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April 19, 2012

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Oddvar Tveit, Tempe, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, April 26, 2012 - 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 Tveit 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 February 23, 2012 Meeting Minutes

4. Draft MAG 2012 Five Percent Plan for PM-10

The new MAG 2012 Five Percent Plan for PM-10 contains 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. While the 2007 Five Percent Plan was withdrawn, a wide range of control measures in that plan continue to be implemented to reduce PM-10 and are being resubmitted. In accordance with Section 189 (d) of the Clean Air Act, the plan demonstrates that the measures will reduce PM-10 emissions by at least five percent per year and demonstrates attainment of the PM-10 standard as expeditiously as practicable, which is 2012.

2. For information.

3. Review and approve the February 23, 2012 meeting minutes.

4. For information, discussion and recommendation to adopt the Draft MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area.

As required by the Clean Air Act, the 2012 Five Percent Plan also includes contingency measures, which achieve emissions reductions beyond those measures relied upon for the five percent reductions and attainment of the standard. The contingency measures were implemented early and include PM-10 certified street sweeping on freeways and arterials, as well as the projects completed in 2008-2011 that paved and stabilized unpaved roads, alleys and shoulders; reduced speed limits; and overlaid highways with rubberized asphalt.

On April 12, 2012, a public hearing was jointly conducted on the Draft MAG 2012 Five Percent Plan for PM-10 by the Arizona Department of Environmental Quality and Maricopa Association of Governments. The comments received on the plan will be discussed with the Committee. Following the consideration of public comments, the MAG Air Quality Technical Advisory Committee may make a recommendation to the MAG Management Committee. The MAG Regional Council may take action on May 23, 2012. Please refer to the enclosed material.

5. Update on PM-10 Exceedances and Exceptional Events

The region needs three years of clean data as measured by the monitors for EPA to determine that the standard has been met. It is critical for the MAG member agencies, business and industry, and the public to maintain aggressive efforts to prevent exceedances at the monitors and throughout the region. In addition, the Arizona Department of Environmental Quality is in the process of procuring consultant assistance to prepare the documentation for the remaining packages of exceptional events in 2011.

On March 2, 2012, EPA sent a letter to MAG indicating that EPA would consider the MAG comments on the draft exceptional events guidance and the conceptual approach for streamlining the process by enabling states and

5. For information and discussion.

tribes to make the exceptional events determinations, in consultation with EPA. Please refer to the enclosed material.

6. 2010 Implementation Status of Committed Measures in the MAG 2007 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area

In accordance with the Clean Air Act, the MAG 2007 Five Percent Plan for PM-10 was submitted to the Environmental Protection Agency (EPA) in December 2007. The plan included a broad range of commitments to implement measures from the State, Maricopa County, and twenty-three local governments in the PM-10 nonattainment area. In January 2011, the plan was voluntarily withdrawn to address technical approvability issues identified by EPA and include new information. While the plan was withdrawn, the measures in the plan continue to be implemented to reduce PM-10.

On May 23, 2007, the MAG Regional Council approved that each year, MAG would issue a report on the status of the implementation of the committed measures for this region by the cities, towns, Maricopa County and the State. The report would then be made available to the Governor's Office, Arizona Legislature, Arizona Department of Environmental Quality and the Environmental Protection Agency.

A report has been prepared that provides the implementation status of the committed measures for 2010. The report also incorporates the results from 2008 and 2009 in order to more accurately reflect the level of implementation of the committed measures in the region. In general, the combined implementation results for 2008, 2009, and 2010 meet or exceed the commitments made to implement a majority of the measures in the MAG 2007 Five Percent Plan for PM-10. Please refer to the enclosed information.

6. For information, discussion, and recommendation to forward the 2010 Implementation Status of Committed Measures in the MAG 2007 Five Percent Plan for PM-10 in the Maricopa County Nonattainment Area to the Governor's Office, Arizona Legislature, Arizona Department of Environmental Quality and Environmental Protection Agency.

7. EPA Proposed Approval of the MAG 2007 Eight-Hour Ozone Plan

On April 12, 2012, EPA published a proposed rule to approve the MAG 2007 Eight-Hour Ozone Plan. The plan demonstrates attainment of the 1997 eight-hour ozone standard of 0.08 parts per million by June 15, 2009. Please refer to the enclosed material.

8. CMAQ Annual Report

In accordance with federal guidance, the 2011 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds Annual Report describes how funds have been spent and the expected air quality benefits. The report was prepared by MAG in cooperation with the Arizona Department of Transportation. The report is in the electronic format required by the Federal Highway Administration. Please refer to the enclosed material.

9. Update on PM-10 Certified Street Sweeper Projects for FY 2012 CMAQ Funding

On October 27, 2011, the MAG Air Quality Technical Advisory Committee recommended a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2012 CMAQ funding. The recommendation was endorsed by the MAG Management Committee on November 9, 2011. On December 7, 2011, the MAG Regional Council approved the prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2012 CMAQ funding. During the TIP Closeout, federal participation was increased to 100 percent for eligible total costs and two remaining street sweeper projects were funded. An update will be provided.

10. Call for Future Agenda Items

The next meeting of the Committee has been tentatively scheduled for **Thursday, May 24, 2012** at 1:30 p.m. The Chairman will invite the Committee members to suggest future agenda items.

7. For information and discussion.

8. For information and discussion.

9. For information and discussion.

10. For information and discussion.

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

Thursday, February 23, 2012  
MAG Office  
Phoenix, Arizona

MEMBERS ATTENDING

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|--|--|
| Oddvar Tveit, Tempe, Chairman  | Steve Trussell, Arizona Rock Products Association              |
| # Elizabeth Biggins-Ramer, Buckeye, Vice Chair                       | Amy Bratt, Greater Phoenix Chamber of Commerce                 |
| Kristen Sexton, Avondale   | Amanda McGennis, Associated General Contractors                |
| # Jim Weiss, Chandler  | * Spencer Kamps, Homebuilders Association of Central Arizona   |
| # Jamie McCullough, El Mirage  | # Mannie Carpenter, Valley Forward                             |
| Kurt Sharp, Gilbert  | * Kai Umeda, University of Arizona Cooperative Extension       |
| Doug Kukino, Glendale  | Beverly Chenausky, Arizona Department of Transportation        |
| * Cato Esquivel, Goodyear  | Diane Arnst, Arizona Department of Environmental Quality       |
| * Scott Bouchie, Mesa  | * Environmental Protection Agency                              |
| * William Mattingly, Peoria  | Jo Crumbaker, Maricopa County Air Quality Department           |
| Phil McNeely, Phoenix  | * Duane Yantorno, Arizona Department of Weights and Measures   |
| Tim Conner, Scottsdale   | * Ed Stillings, Federal Highway Administration                 |
| # Antonio DeLaCruz, Surprise   | Mary Springer for Judi Nelson, Arizona State University        |
| # Mark Hannah, Youngtown   | # Christopher Horan, Salt River Pima-Maricopa Indian Community |
| Ramona Simpson, Queen Creek  |  |
| * American Lung Association of Arizona                               |  |
| Kristin Watt for Grant Smedley, Salt River Project                   |  |
| * Brian O'Donnell, Southwest Gas Corporation                         |  |
| * Mark Hajduk, Arizona Public Service Company                        |  |
| # Susan Stephens for Gina Grey, Western States Petroleum Association |  |
| # Dawn M. Coomer, Valley Metro/RPTA                                  |  |
| * Dave Berry, Arizona Motor Transport Association                    |  |
| Jeannette Fish, Maricopa County Farm Bureau                          |  |

- \*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        | Mitch Wagner, Maricopa County Department of Transportation |
| Dean Giles, Maricopa Association of Governments         | Clifford Anderson, Arizona State University                |
| Taejoo Shin, Maricopa Association of Governments        | Scott DiBiase, Pinal County Air Quality                    |
| Matt Poppen, Maricopa Association of Governments        | Matt Tsark, Strand Associates, Inc.                        |
| Julie Hoffman, Maricopa Association of Governments      | Amanda Nash, Maricopa County                               |
| Kara Johnson, Maricopa Association of Governments       | Joonwon Joo, Arizona Department of Transportation          |
| Adam Xia, Maricopa Association of Governments           | Heather Hodgman, City of Apache Junction                   |
| Feng Liu, Maricopa Association of Governments           | Sam Tsrown, City of Scottsdale                             |
| Cathy Arthur, Maricopa Association of Governments       | Wendy Crites, Salt River Project                           |
| Randy Sedlacek, Maricopa Association of Governments     | Rusty Van Leuven, Arizona Department of Agriculture        |
| Johanna Kuspert, Maricopa County Air Quality Department | Mick Hont, Arizona Department of Transportation            |

1. Call to Order

A meeting of the Maricopa Association of Governments (MAG) Air Quality Technical Advisory Committee (AQTAC) was conducted on February 23, 2012. Oddvar Tveit, City of Tempe, Chair, called the meeting to order at approximately 1:35 p.m. Elizabeth Biggins-Ramer, Buckeye; Dawn Coomer, Valley Metro; Jim Weiss, City of Chandler; Jamie McCullough, City of El Mirage; Christopher Horan, Salt River Pima-Maricopa Indian Community; Mannie Carpenter, Valley Forward; Susan Stephens, Western States Petroleum Association; Mark Hannah, Town of Youngtown; and Antonio DeLaCruz, City of Surprise, attended the meeting via telephone conference call.

