other attainment plan requirements in the area. Thus, these additional emission reductions that will be achieved by the contingency measures ensure continued progress towards attainment while the state is revising the SIP to correct the failure to meet RFP or to attain. To that end, we recommend that contingency measures for PM-10 nonattainment areas provide emission reductions equivalent to one year's average increment of RFP. *Id.*

In interpreting the requirement that the contingency measures must "take effect without further action by the State or the Administrator," the General Preamble provides the following general guidance: "[s]tates must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions such as public hearings or legislative review." General Preamble at 13512.<sup>22</sup> Further, "[i]n general, EPA will

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<sup>22</sup> EPA elaborated on its interpretation of this language in section 172(c)(9) in the General Preamble in the context of the ozone standard: "The EPA recognizes that certain actions, such as notification of sources, modification of permits, etc., would probably be needed before a measure could be implemented effectively." General Preamble at 13512.

expect all actions needed to affect full implementation of the measures to occur within 60 days after EPA notifies the State of its failure." *Id.* The Addendum at 42015 reiterates this interpretation.

We have also interpreted section 172(c)(9) to allow states to implement contingency measures before they are triggered by a failure of RFP or attainment as long as those measures are intended to achieve emission reductions over and beyond those relied on in the attainment and RFP demonstrations. *Id.*; *see also, LEAN v. EPA*, 382 F.3d 575 (5th Cir. 2004).

The 2012 Five Percent Plan calculated the target for contingency measure reductions by subtracting the attainment year 2012 emissions (43,130 tons) from the 2007 baseline emissions (59,218 tons) and dividing by five years, yielding a target of 3,218 tons per year. 2012 Five Percent Plan at 6-37. EPA proposes to find that this method of calculating the target for contingency measure reductions is consistent with CAA requirements and EPA guidance and we propose to approve this target value for contingency measures.

The contingency measures are shown in Table 6-22 of the 2012 Five Percent Plan and are composed of various methods to reduce fugitive dust emissions from roads. The most significant reductions are from paving dirt roads and alleys; other reductions result from street sweeping of freeways, ramps and frontage roads, lower speed limits on dirt roads and alleys, and paving and stabilizing of unpaved shoulders. The measures were implemented in the years 2008 through 2012. These contingency measures are surplus to the measures used to demonstrate five percent reductions, RFP, and attainment. The method used to estimate emissions reductions from these contingency measures are consistent with EPA recommended calculation methods for such measures and the total reductions exceed the target of one year of RFP. EPA proposes to approve the contingency measures described in the 2012 Five Percent Plan.

## F. Transportation Conformity and Motor Vehicle Emissions Budgets

Transportation conformity is required by CAA section 176(c). Our conformity rule (40 CFR part 93, subpart A) requires that transportation plans, programs, and projects conform to state air quality implementation plans and establishes the criteria and procedures for determining whether or not they do so. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or the timely achievement of interim milestones.

The 2012 Five Percent Plan specifies the maximum transportation-related PM-10 emissions allowed in the proposed attainment year, 2012, i.e., the MVEB of 54.9 metric tons per day (mtpd). 2012 Five Percent Plan at p. 6-43. This budget includes emissions from road construction, vehicle exhaust, tire and brake wear, dust generated from unpaved roads and re-entrained dust from vehicles traveling on paved roads. This budget is based on the 2012 emissions inventory that was projected from the 2008 PM-10 Inventory and reflects emission reductions that the plan expects will result from the control measures. The budget is consistent with the attainment, five percent and RFP demonstrations in the Plan.

On September 12, 2013, we announced receipt of the 2012 Five Percent Plan on the Internet and requested public comment on the adequacy of the MVEB by October 15, 2013. We did not receive any comments during the comment period. During that time we reviewed the MVEB and preliminarily determined that it met the adequacy criteria in 40 CFR 93.118(e)(4) and (5). We sent a letter to ADEQ and MAG dated November 22, 2013 stating that the 2012 motor vehicle PM-10 emissions budget for the Maricopa area in the submitted plan was adequate. Our finding was published in the *Federal Register* on December 5, 2013, effective December 20, 2013. 78 FR 73188.