2. Call to the Audience

Mr. Tveit stated that according to the MAG public comment process, members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Public comment is provided at the beginning of the meeting for nonagenda items and nonaction agenda items. Mr. Tveit noted that one public comment card was received.

Mr. Tveit called forward Clifford Anderson for public comment. Mr. Anderson spoke on the link between health and air quality. He stated that people who burn wood do not understand the unintended health consequences of their actions. Mr. Anderson noted that children with asthma are having to go to the hospital due to fireplace smoke. He commented that he is not seeking regulation, but education. He asked if Environmental Protection Agency (EPA) regulation is the only motivation for improving air quality. Mr. Anderson stated that the public needs to be informed on the adverse health effects of burning wood and advised against this bad practice. He noted that woodburning stoves and fireplaces emit significant quantities of health damaging pollutants, including carcinogenic compounds. Mr. Anderson discussed that wood smoke also contains particulate matter which has an impact on the respiratory system. He stated that the Arizona Department of Health Services reported January and February as the two worst months for emergency room visits for asthma in 2008 and 2009. Mr. Anderson discussed a study correlating asthma and PM-10. He noted that despite the high pollution advisory days and no burn days he has witnessed several public violations. Mr. Anderson commented that the word is not getting out. He stated that the high local concentration is the insidious aspect of wood smoke that is not captured by the monitors in Maricopa County. Mr. Anderson indicated that debilitating fumes fill the air he needs to breathe to commute two miles to work. He discussed an improved public policy and public awareness campaign to inform the public on the dangers of wood burning and the importance of air quality with relation to health.

Mr. Tveit thanked Mr. Anderson for his comments. He stated that this indeed is an important issue and he appreciates ideas from the public on ways to get the message out.

3. Approval of the November 29, 2011 Meeting Minutes

The Committee reviewed the minutes from the November 29, 2011 meeting. Doug Kukino, City of Glendale, moved and Phil McNeely, City of Phoenix, seconded, and the motion to approve the November 29, 2011 meeting minutes carried unanimously.

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

Lindy Bauer, Maricopa Association of Governments, provided an update on the MAG Five Percent Plan for PM-10. She stated that the Arizona Department of Environmental Quality (ADEQ) has submitted their commitment regarding the voluntary and emerging control measure, the Dust Action General Permit. Ms. Bauer stated that based upon an evaluation, if there is a need to address a shortfall ADEQ would commit to work together to develop a plan revision. She noted that this commitment is a requirement of EPA if a voluntary and emerging measure is going to be used. Ms. Bauer thanked ADEQ for submitting the commitment.

Ms. Bauer stated that according to the Arizona Department of Environmental Quality, ADEQ, EPA, and the Governor's Agricultural Best Management Practices Committee have some issues that they are currently working through and discussions are taking place. Once the discussions are completed and these items are addressed, the Draft MAG Five Percent Plan for PM-10 will be completed.

Ms. Bauer indicated that not only is the draft plan needed, but the region also needs three years of clean data as measured by the monitors for EPA to determine that the PM-10 standard has been met. It is important for MAG member agencies, the State, business and industry, as well as the citizens to keep the dust down throughout the entire region and at the monitors. Ms. Bauer stated that the region cannot afford any accidental anthropogenic exceedances, such as all-terrain vehicles on vacant lots.

Ms. Bauer provided an update on exceptional events. She stated that in 2012 the State has indicated that the region has had two exceptional events. The first exceptional event was on January 21<sup>st</sup> at the West 43<sup>rd</sup> Avenue Monitor and due to a frontal system which documented winds at 32.5 miles per hour. The second exceedance was due to residual dust on January 22<sup>nd</sup> at the Higley Monitor. Ms. Bauer indicated that ADEQ believes these exceedances are exceptional events.

Ms. Bauer stated that ADEQ is continuing their preparation of the exceptional event documentation as required by the EPA Exceptional Events Rule. She noted that she would pass around the July 2-8, 2011 exceptional events documentation to the Committee, which is over 200 pages, to show the work that goes into these documents. ADEQ has indicated that they have twelve more packages to be prepared for 2011. Ms. Bauer mentioned that ADEQ, Maricopa County, MAG, and the MAG consultants all worked on the documentation together. Ms. Bauer indicated that the exceptional events issues are still not resolved. She noted that hopefully EPA will be releasing some fixes to the implementation guidance for the Exceptional Events Rule.

Ms. Bauer discussed that in the Legislature, Representative Reeve introduced House Bill 2798, which has been passed by the House Environment Committee. She added that the bill was included in the Committee agenda packet. Ms. Bauer stated that House Bill 2798 is designed to have the municipalities and counties in Area A, ADEQ, the Arizona Department of Transportation (ADOT), and other agencies responsible for enforcing restrictions on off-highway vehicles submit annual reports regarding particulate measures to ADEQ. Representative Reeve has acknowledged that the measures are being implemented by the cities and towns. Ms. Bauer noted that by March 30<sup>th</sup> of every year the documentation of measure implementation will be required as outlined in the bill.

Antonio DeLaCruz, City of Surprise, inquired about the three years of clean data, in particular, if 2011 was the third year of clean data needed. Ms. Bauer replied that the requirement is at least three years of clean data at the monitors for EPA to determine that the standard has been attained. For example,

she stated that the plan is being submitted in 2012, so at a minimum 2010, 2011, and 2012 need to be clean data years. Ms. Bauer added that once the three years of clean data is attained, the region needs to stay clean at the monitors. If the region cannot stay clean after attainment has been reached, EPA will designate the region back to nonattainment.

5. Update on the Activities of the ADOT Dust Task Force

Mick Hont, Arizona Department of Transportation, presented an update on the activities of the ADOT Dust Task Force Committee. He mentioned that in October 2011 there was a 30 vehicle pile-up on Interstate 10 that stemmed from blowing dust. Mr. Hont explained that this accident spurred the State Engineer's Office to contact ADOT with regard to the formation of a committee which would re-engage the issue. The purpose of the ADOT Dust Task Force Committee is to evaluate the effect that dust storms have on ADOT highways and consider mitigation measures to enhance the safety of the traveling public. The committee membership displays a variation of disciplines, including: central maintenance; communication and community partnerships; emergency management; research center; risk management; traffic safety; transportation technology group; and various districts.

Mr. Hont indicated that the ADOT Dust Task Force Committee focuses on five deliverables. The first deliverable is determining the number of crashes that occurred on State, County and Indian roads from 2006 to 2010 that can be attributed to severe crosswinds and blowing soil. Mr. Hont displayed the number of crashes as a result of weather from 2006 to 2010. He stated that out of almost 620,000 recorded crashes, less than one percent of the crashes can be attributed to severe crosswinds or blowing soil.

Mr. Hont discussed that the second deliverable is to identify sections of interstate highways that have a significant number of crashes related to severe crosswinds and blowing soil. From the data that was provided by ADOT's Traffic Safety section, Interstate 10 and Interstate 40 had the highest number of crashes. Mr. Hont replied that the committee then focused on Interstate 10. He presented a graph that displayed severe crosswind and blowing sand, soil, dirt weather related crashes along eastbound Interstate 10 from the California/Arizona border to the New Mexico/Arizona border. Mr. Hont identified that a majority of the crashes happened between Tangerine Road and Wild Horse Pass Boulevard.

Mr. Hont stated that the next focus of the committee was to explore mitigation measures. The third deliverable of the committee was to determine the effectiveness of the existing dust monitoring system in the Safford District, and to determine the cost to install similar systems on Interstate 10 between Phoenix and Tucson at the areas specified in the previous graph.

Mr. Hont discussed the dust monitoring system on Interstate 10 in the Safford District. He stated that ADOT secured grant monies a few years ago for a dust monitoring system to be installed on Interstate 10 in the Safford District between mile posts 361 and 387. The system was deployed in May 2011 and the coverage area is approximately 26 miles. Mr. Hont noted that the monitors have sensors that detect high winds and low visibility, as well as cameras that provide snapshots of existing weather conditions. He indicated that there is a threshold or trigger point for the sensors and camera which when exceeded triggers different warning devices. The public warning devices include: a sign with flashing beacons communicating to the public to reduce speed and a warning message played on the Highway Advisory Radio.

Diane Arnst, Arizona Department of Environmental Quality, inquired if the warning devices are triggered automatically. Mr. Hont responded that the devices are triggered remotely, not manually.

Mr. Hont commented that while the system was deployed in May 2011, there is still some fine tuning required. He stated that the system needed to be evaluated for effectiveness before any other projects in this technology are pursued. Mr. Hont mentioned that the present-day cost for a similar system to be designed and constructed on Interstate 10 from mile marker 200 to 230 is approximately \$700,000. This cost would cover basic design and construction. He commented that if a similar system was to be put into place covering the entire problem area from mile marker 160-240, the present-day investment would be approximately \$2.2 million.

Mr. Hont discussed the fourth deliverable which is to determine where additional investment of resources can effectively generate value. He stated that ADOT is considering installing cameras at specific locations on Interstate 10 between Tucson and Phoenix in lieu of a fully developed monitoring system like in the Safford District. Snapshots or live video of existing weather conditions would be transmitted to the Traffic Operations Center (TOC) in Phoenix. Mr. Hont indicated that this system could essentially operate the same as the one in the Safford District in which the TOC would send out a page alerting the appropriate districts of the weather conditions and activate overhead signs.

Mr. Hont stated that the last deliverable is to work in partnership with other stakeholders. For instance, in March 2012, ADOT and the National Weather Service will be hosting a meeting that will include the County and State Emergency Management and air quality contacts, the Department of Public Safety, ADEQ, public health, academia, and others to discuss what each agency is working on and what challenges are present.

Ms. Arnst asked how long it took from the point of decision to install the Safford system to the system becoming operational. Mr. Hont replied that he was not sure the exact timeline of the Safford system. However, he stated that given the clearances involved, a similar project today would take about one to two years assuming the underground work was in place. Mr. Hont indicated that these projects are federally funded.

Kurt Sharp, Town of Gilbert, inquired why the Safford District was chosen. Beverly Chenausky, Arizona Department of Transportation, responded that the Safford District was chosen since the grant for the project was for a rural weather information system, it had to be located in a rural area. She stated that the grant monies did not originally include the dust forecast, but that ADOT chose to add the dust forecast to the Safford system.

Jeannette Fish, Maricopa County Farm Bureau, stated that the City of Safford is not located on Interstate 10. She asked where the Safford District System is located on Interstate 10. Ms. Chenausky replied that the Safford District is the boundary of the SouthEastern Arizona Governments Organization. She stated that the system is in Cochise County.

Mr. Tveit inquired if a final evaluation of the Safford District System effectiveness will be available. Mr. Hont replied that a matrix was developed for the system. He commented that there are a few different options for determining the effectiveness of the system. For instance, the number of accidents and the installation of speed recording devices can both potentially provide data on the change in human behavior during dust storms. Mr. Hont replied that one year's worth of data and reporting will

be necessary for an evaluation, as well as some dust events. Mr. Tveit thanked Mr. Hont for his presentation and Ms. Chenausky for arranging the presentation.

6. Air Quality Status Report

Julie Hoffman, Maricopa Association of Governments, presented an Air Quality Status Report to the Committee. Ms. Hoffman indicated that *The Arizona Republic* recently published a seven day series of articles on air quality. She stated that MAG has had concerns regarding this series and that she will discuss the current status of air quality in the region.

Ms. Hoffman presented the number of eight-hour carbon monoxide exceedance days in the Maricopa County nonattainment area since 1983. She stated that there have been no violations of the eight-hour carbon monoxide standard since 1996. Therefore, the carbon monoxide standard has been attained and the nonattainment area is now a maintenance area. Ms. Hoffman noted that the standard for carbon monoxide is 9 parts per million (ppm) or 9.4 ppm due to rounding.

Ms. Hoffman presented the trend of the second highest eight-hour carbon monoxide concentrations in the Maricopa County nonattainment area. Ms. Hoffman indicated that the second highest concentration is graphed since the standard is set at 9 ppm not to be exceeded more than once per year at the same monitor. She noted the significant downward trend in carbon monoxide concentrations. Ms. Hoffman indicated that in each of the last four years, the second highest eight-hour carbon monoxide concentration has been approximately 3 ppm, far below the standard.

Ms. Hoffman presented the number of monitors violating the eight-hour ozone standards in the Maricopa County nonattainment area. She noted that the 1997 eight-hour ozone standard was .08 ppm and the revised 2008 eight-hour ozone standard is .075 ppm. To attain the eight-hour ozone standard the three-year average of the fourth highest daily maximum eight-hour concentration at each monitor per year must not exceed the standard. Ms. Hoffman stated that the region has not violated the .08 ppm standard since 2004. For the .075 ppm standard, there were 11 violating monitors in 2008 and only one in 2009, 2010, and 2011.

Ms. Hoffman presented the highest three-year average of the fourth highest eight-hour ozone concentration in the Maricopa County nonattainment area. She noted that the region is close to meeting the revised standard of .075 ppm with the three-year average of the fourth high in 2010 and 2011 being .077 ppm, only .002 ppm above the standard. Ms. Hoffman noted that of the 11 violating monitors in 2008, the highest three-year average of the fourth high was .081 ppm, which means the other 10 violating monitors were below .081 ppm. Ms. Hoffman commented that the region has also met the one-hour ozone standard of .12 ppm, which has not been violated since 1996.

Ms. Hoffman presented the number of 24-hour PM-10 exceedance days in Maricopa County and the PM-10 nonattainment area by year. She stated that the PM-10 standard is 150 micrograms per cubic meter which is not to be exceeded more than three times in a three year period per monitor. Ms. Hoffman commented that ADEQ started flagging exceptional events in 2004, which are noted in the chart. She stated that in 2011, 21 of the 22 exceedance days have been flagged as exceptional events. Ms. Hoffman added that in 2012 there have been two exceptional events.

Ms. Hoffman noted that due to *The Arizona Republic* articles, MAG staff wanted to present to the Committee the air quality facts for the region. Steve Trussell, Arizona Rock Products Association,

stated that the air quality status report was very promising and good news, not characterized as such in the newspaper articles. He inquired if any agency is going to submit an op-ed (opposite the editorial page) in response to *The Arizona Republic* air quality series. Ms. Bauer responded that the MAG Regional Council Chairman submitted a "My Turn" to *The Arizona Republic* on February 7, 2012, right after the series was completed. She added that MAG staff has contacted *The Arizona Republic* and resubmitted the "My Turn". *The Arizona Republic* has indicated that they would contact MAG with a publication date.

7. EPA Proposed Ozone Nonattainment Area Boundary and Proposed Rule for Implementation of the 2008 Ozone Standards

Ms. Bauer provided an update on the proposed ozone nonattainment area boundary and proposed rule for implementation of the 2008 ozone standards. Ms. Bauer stated that the Environmental Protection Agency sent a letter to the Governor dated December 9, 2011 that proposed the nonattainment area boundary for the 2008 eight-hour ozone standard based upon the recommendation from ADEQ. The proposed boundary would expand the current nonattainment area to the west and southwest to include power plants. Ms. Bauer indicated that the boundary is expanded to the west for the Harquahala Generating Project and to the southwest for the Gila River Power Station. She noted that this boundary is smaller than what was previously proposed. She indicated that the boundary does not go deep into Pinal County since the Queen Valley monitor has stopped violating the ozone standard and power plants planned for in the area were not built. Ms. Bauer stated that comments and additional information may still be provided to EPA until February 29, 2012. She mentioned that the ozone nonattainment area boundary map has been provided to the MAG Management Committee and the MAG Regional Council. Ms. Bauer added that no comments were received.

Ms. Bauer stated that on February 7, 2012, EPA proposed a rule for the implementation of the 2008 ozone standards. She discussed that this proposal is the first of two rules that will guide implementation of the 2008 ozone standards. Ms. Bauer indicated that it appears the region will be classified as a marginal area for the eight-hour ozone standard. Marginal areas are assumed to come into attainment within three years due to the federal controls in place for on road vehicles, off road vehicles, and other items. Ms. Bauer noted that marginal classification has a design value from .076 ppm to .086 ppm. She stated that the violating North Phoenix monitor had a value of .077 ppm, which is just over the standard. EPA has also proposed two options for attainment dates, August 15, 2015 or December 15, 2015. Ms. Bauer indicated that the next series of guidance will give the region a better indication of what would be necessary for a plan. She stated that the prior eight-hour ozone standard will be revoked for conformity purposes only.

8. MAG Committee Operating Policies and Procedures Change

Ms. Bauer indicated that on January 25, 2012, the MAG Regional Council approved updating the MAG Committee Operating Policies and Procedures, Terms of Officers, to two-year terms for the technical and other policy committees.

9. Legislative Update

Ms. Bauer stated that she provided the overview of House Bill 2798 under agenda item number four. She indicated that House Bill 2798 is directly related to the MAG Five Percent Plan for PM-10. She asked if there were any further questions.

Ramona Simpson, Town of Queen Creek, inquired about the process of turning in the proper forms for House Bill 2798. Ms. Bauer replied that the forms will be submitted to the Arizona Department of Environmental Quality. The ADEQ Director will create the form and based upon what she had heard, it is anticipated that the form will be similar to previous forms.