Now that EPA has thoroughly reviewed the submitted SIP, we are proposing to approve the MVEB for 2012 as part of our approval of the 2012 Five Percent Plan. EPA has determined that the MVEB emission target is consistent with emission control measures in the SIP and the attainment demonstration, five percent demonstration and RFP demonstration. The details of EPA's evaluation of the MVEB for compliance with the budget adequacy criteria of 40 CFR 93.118(e) is provided in a separate document included in the docket of this rulemaking.<sup>23</sup>

### **G. Adequate Legal Authority**

Section 110(a)(2)(E)(i) of the Clean Air Act requires that implementation plans provide necessary assurances that the state (or the general purpose local government) will have adequate personnel, funding and authority under state law. Requirements for legal authority are further defined in 40 CFR part 51, subpart L (section 51.230-232) and for resources in 40 CFR 51.280.

States and responsible local agencies must demonstrate that they have the legal authority to adopt and enforce provisions of the SIP and to obtain information necessary to determine compliance. These requirements are addressed in cover letters and submittal package for the 2012 Five Percent Plan.<sup>24</sup>

MAG derives its authority to develop and adopt air quality plans, including the 2012 Five Percent Plan, from ARS 49-406 and from a February 7, 1978 letter from the Governor of Arizona designating MAG as responsible for those tasks.<sup>25</sup> ADEQ is authorized to adopt and submit the 2012 Five Percent Plan by ARS 49-404 and ARS 49-406. MCAQD implements air

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<sup>23</sup> See "Transportation Conformity Adequacy Review" by Greg Nudd, EPA Region 9, November 11, 2013.

<sup>24</sup> See Completeness Determination Checklist (EPA, July 2, 2012) for details on the location of the documentation of authority.

<sup>25</sup> Letter from Wesley Bolin, Governor of Arizona, to Douglas M. Costle, Administrator of EPA, February 7, 1978. 2012 Five Percent Plan, Appendix E, Exh. 2.

quality programs within Maricopa County. Pinal County Air Quality Control District implements air quality programs within Pinal County.

For the reasons discussed above, we propose to find that the requirements of section 110(a)(2)(E) and related regulations have been met with respect to legal authority.

#### **IV. Summary of Proposed Actions**

EPA is proposing to approve the 189(d) plan for the Maricopa County (Phoenix) PM-10 nonattainment area. Specifically, we propose to approve the following:

(A) the 2008 baseline emissions inventory and the 2007, 2009, 2010, 2011 and 2012 projected emission inventories as meeting the requirements of CAA sections 172(c)(3);

(B) the attainment demonstration as meeting the requirements of CAA sections 189(d) and 179(d)(3);

(C) the 5% demonstration as meeting the requirements of CAA section 189(d);

(D) the reasonable further progress and quantitative milestone demonstrations as meeting the requirements of CAA section 172(c)(2) and 189(c);

(E) the contingency measures as meeting the requirements of CAA sections 172(c)(9);  
and

(F) the Motor Vehicle Emissions Budget as compliant with the budget adequacy requirements of 40 CFR 93.118(e).

#### **V. Statutory and Executive Order Reviews**

##### **A. Executive Order 12866, Regulatory Planning and Review**

The Office of Management and Budget (OMB) has exempted this regulatory action from

Executive Order 12866, entitled “Regulatory Planning and Review.”

#### B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* Burden is defined at 5 CFR 1320.3(b).

#### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

This rule will not have a significant impact on a substantial number of small entities because SIP approvals or disapprovals under section 110 and subchapter I, part D of the Clean Air Act do not create any new requirements but simply approve or disapprove requirements that the State is already imposing. Therefore, because the proposed Federal approval of the SIP does not create any new requirements, I certify that this action will not have a significant economic impact on a substantial number of small entities.

Moreover, due to the nature of the Federal-State relationship under the Clean Air Act, preparation of flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co., v. U.S. EPA*, 427 U.S. 246, 255-66 (1976); 42 U.S.C. 7410(a)(2).

#### D. Unfunded Mandates Reform Act

Under sections 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded

Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the proposed approval action does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This Federal action proposes to approve pre-existing requirements under State or local law, and imposes no new requirements.

Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

#### E. Executive Order 13132, Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.” Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and

that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely proposes to approve a State rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

#### F. Executive Order 13175, Coordination With Indian Tribal Governments

Executive Order 13175, entitled “Consultation and Coordination with Indian Tribal Governments” (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure “meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.” This proposed rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. Thus, Executive Order 13175 does not apply to this rule. However, even though EPA is acting on a State plan, and that plan does not apply in Indian Country, there are four tribes located within the PM-10 nonattainment area, several of which have imposed particulate control measures of their own in order to reduce PM-10 concentrations. EPA informed tribal

environmental staff regarding the proposed approval so that the tribes could inform their leadership and participate in the public comment process if desired.

EPA specifically solicits additional comment on this proposed rule from tribal officials.

#### G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. This rule is not subject to Executive Order 13045, because it approves a state rule implementing a Federal standard.

#### H. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations in the United States. The Executive Order has informed the development and implementation of EPA’s environmental justice program and policies. Consistent with the Executive Order and the associated Presidential Memorandum, the Agency’s environmental justice policies promote environmental protection by focusing attention and Agency efforts on

addressing the types of environmental harms and risks that are prevalent among minority, low-income and Tribal populations.

This action will not have disproportionately high and adverse human health or environmental effects on minority, low-income or Tribal populations because the action proposed increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.

#### I. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211, “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use” (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

#### J. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, EPA must consider and use “voluntary consensus standards” (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical.

EPA believes that VCS are inapplicable to this action. Today's action does not require the public to perform activities conducive to the use of VCS.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

**Authority:** 42 U.S.C. 7401 *et seq.*

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Dated:

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Jared Blumenfeld,  
Regional Administrator,  
Region IX.

January 16, 2014

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: EVALUATION OF PROPOSED PM-10 CERTIFIED STREET SWEEPER PROJECTS  
FOR FY 2014 CMAQ FUNDING

The Maricopa Association of Governments staff has evaluated proposed PM-10 Certified Street Sweeper Projects for emission reductions and corresponding cost-effectiveness for FY 2014 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds. Thirteen projects requesting approximately \$2.7 million in federal funds were evaluated. The evaluation of these projects and supplemental information are included in the attachment. The proposed projects have been listed in order of cost-effectiveness based on the amount of CMAQ funding requested. Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to recommend a prioritized list of PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ funding to the MAG Management Committee.

#### BACKGROUND

The purchase of PM-10 certified street sweeper projects supports the measure "PM-10 Efficient Street Sweepers" in the Revised MAG 1999 Serious Area Particulate Plan for PM-10. In addition, the MAG 2012 Five Percent Plan for PM-10 includes PM-10 Certified Street Sweepers. The FY 2014 Unified Planning Work Program and FY 2011-2015 MAG Transportation Improvement Program contain \$900,000 in FY 2014 CMAQ funding to encourage the purchase and utilization of PM-10 certified street sweepers. An additional \$330,599 in CMAQ is available from sweeper projects that have been requested to be deleted and from savings on sweepers that have cost less than anticipated, for a total amount of \$1,230,599. The purpose of the CMAQ program is to fund projects and programs in nonattainment and maintenance areas that assist in achieving air quality standards. A minimum local cash match of 5.7 percent on the CMAQ eligible portion of the project is required.

On October 23, 2013, MAG solicited PM-10 certified street sweeper projects in the PM-10 nonattainment areas from member agencies. Eligible street sweepers are defined as those which have been certified by the South Coast Air Quality Management District as meeting that agency's Rule 1186 certification standards. Project requests were due by November 22, 2013.

## EVALUATION AND PROJECT RANKING

According to the approved MAG Federal Fund Programming Guidelines and Procedures, project applications are to be reviewed by the MAG Street Committee. On December 10, 2013, the Street Committee conducted a review of the PM-10 Certified Street Sweeper project applications. On January 14, 2014, the MAG Street Committee also discussed the projects. A summary of the discussion from both meetings is attached.