10. Proposed Funding for an Air Quality Project for the MAG FY 2013 Work Program

Ms. Bauer indicated that additional funding is being proposed for the Air Quality Technical Assistance On-Call Project for the MAG FY 2013 Unified Planning Work Program. She added that MAG is looking to be prepared for any consultant assistance that may be needed. She noted that the proposed amount of \$280,000 is subject to change and may be lowered in the future.

11. Call for Future Agenda Items

Mr. Tveit requested suggestions for future agenda items. He noted that he is interested in hearing an update on the exceptional events documentation. The next Committee meeting has been tentatively scheduled for April 26, 2012 at 1:30 p.m. Amanda McGennis, Associated General Contractors, inquired if the scheduled March meeting is cancelled. Ms. Bauer replied that the March meeting may be cancelled. She noted that MAG is working closely with ADEQ on the outstanding issues with the Draft MAG Five Percent Plan for PM-10. Ms. Bauer stated that the Committee will probably be meeting in April rather than March. With no further comments, the meeting was adjourned at 2:32 p.m.

**DRAFT**

**MAG 2012 FIVE PERCENT PLAN FOR PM-10 FOR THE  
MARICOPA COUNTY NONATTAINMENT AREA**

**EXECUTIVE SUMMARY**



## **MAG 2012 FIVE PERCENT PLAN FOR PM-10 EXECUTIVE SUMMARY**

Within the Maricopa County nonattainment area, the National Ambient Air Quality Standard has not yet been attained for PM-10 particulate pollution. The area is classified as a Serious Area under the Clean Air Act. The Maricopa Association of Governments (MAG) was designated by the Governor of Arizona in 1978 and recertified by the Arizona Legislature in 1992 to serve as the Regional Air Quality Planning Agency to develop plans to address air pollution problems. The plans are prepared through a coordinated effort with the Arizona Department of Environmental Quality (ADEQ), Arizona Department of Transportation, and Maricopa County Air Quality Department (MCAQD).

To meet the requirements of Section 189 (d) of the Clean Air Act, the MAG 2007 Five Percent Plan for PM-10 was submitted to the Environmental Protection Agency (EPA) by the federal deadline of December 31, 2007. Collectively, the Five Percent Plan included fifty-three control measures from the State, Maricopa County, and local governments. The plan demonstrated that the measures would reduce PM-10 emissions by at least five percent per year and demonstrated attainment of the PM-10 standard in 2010. The region needed three years of clean data at the monitors in 2008, 2009 and 2010 in order for the region to be in attainment of the PM-10 standard in 2010. There have been no violations of the standard during stagnant conditions since the plan was submitted in 2007.

On September 9, 2010, EPA had published a notice of proposed partial approval and disapproval of the plan in the Federal Register. There were two major reasons for the proposed disapproval: the EPA nonconcurrence with four high wind exceptional events at the West 43<sup>rd</sup> Avenue monitor in 2008 resulted in a violation, which negated the attainment demonstration, and that the 2005 baseline emissions inventory was inaccurate since it overestimated construction and other emissions.

On January 25, 2011, the Arizona Department of Environmental Quality voluntarily withdrew the MAG 2007 Five Percent Plan for PM-10 to address technical approvability issues and include new information, such as the new EPA equation for paved road dust emissions. While the plan was withdrawn, the measures continue to be implemented to reduce PM-10.

Consequently, the MAG 2012 Five Percent Plan for PM-10 has been prepared to meet the requirements in Section 189 (d) of the Clean Air Act and improve air quality in the Maricopa County nonattainment area. The plan is required to reduce PM-10 emissions by at least five percent per year until the standard is attained as measured by the monitors. The Clean Air Act specifies that the plan must be based upon the most recent emissions inventory for the area and also include a modeling demonstration of attainment. The 2012 Five Percent Plan is designed to be a replacement for the 2007 plan that was withdrawn.

The formation of PM-10 particulate pollution is dependent upon several factors. Among these factors are stagnant air masses, severe temperature inversions in the winter, high winds from thunderstorms and frontal systems, and fine, silty soils characteristic of desert locations. In the nonattainment area, high PM-10 concentrations generally occur in September through March, on days with stagnant or near-stagnant conditions. High PM-10 concentrations can also occur during thunderstorm outflows and frontal systems which create high winds that entrain soil particles from bare surfaces.

The trend in PM-10 levels for the Maricopa County nonattainment area is presented in Figure ES-1. The 24-hour PM-10 standard is 150 micrograms per cubic meter. In 2008, there were 11 exceedance days of the 24-hour standard. Most of these exceedances were exceptional events. However, EPA did not concur with four high wind exceptional event days at the West 43<sup>rd</sup> Avenue monitor in 2008, resulting in a violation of the PM-10 standard. All of the seven exceedance days in 2009 have been flagged as exceptional events and EPA concurrence is pending. In 2010, only one exceedance day of the PM-10 standard occurred, which did not constitute a violation of the standard. Figure ES-2 indicates the monitors where exceedances have occurred.

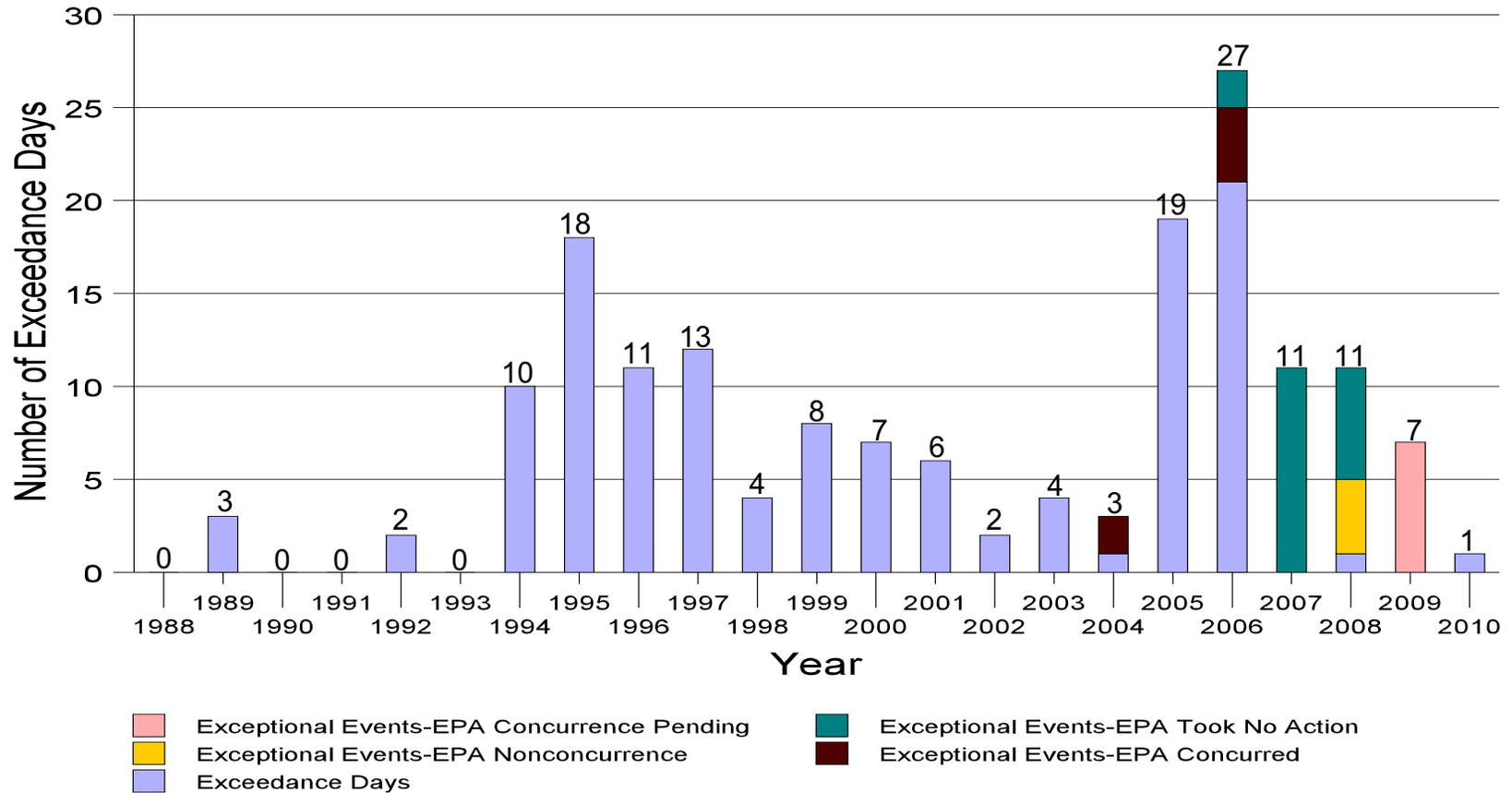
It is important to note that beginning in 2004, the Arizona Department of Environmental Quality began flagging exceptional events. These are uncontrollable natural events (e.g., high winds, wildfires) or human-caused events that are not expected to recur at a given location (e.g., fireworks). The data and a demonstration of the exceptional event are submitted to EPA for concurrence.

Based upon the Maricopa County Air Quality Department 2008 Periodic Emissions Inventory (PEI) for PM-10 for the Maricopa County Nonattainment Area, the primary sources of PM-10 are: Unpaved Road Fugitive Dust - 24 percent; Construction Activities (residential, commercial, road, and other earthmoving) - 17 percent; Paved Road Fugitive Dust - 14 percent; Windblown Dust - 10 percent; and Onroad Mobile Vehicle Exhaust, Tire Wear and Brake Wear - 7 percent. The remaining categories in the inventory individually contribute 6 percent or less to the total annual emissions. The sources are depicted in Figure ES-3.

The 2007 and 2009-2012 base case emissions were derived from the 2008 PEI emissions, using annual population and employment growth factors published in August 2011 by Marshall Vest of the Economic and Business Research Center at the University of Arizona. These projections are based on the 2010 U.S. Census and the latest economic forecasts for the Phoenix-Mesa metropolitan area. Since the economic outlook for Arizona remains extremely unstable, the actual population and employment levels in 2011 and 2012 may differ somewhat from the projections. However, the University of Arizona growth factors represent the most reliable data currently available.

The annual five percent reduction target was calculated by multiplying the total 2007 PM-10 emissions in Table ES-1 (59,218 tons) by five percent, which results in 2,961 tons. To meet the 189(d) requirement, the 2008 emissions must be at least 2,961 tons less than

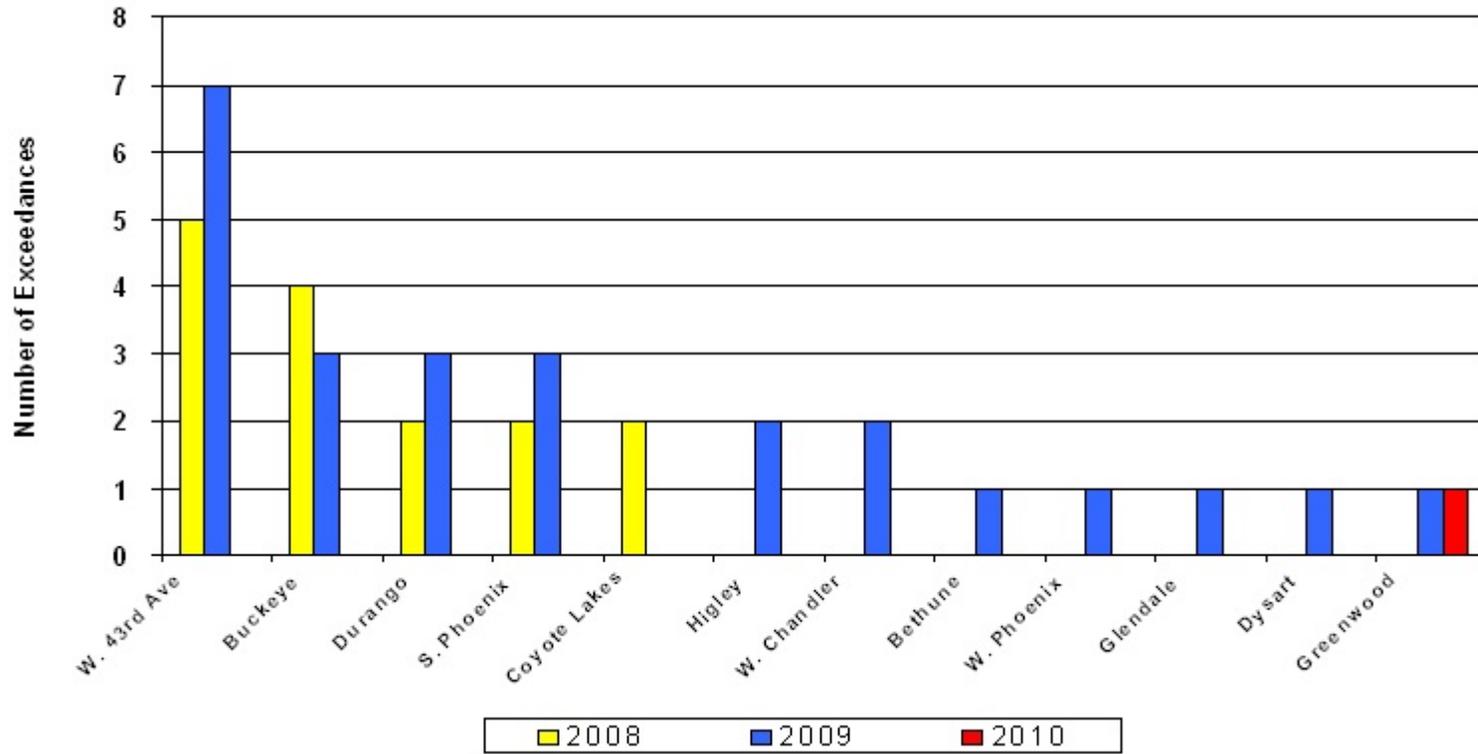
**Figure ES-1  
Number of 24-Hour PM-10 Exceedance Days**



Notes: -The Arizona Department of Environmental Quality began flagging exceptional events in 2004.  
 -The chart includes exceedance days at the Buckeye monitor, which is located outside the PM-10 nonattainment area.  
 -On July 19, 2007, the exceedance at the Buckeye monitor was not associated with the exceptional event that also occurred on that day.

Sources: 1988 - 1997 - Revised MAG 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area, February 2000.  
 1998 - 2010 - EPA Air Quality System.

**Figure ES-2  
Exceedances of the 24-Hour PM-10 Standard at Monitors in Maricopa County**

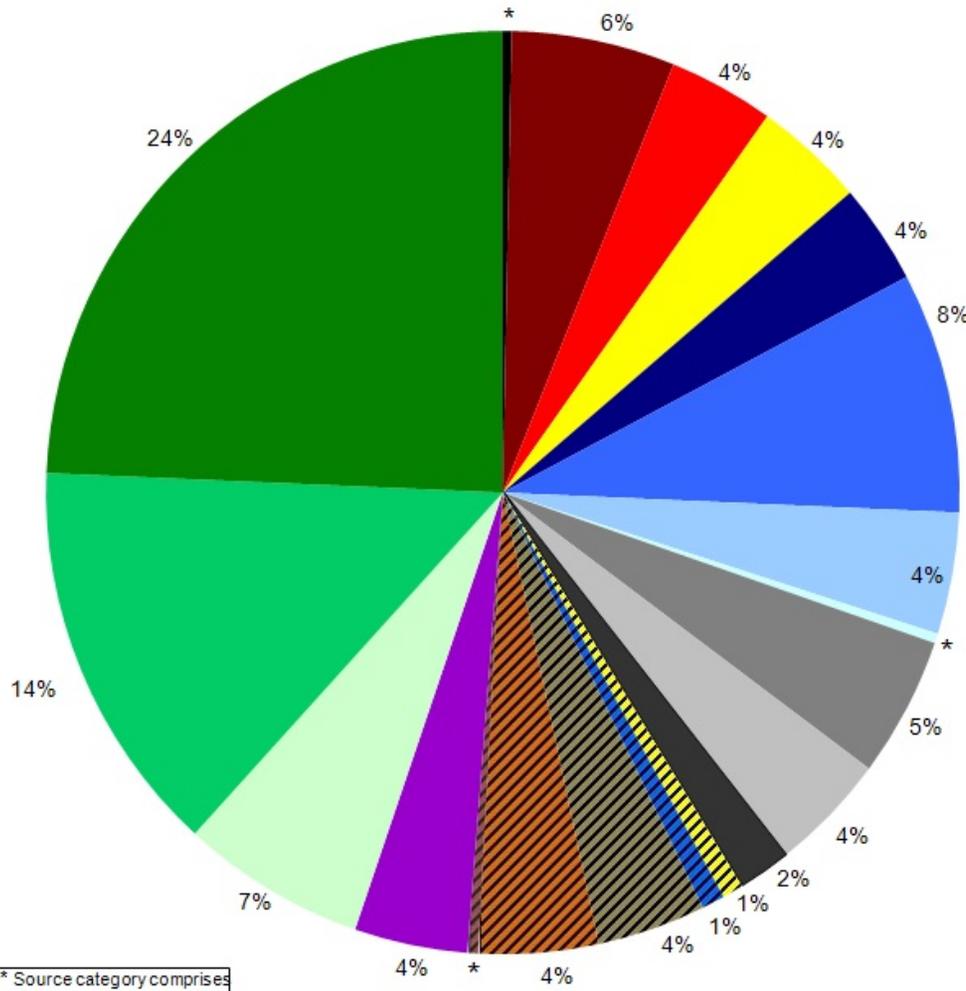


Notes:

1. Exceedances are based on data from the EPA Air Quality System (AQS).
2. All exceedances in 2008 except for one at the Durango Complex monitor have been flagged as exceptional events. EPA did not concur with four exceptional events at the West 43<sup>rd</sup> Avenue monitor and has not taken action on the remaining events.
3. All exceedances in 2009 have been flagged as exceptional events. EPA concurrence is pending.
4. The one exceedance in 2010 was not flagged as an exceptional event.
5. The chart includes exceedances from the Buckeye monitor, which is outside the PM-10 nonattainment area.