MAG staff estimated the emission reductions and cost-effectiveness using the CMAQ funding requested, based on the September 30, 2011 CMAQ Methodologies. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection. The FY 2014 PM-10 Certified Street Sweeper Project requests, evaluation, and supplemental information are provided in the attachment. The proposed projects have been listed in descending order of cost-effectiveness based on the amount of CMAQ funding requested.

Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to make a recommendation on a prioritized list of proposed projects for FY 2014 CMAQ funding to the MAG Management Committee. After the MAG Regional Council approval of projects for funding, MAG will issue a formal authorization to proceed with the purchase of the proposed street sweepers in a letter to the project sponsor. To assist MAG in reducing the amount of obligated federal funds, MAG is requesting that street sweepers be purchased and reimbursement be requested by the project sponsor within one year plus ten calendar days from the date of the MAG authorization letter.

If you have any questions or need additional information, please contact me at (602) 254-6300.

Attachments



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\* Total cost for the CMAQ eligible portion of the project, excludes ineligible equipment.

+ Proposed sweeper projects for Tempe, Phoenix #2, El Mirage, Queen Creek, Surprise #2, Surprise #1, Phoenix #1, Pinal County, Mesa #1, and Mesa #2 indicate sweeping within four miles of a PM-10 monitor.

++ The total number of certified street sweepers owned and operated by the agency, regardless of funding source.

**Street Committee  
Presentation and Review Note Sheet**

Paving Projects presented

Committee Discussion

Sponsor	Project	Requested MAG Programming	Year	Local Funding Source	Local Cost	CMAQ COST	Total Cost	Notes: Street Committee 12-10-2013	Notes: Street Committee: 1-14-2014
Maricopa City	Hartman Road Paving	11. Design	2014	County Road Tax	82,303		82,303	Question: Chip seal eligible?, Answer by MAG: Yes MAG received positive from FHWA and ADOT. Question asked: Timeline for developer? Imminent? Answer: Developer is in preplat stage currently. Comment: That could take up to ten years. Question: Could you coordinate with the developer to design and build a pavement roadway? Question: Is there a possibility that this project may not meet eligibility by FHWA and it gets canceled? Answer: It could happen, we also have the opportunity to accept from the applicant if they choose to modify their application. Comment: we were looking to get the largest return to mitigate the current dust problem in a short time frame. Comment: another option could be to propose a half street development if the City would be interested. Question: Can we work with the developers? Answer: Yes we at our city do.	Further technical discussion the project resulted in a request to also evaluate the project using a 10 year life cycle.
Maricopa City	Hartman Road Paving	12. Right of way and Utilities		0	0	0			
Maricopa City	Hartman Road Paving	13. Construction	2015	County Road Tax	8,623	529,522	538,145		
					<b>\$ 90,926</b>	<b>\$ 529,522</b>	<b>\$ 620,448</b>		

Pinal	Barnes Road from White & Parker Road to Fuqua Road	11. Design	2014	HURF	15,960	264,040	280,000	Question: Does this connect pavement to pavement? Answer: Yes. Question: is the 2015 ROW needed for time? Answer: There are no ROW or utilities clearance, we need to go through the verification stage. From ADOT: Allow 18-24 months for the environmental clearances; we prefer this time spread or more, design will be tight for FY2014. Question: are you sure about ROW? Answer: we are 85% sure there are no ROW issues, but we allow time just in case. Comment: by granting federal design they will be required to complete the project. ADOT response: Yes, a 10 year window to acquire ROW or begin construction.	
Pinal	Barnes Road from White & Parker Road to Fuqua Road	12. Right of way and Utilities	2015		0	0	0		
Pinal	Barnes Road from White & Parker Road to Fuqua Road	13. Construction	2016	HURF	82,213	1,360,119	1,442,332		
					<b>\$ 98,173</b>	<b>\$ 1,624,159</b>	<b>\$ 1,722,332</b>		