Figure ES-3

2008 PM-10 Emissions Inventory  
 PM-10 Nonattainment Area Total = 48,148 tons/yr



Source Categories	%
Major stationary point sources	<math><0.5\%</math>
All other industrial processes	(6%)
Fuel combustion and fires	(4%)
Agricultural tilling/harvesting	(4%)
Construction, residential	(4%)
Construction, commercial	(8%)
Construction, road	(4%)
Other earthmvg: trenching, weed control	<math><0.5\%</math>
Travel on unpaved parking lots	(5%)
Offroad recreational vehicles fugitive dust	(4%)
Leaf blowers fugitive dust	(2%)
Windblown: agricultural land	(1%)
Windblown: developing land	(1%)
Windblown: vacant land	(4%)
Windblown: open areas	(4%)
Windblown: S&G, landfills, test tracks	<math><0.5\%</math>
Nonroad mobile sources	(4%)
Vehicle exhaust, tire wear, brake wear	(7%)
Paved road fugitive dust, including trackout	(14%)
Unpaved road fugitive dust	(24%)

\* Source category comprises less than 0.5% of total.

**Table ES-1  
2007-2012 Base Case PM-10 Emissions in the PM-10 Nonattainment Area**

Source Category	2007	2008	2009	2010	2011	2012
	(tons/year)					
<b>POINT</b>	159	150	133	127	128	135
<b>AREA</b>						
Fuel combustion	1,276	1,301	1,307	1,311	1,316	1,328
Commercial cooking	974	993	998	1,001	1,005	1,014
Construction (includes windblown dust)	16,672	13,811	9,692	8,359	8,102	8,223
Tilling, harvesting and cotton ginning	936	893	893	893	893	893
Travel on unpaved farm roads	769	731	731	731	731	731
Livestock	261	261	261	261	261	261
Travel on unpaved parking lots	2,376	2,422	2,434	2,441	2,451	2,473
Offroad recreational vehicles	2,139	2,180	2,191	2,198	2,206	2,226
Leaf blowers	878	895	899	902	906	914
Windblown agriculture	448	448	448	448	448	448
Other windblown sources	5,430	5,430	5,430	5,430	5,430	5,430
Fires	497	497	497	497	497	497
Mining/quarrying (includes windblown dust)	752	721	661	641	643	667
Travel on industrial paved/unpaved roads	771	728	645	618	621	654
Other industrial sources	1,033	976	865	828	832	877
<b>NONROAD</b>						
Aircraft	194	184	152	142	143	146
Airport ground support equipment	29	27	23	21	20	20
Locomotives	34	34	34	34	34	34
Other nonroad equipment	1,710	1,683	1,661	1,641	1,595	1,513
<b>ONROAD</b>						
Exhaust	2,943	2,836	2,647	2,371	1,843	1,407
Tire wear	246	256	257	257	258	261
Brake wear	728	758	767	771	773	787
Paved roads	7,749	8,155	8,214	8,289	8,323	8,422
Unpaved roads and alleys	10,218	10,312	10,284	10,284	10,284	10,312
<b>Totals</b>	<b>59,218</b>	<b>56,681</b>	<b>52,123</b>	<b>50,497</b>	<b>49,743</b>	<b>49,673</b>

the 2007 base case emissions. Each year after 2008 imposes yet another 2,961 ton reduction requirement. Thus, the cumulative reduction requirements (relative to 2007 base case emissions) are at least 5,922 tons in 2009, 8,883 tons in 2010, 11,844 tons in 2011, and 14,805 tons in 2012.

The new MAG 2012 Five Percent Plan for PM-10 contains 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. While the 2007 Five Percent Plan was withdrawn, a wide range of control measures in that plan continue to be implemented to reduce PM-10 and are being resubmitted. Table ES-2 includes the Arizona Statutes, Maricopa County Rules, a Maricopa County Ordinance, and Appendices for the resubmitted measures and a new high risk measure to be approved into the MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area. The 2012 Five Percent Plan also includes contingency measures that were implemented early such as PM-10 certified street sweeping on freeways and arterials, as well as the projects completed in 2008-2011 that paved and stabilized unpaved roads, alleys and shoulders; reduced speed limits; and overlaid highways with rubberized asphalt.

As described in Table ES-2, the Arizona Statutes, Maricopa County Rules, and Maricopa County Ordinance include requirements to reduce PM-10 emissions from a broad range of sources. The requirements apply to unpaved roads and shoulders, leaf blowers, unpaved parking lots, vacant lots, sweeping streets with certified sweepers, off-road vehicle use, open and recreational burning, residential woodburning, covered vehicle loads, dust generating operations, nonmetallic mineral processing, and other unpermitted sources.

To meet the annual five percent reduction requirement in Section 189 (d) of the Clean Air Act, the MAG 2012 Five Percent Plan takes credit for increases in rule effectiveness for 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). The increases in rule effectiveness are attributable to strengthened enforcement and increased compliance with these rules. EPA has approved Rules 310 and 310.01 in 2010 and Rule 316 in 2009, as part of the State Implementation Plan. Compliance with these rules has increased every year since 2007.

These Maricopa County rules also reduce emissions from a wide variety of sources and apply to the Maricopa County area. Maricopa County Rule 310 (Fugitive Dust from Dust-Generating Operations) regulates fugitive dust emissions from sources and activities such as: land clearing, earthmoving, weed abatement, excavating, construction, demolition, bulk material handling, storage and transporting operations, outdoor equipment, motorized machinery, staging areas, parking areas, material storage areas, haul roads, disturbed surface areas, initial landscapes and trackout onto paved surfaces from these sources.

Maricopa County Rule 310.01 (Fugitive Dust from Non-Traditional Sources of Fugitive Dust) regulates fugitive dust emissions from sources and activities such as: vehicle use in

**Table ES-2**  
**Arizona Statutes, Maricopa County Rules, Maricopa County Ordinance,**  
**and Appendices to be Approved into the MAG 2012 Five Percent Plan for PM-10**  
**for the Maricopa County Nonattainment Area**

Arizona Revised Statutes (A.R.S.)	Description	Effective Dates
A.R.S. § 9-500.04. Only A.3., A.5., A.6., A.7., A.8., A.9. and H.	Air quality control; definitions [city and town requirements in Area A regarding targeting unpaved roads and shoulders; leaf blower restrictions; restrictions related to parking, maneuvering, ingress and egress areas and vacant lots; requirement for certified street sweepers]	9/19/07
A.R.S. § 9-500.27.	Off-road vehicle ordinance; applicability; violation; classification	9/19/07
A.R.S. § 11-871. Only A., B. and D.4.	Emissions control; no burn; exemptions; penalty [no burn restriction for any HPA day, increased civil penalty]	9/19/07
A.R.S. § 11-877.	Air quality control measures [county leaf blower restrictions]	9/19/07
A.R.S. § 28-1098. Only A. and C.1.	Vehicle loads; restrictions; civil penalties [for safety or air pollution prevention purpose]	9/19/07
A.R.S. § 49-424. Only 11.	Duties of department [develop and disseminate air quality dust forecasts for the Maricopa County PM-10 nonattainment area]	7/20/11
A.R.S. § 49-457.01.	Leaf blower use restrictions and training; leaf blower equipment sellers; informational material; outreach; applicability	9/19/07
A.R.S. § 49-457.03.	Off-road vehicles; pollution advisory days; applicability; penalties	9/19/07
A.R.S. § 49-457.04.	Off-highway vehicle and all-terrain vehicle dealers; informational material; outreach; applicability	9/19/07
A.R.S. § 49-457.05. Only A., B., C., D. and I.	Dust action general permit; best management practices; applicability; definitions	7/20/11
A.R.S. § 49-474.01. Only A.4., A.5., A.6., A.7., A.8., A.11., B. and H.	Additional board duties in vehicle emissions control areas; definitions [county requirements for stabilization of targeted unpaved roads, alleys and shoulders; restrictions related to parking, maneuvering, ingress and egress areas and vacant lots; requirement for certified street sweepers]	9/19/07
A.R.S. § 49-474.05.	Dust control; training; site coordinators	9/19/07
A.R.S. § 49-474.06.	Dust control; subcontractor registration; fee	9/19/07
A.R.S. § 49-501. Only A.2., B.1., C., F. and G.	Unlawful open burning; exceptions; civil penalty; definitions [ban on outdoor fires from May 1 to September 30; deletion of recreational purpose exemption; no burn day restrictions; penalty provision]	9/19/07
A.R.S. § 49-541. Only 1.	Definitions [Area A]	8/9/01

**Table ES-2 Continued**

Maricopa County Air Quality Department Rules	Description	Effective Dates
310	Fugitive Dust from Dust-Generating Operations Adopted 1/27/10 and submitted to EPA 4/12/10 [Notice of Final Rulemaking 75 FR 78167; 12/15/10]	EPA approved effective 1/14/11
310.01	Fugitive Dust From Non-Traditional Sources of Fugitive Dust Adopted 1/27/10 and submitted to EPA 4/12/10 [Notice of Final Rulemaking 75 FR 78167; 12/15/10]	EPA approved effective 1/14/11
314	Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments Adopted 3/12/08 and submitted to EPA 7/10/08 [Notice of Final Rulemaking 74 FR 57612; 11/9/09]	EPA approved effective 1/8/10
316	Nonmetallic Mineral Processing Adopted 3/12/08 and submitted to EPA 7/10/08 [Notice of Final Rulemaking 74 FR 58553; 11/13/09]	EPA approved effective 1/8/10
Appendix C	Fugitive Dust Test Methods Adopted 3/26/08 and submitted to EPA 7/10/08 [Notice of Final Rulemaking 75 FR 78167; 12/15/10]	EPA approved effective 1/14/11
Maricopa County Ordinance	Description	Effective Dates
P-26	Residential Woodburning Restriction Adopted 3/26/08 and submitted to EPA 7/10/08; [Notice of Final Rulemaking 74 FR 57612; 11/9/09]	EPA approved effective 1/8/10
Appendices	Description	Effective Dates
Appendix C, Exhibit 1	Arizona Revised Statutes Listed in Table 4-1	
Appendix C, Exhibit 2	Maricopa County Resolution to Evaluate Measures in the MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area	11/16/11
Appendix C, Exhibit 3	Arizona Department of Environmental Quality Dust Action General Permit	12/30/11
Appendix C, Exhibit 4	Arizona Department of Environmental Quality Commitment to Revise the MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area if Necessary for the Emerging and Voluntary Measure	

open areas and vacant lots, open areas, vacant lots, unpaved parking lots, unpaved roadways (including alleyways), easements, rights-of-way, access roads and trackout onto paved surfaces from these activities.

Maricopa County Rule 316 (Nonmetallic Mineral Processing) regulates fugitive dust and process dust emissions from sources and activities such as: mining, excavating, separating, combining, crushing and grinding any nonmetallic mineral, asphaltic concrete plants, raw material storage and distribution, concrete plants, bagging operations, open storage piles, material handling, haul roads, and trackout onto paved surfaces from these sources.

Emissions reduction credit is also taken for one new measure, the Dust Action General Permit, which was passed by the Arizona Legislature in April 2011. In accordance with A.R.S. § 49-457.05, this Dust Action General Permit identifies a series of Best Management Practices (BMPs) for specific dust generating operations. When ADEQ's Maricopa County Dust Control Forecast predicts that day is at high risk for 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 or the Maricopa County Air Quality Department are expected to choose and implement at least one BMP to reduce or prevent PM-10 emissions. Implementation of a BMP is expected to occur as soon as practicable before and during the high risk event. Although the BMPs in the Dust Action General Permit only apply to those sources that do not already have a permit, even dust generating operations with an air quality permit are also expected to implement the dust controls in their permit at the same time.

According to state statute, BMPs identified in the Dust Action General Permit are expected to be employed absent the requirement to obtain an air quality permit. If the owner or operator of a dust-generating operation is found by ADEQ's Director to have failed to choose and implement an applicable BMP as soon as practicable before and during a day that is forecast to be at high risk of dust generation, then the owner or operator can be required to obtain an Authorization to Operate under the Dust Action General Permit.

This new measure is expected to raise rule effectiveness for Rule 310.01 by one percent during high wind hours and was fully implemented by January 1, 2012. Credit for this measure is allowed under the EPA guidance, *Incorporating Emerging and Voluntary Measures in a State Implementation Plan*. The measures used to demonstrate the annual five percent reductions are also necessary to model attainment of the PM-10 standard under high wind conditions at all monitors as expeditiously as practicable, which is 2012.

Table ES-3 shows the impact of the increases in rule effectiveness on PM-10 emissions in 2008 through 2012. This table also quantifies the annual five percent reductions for 2008 through 2012. The total reduction in PM-10 emissions between 2007 and 2012 with the increases in rule effectiveness is 16,089 tons, which represents a 27.2 percent reduction in total 2007 base case emissions.

**Table ES-3  
2008-2012 PM-10 Emissions with Increased Rule Effectiveness**

Source Category	2008	2009	2010	2011	2012
	(tons/year)				
<b>POINT</b>	150	133	127	128	135
<b>AREA</b>					
Fuel combustion	1,301	1,307	1,311	1,316	1,328
Commercial cooking	993	998	1,001	1,005	1,014
Construction (includes windblown dust)	8,355	5,333	4,139	4,014	4,073
Tilling, harvesting and cotton ginning	893	893	893	893	893
Travel on unpaved farm roads	731	731	731	731	731
Livestock	261	261	261	261	261
Travel on unpaved parking lots	2,422	2,434	2,441	2,451	2,473
Offroad recreational vehicles	2,180	2,191	2,198	2,206	2,226
Leaf blowers	895	899	902	906	914
Windblown agriculture	448	448	448	448	448
Other windblown sources	3,938	3,788	3,788	3,788	3,639
Fires	497	497	497	497	497
Mining/quarrying (includes windblown dust)	476	401	355	356	369
Travel on industrial paved/unpaved roads	472	382	331	333	351
Other industrial sources	976	865	828	832	877
<b>NONROAD</b>					
Aircraft	184	152	142	143	146
Airport ground support equipment	27	23	21	20	20
Locomotives	34	34	34	34	34
Other nonroad equipment	1,683	1,661	1,641	1,595	1,513
<b>ONROAD</b>					
Exhaust	2,836	2,647	2,371	1,843	1,407
Tire wear	256	257	257	258	261
Brake wear	758	767	771	773	787
Paved roads	8,155	8,214	8,289	8,323	8,422
Unpaved roads and alleys	10,312	10,284	10,284	10,284	10,312
<b>Totals</b>	<b>49,231</b>	<b>45,600</b>	<b>44,062</b>	<b>43,438</b>	<b>43,130</b>
<b>5% Reduction Targets (tons/year)</b>	<b>2,961</b>	<b>5,922</b>	<b>8,883</b>	<b>11,844</b>	<b>14,805</b>
<b>Actual Plan Reductions (tons/year)</b>	<b>9,987</b>	<b>13,618</b>	<b>15,157</b>	<b>15,781</b>	<b>16,089</b>

Table ES-4 confirms that the annual five percent reduction requirements are met in 2008-2012 and there is a surplus margin of benefit in each year. The total surplus in 2012 is 1,284 tons. This surplus is needed to model attainment at all monitors in the PM-10 nonattainment area by December 31, 2012.

In accordance with the Clean Air Act, the MAG 2012 Five Percent Plan for PM-10 also includes contingency measures. The contingency measures are required to achieve emissions reductions beyond those measures relied upon to model attainment of the standard and demonstrate progress toward attainment (five percent reductions, reasonable further progress, and milestones). They are required to be undertaken without further action by the State or the EPA Administrator if the area fails to make reasonable further progress or meet the standard by the attainment date. EPA encourages early implementation of contingency measures to reduce emissions as expeditiously as practicable.

EPA guidance indicates that contingency measures should provide emissions reductions equivalent to one year of reasonable further progress. For the Five Percent Plan, one year of reasonable further progress is equivalent to a reduction in PM-10 emissions of 3,218 tons.

The contingency requirement is met in the MAG 2012 Five Percent Plan by quantifying projects that were completed in 2008-2011. A summary of the miles of roads, alleys and shoulders impacted by the paving and stabilization, speed limit reduction, and rubberized asphalt overlay projects that were quantified to meet the contingency requirement is presented in Table ES-5. These PM-10 reduction projects were implemented in the PM-10 nonattainment area by twenty-one cities and towns, Maricopa County, Pinal County, Arizona Department of Transportation and the Gila River Indian Community. All of the projects for which credit was taken were open to traffic by September 2011.

The emissions reductions for all measures quantified to meet the contingency requirement are summarized in Table ES-6. Table ES-6 includes the benefits of the PM-10 certified street sweeping on freeways and arterials, as well as the projects completed in 2008-2011 that paved and stabilized unpaved roads, alleys and shoulders; reduced speed limits; and overlaid highways with rubberized asphalt. The total PM-10 emissions reduction in 2012 is 3,439 tons, which exceeds the contingency target of 3,218 tons by 221 tons.

The total 2012 PM-10 emissions, with the air quality benefits from the wide variety of control measures and contingency projects applied, are 39,691 tons per year (see Table ES-7). Together, these measures reduce the 2007 base case PM-10 emissions by 19,527 tons or by 33 percent. A pie chart of the 2012 nonattainment area PM-10 emissions with the five percent measures and contingency projects applied is shown in Figure ES-4.