Pinal-CG	Midway Road Paving Project	11. Design	2015	City of Casa Grande	115,000	0	115,000	Question: Is this the Pinal County funding? Answer: Yes this is the PM 2.5 CMAQ funding for this Call For Projects. Question: are paved shoulders required? Answer: they are not required (MAG), we will have 2' paved shoulders (Pinal Co.). -That is our standard. ADOT: please contact your DE about this project to let them know you will be meeting an ADOT facility.	Question: Is this a Casa Grande project? Answer: Yes, Casa Grande has partnered with Pinal Co as the lead agency and is submitting this request. Question: Is this using MAG funds or Pinal Co funds? Answer: It is using MAG's allocation of PM 2.5 CMAQ funds that may only be used in Pinal County within the PM-2.5 non-attainment area. Pinal County as a member agency
Pinal-CG	Midway Road Paving Project	12. Right of way and Utilities	2015	City of Casa Grande	0	0	0		
Pinal-CG	Midway Road Paving Project	13. Construction	2017	City of Casa Grande	112,200	1,178,750	1,290,950		
					<b>\$ 227,200</b>	<b>\$ 1,178,750</b>	<b>\$ 1,405,950</b>		

<b>Street Sweeper Questions and Comments:</b>								Question: Waiver for the Buy America need? I thought we needed a waiver every time we go through the process. Answer: AQ staff is reviewing this now. We are using the South Coast AQ Management List for Certified PM 10 sweepers. Question: Some sweepers are lower cost then several of the other applications. Are they a little light? Answer: the lower costs may be due to not requesting non-eligible add ons.	Question: For the Buy America requirement, do all accessories also need to meet the requirement? Will we need to list in our request for waiver? Staff will contact FHWA for answer.
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**The Street Committee recommended the list of projects for air quality scoring and evaluation.**

January 16, 2014

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: EVALUATION OF PROPOSED PAVING UNPAVED ROAD PROJECTS IN THE PINAL PM-2.5 NONATTAINMENT AREA FOR FISCAL YEARS 2014, 2015, 2016, AND 2017 CMAQ FUNDING

The Maricopa Association of Governments staff has evaluated proposed Paving Unpaved Road Projects in the West Central Pinal PM-2.5 Nonattainment Area for emission reductions and corresponding cost-effectiveness for fiscal years 2014, 2015, 2016, and 2017 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds. Fiscal Year 2013 CMAQ has been carried forward into FY 2014 and the total amount available for paving unpaved road projects is \$3.36 million. In total, four paving unpaved road projects requesting approximately \$3.33 million in federal funds were evaluated. Only one project was submitted for each Fiscal Year. The estimated emission reductions and cost-effectiveness of the proposed projects based on the amount of CMAQ funding requested are provided in the attachment. Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to forward the Paving Unpaved Road Projects for fiscal years 2014, 2015, 2016, and 2017 CMAQ funding to the MAG Transportation Review Committee.

#### BACKGROUND

The Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) legislation calls for States that have PM-2.5 nonattainment and maintenance areas to use a portion of its CMAQ funds for projects that reduce PM-2.5 in those areas. The Arizona Department of Transportation has allocated approximately \$672,000 in PM-2.5 CMAQ funding to MAG for programming projects that reduce PM-2.5 in portions of the Pinal PM-2.5 nonattainment area located within the planning boundaries of both MAG and the Sun Corridor Metropolitan Planning Organization. The estimated CMAQ amount is subject to change based on final funding levels from MAP-21. A minimum local cash match of 5.7 percent on the CMAQ eligible portion of the project is required. On October 23, 2013, MAG solicited Paving Unpaved Road Projects in the Pinal PM-2.5 nonattainment area from member agencies. Jurisdictions in the Pinal PM-2.5 nonattainment area that could apply included the City of Maricopa and Pinal County as well as Pinal County as the lead agency for the City of Casa Grande. Project requests were due by November 22, 2013.

## PROJECT EVALUATION

According to the approved MAG Federal Fund Programming Guidelines and Procedures, project applications are to be reviewed by the MAG Street Committee. On December 10, 2013 the Street Committee conducted a review of the PM-10 Paving Unpaved Road project applications. On January 14, 2014, the MAG Street Committee also discussed the projects. A summary of the discussion from both meetings is attached.

MAG staff estimated the emission reductions and cost-effectiveness using the CMAQ funding requested, based on the September 30, 2011 CMAQ Methodologies. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection. The estimated emission reductions and cost-effectiveness of the proposed fiscal year 2014, 2015, 2016, and 2017 Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for each funding year are provided in the attachment.

Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to forward the proposed Paving Unpaved Road Projects for fiscal years 2014, 2015, 2016, and 2017 CMAQ funding to the MAG Transportation Review Committee. The MAG Transportation Review Committee may consider the Paving Unpaved Road Projects on January 30, 2014. The recommendations may be considered by the MAG Management Committee, the Transportation Policy Committee, and the MAG Regional Council in February 2014.

If you have any questions or need additional information, please contact me at (602) 254-6300.

Attachments

**Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2014 CMAQ Funding Listed in Order of Cost-Effectiveness**  
**\$1,344,000 available in FY 2014 (with FY 2013 Carryforward)**

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMAQ Funds Requested
Pinal County	Barnes Rd. from White & Parker Rd. to Fuqua Rd and Fuqua Rd. from Barnes Rd. to Lealand Rd.	Design Pave Dirt Road	2014	2.5	0.00	0.00	276.17	276.17	\$1,083	\$264,040
<b>Subtotal</b>										<b>\$264,040</b>
<b>Amount Available</b>										<b>\$1,344,000</b>
<b>Balance</b>										<b>\$1,079,960</b>

**Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2015 CMAQ Funding Listed in Order of Cost-Effectiveness**  
**\$672,000 available in FY 2015**

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMAQ Funds Requested
City of Maricopa	Hartman Rd. from Maricopa-Casa Grande Hwy. to 1.5 miles north	Construct Pave Dirt Road	2015	1.0	0.00	0.00	80.16	80.16	\$2,122	\$529,522
<b>Subtotal</b>										<b>\$529,522</b>
<b>Amount Available</b>										<b>\$672,000</b>
<b>Balance</b>										<b>\$142,478</b>

**Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2016 CMAQ Funding Listed in Order of Cost-Effectiveness**  
**\$672,000 available in FY 2016**

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMAQ Funds Requested
Pinal County	Barnes Rd. from White & Parker Rd. to Fuqua Rd and Fuqua Rd. from Barnes Rd. to Lealand Rd.	Construct Pave Dirt Road	2016	2.5	0.00	0.00	276.17	276.17	\$1,083	\$1,360,119
<b>Subtotal</b>										<b>\$1,360,119</b>
<b>Amount Available</b>										<b>\$672,000</b>
<b>Balance</b>										<b>-\$688,119</b>

**Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area For FY 2017 CMAQ Funding Listed in Order of Cost-Effectiveness**  
**\$672,000 available in FY 2017**

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMAQ Funds Requested
Pinal County - City of Casa Grande	S. Midway Rd. from W. Clayton Rd. to Casa Grande city limits and from Gila Bend Hwy. to W. Clayton Rd.	Construct Pave Dirt Road	2017	1.5	0.00	0.00	18.38	18.38	\$11.808	\$1,178,750
<b>Subtotal</b>										<b>\$1,178,750</b>
<b>Amount Available</b>										<b>\$672,000</b>
<b>Balance</b>										<b>-\$506,750</b>

**Street Committee  
Presentation and Review Note Sheet**

Paving Projects presented

Committee Discussion

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**The Street Committee recommended the list of projects for air quality scoring and evaluation.**

<b>Estimated Programming <u>Costs</u> for PM 2.5 Area Paving Projects</b>					
<b>CMAQ PM2.5 Paving COSTS</b>					
<b>Work Phases</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Grand Total</b>
11. Design	264,040	-			264,040
12. Right of way and Utilities		-			-
13. Construction		529,522	1,360,119	1,178,750	3,068,391
<b>Grand Total</b>	<b>264,040</b>	<b>529,522</b>	<b>1,360,119</b>	<b>1,178,750</b>	<b>3,332,431</b>

Scenario A: Recommended Programming for PM-2.5 Paving of Unpaved Dirt Roads

<b>Estimates</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Carry forward	672,136	1,080,232	1,222,846	534,863	28,249
Revenues/Appportionments	672,136	672,136	672,136	672,136	672,136
Costs	264,040	529,522	1,360,119	1,178,750	
<b>Balance</b>	<b>1,080,232</b>	<b>1,222,846</b>	<b>534,863</b>	<b>28,249</b>	<b>700,385</b>