For conformity analyses, the onroad mobile source emissions budget includes reentrained dust from travel on paved roads; vehicular exhaust, tire wear, and brake wear; travel on unpaved roads; and road construction. In 2012, the PM-10 emissions from these four source categories total 54.9 metric tons per day for the PM-10 nonattainment area. This represents the onroad mobile source emissions budget for conformity.

**Table ES-4  
PM-10 Emission Reductions and Five Percent Reduction Requirements**

Year	5% Reduction Requirement	Total PM-10 Emission Reductions due to Increases in Rule Effectiveness	Excess Benefit = Total PM-10 Emission Reductions minus 5% Reduction Requirement	
	(tons/year)	(tons/year)	(tons/year)	(%)
2008	2,961	9,987	7,026	237%
2009	5,922	13,618	7,696	130%
2010	8,883	15,157	6,274	71%
2011	11,844	15,781	3,937	33%
2012	14,805	16,089	1,284	9%

**Table ES-5  
Miles of Roads/Alleys/Shoulders in PM-10 Reduction Projects**

Miles Impacted by Project Type	2008	2009	2010	2011	Total 2008-2011
Miles of dirt roads paved	41	18	8	16	83
Miles of dirt roads stabilized	39	39	36	31	145
Miles of dirt alleys paved	66	4	0	63	134
Miles of dirt alleys stabilized	164	106	124	106	501
Total miles of roads/alleys paved & stabilized	310	168	168	216	862
Miles of dirt shoulders paved	70	107	49	6	233
Miles of curb and gutter paved	19	0	0	0	19
Miles of dirt shoulders stabilized	235	236	236	200	906
Total miles of shoulders paved & stabilized	324	343	285	207	1,158
Miles of roads/alleys with lower speed limits	7	11	3	0	20
Miles of highway overlaid w/rubberized asphalt	13	0	0	0	13

**Table ES-6  
2008-2012 PM-10 Reductions to Meet Contingency Requirements**

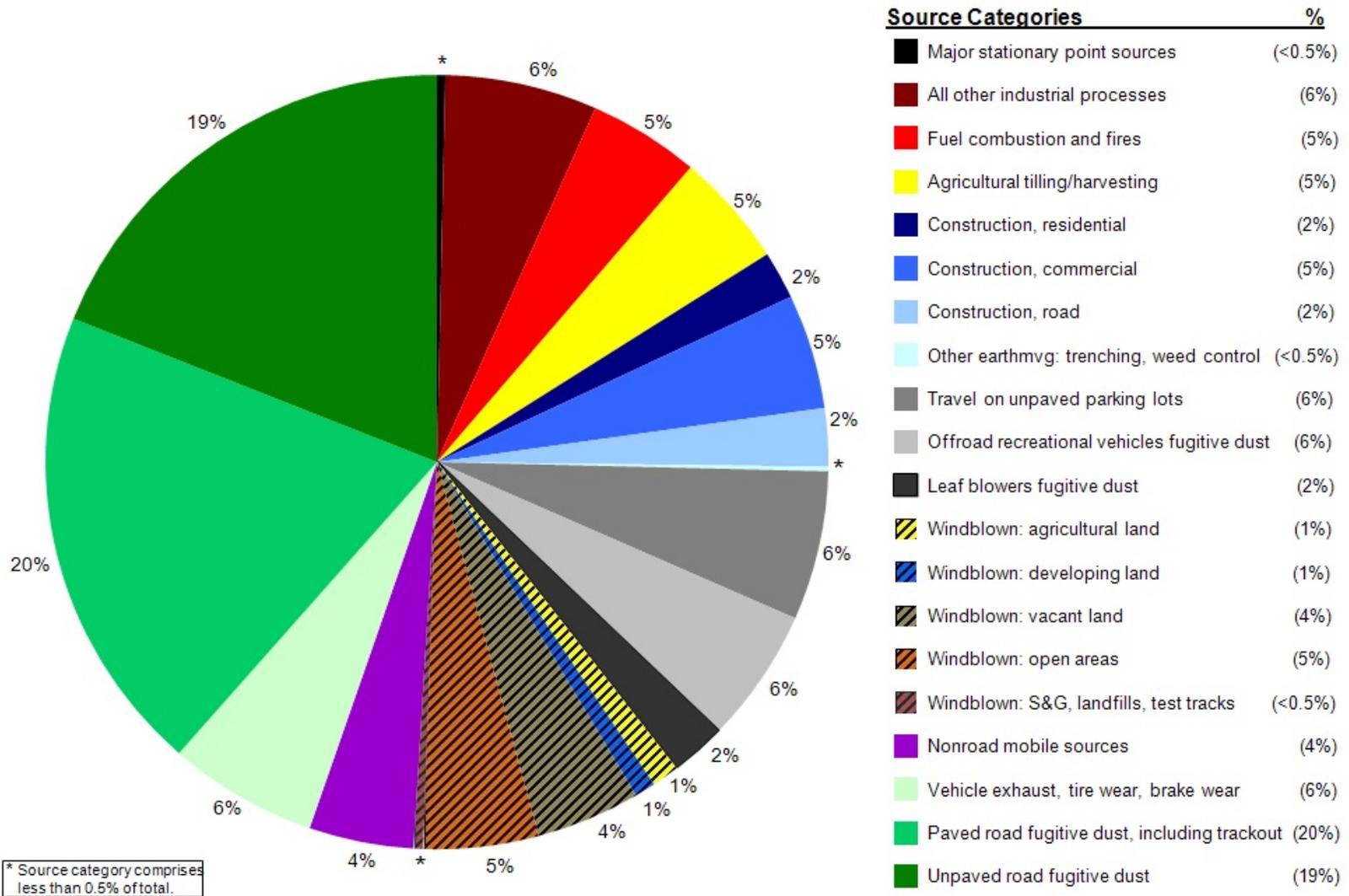
Completed Projects	Implementing Entities	2008	2009	2010	2011	2012
		(tons/year)				
<b>Sweep streets with PM-10 certified sweepers</b> Contracted sweeping of freeways, ramps and frontage roads - 100% compliant, effective 2/20/10 27 PM-10 certified sweepers purchased with CMAQ funds: 1/1/07-12/31/09	ADOT	0	0	294	342	344
	Cities, towns	59	116	153	154	155
	<b>Total for Street Sweeping</b>	<b>59</b>	<b>116</b>	<b>447</b>	<b>495</b>	<b>499</b>
<b>Pave or stabilize existing public dirt roads and alleys</b> Paving/stabilization projects completed in 2008-2011	Cities, towns, Maricopa and Pinal County Gila River Indian Community	461	1,352	2,124	2,662	2,625
	<b>Total for Road/Alley Paving/Stabilization</b>	<b>461</b>	<b>1,352</b>	<b>2,124</b>	<b>2,662</b>	<b>2,625</b>
<b>Lower speed limits on dirt roads and alleys</b> Speed limits lowered in 2008-2011	Cities, towns, Maricopa County	4	78	161	161	161
	<b>Total for Lower Speed Limits</b>	<b>4</b>	<b>78</b>	<b>161</b>	<b>161</b>	<b>161</b>
<b>Pave or stabilize unpaved shoulders</b> Paving/stabilization projects completed in 2008-2011	Cities, towns, Maricopa County	173	242	265	293	150
	<b>Total for Shoulder Paving/Stabilizing</b>	<b>173</b>	<b>242</b>	<b>265</b>	<b>293</b>	<b>150</b>
<b>Repave or overlay paved roads with rubberized asphalt</b> Rubberized asphalt overlays completed in 2008-2011	ADOT	0	3	3	3	3
	<b>Total for Overlays</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>Total for Completed Projects</b>		<b>697</b>	<b>1,790</b>	<b>2,999</b>	<b>3,614</b>	<b>3,439</b>

**Table ES-7**  
**2008-2012 PM-10 Emissions with Five Percent Plan Measures**  
**and Contingency Projects**

<b>Source Category</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>POINT</b>	150	133	127	128	135
<b>AREA</b>					
Fuel combustion	1,301	1,307	1,311	1,316	1,328
Commercial cooking	993	998	1,001	1,005	1,014
Construction (includes windblown dust)	8,355	5,333	4,139	4,014	4,073
Tilling, harvesting and cotton ginning	893	893	893	893	893
Travel on unpaved farm roads	731	731	731	731	731
Livestock	261	261	261	261	261
Travel on unpaved parking lots	2,422	2,434	2,441	2,451	2,473
Offroad recreational vehicles	2,180	2,191	2,198	2,206	2,226
Leaf blowers	895	899	902	906	914
Windblown agriculture	448	448	448	448	448
Other windblown sources	3,938	3,788	3,788	3,788	3,639
Fires	497	497	497	497	497
Mining/quarrying (includes windblown dust)	476	401	355	356	369
Travel on industrial paved/unpaved roads	472	382	331	333	351
Other industrial sources	976	865	828	832	877
<b>NONROAD</b>					
Aircraft	184	152	142	143	146
Airport ground support equipment	27	23	21	20	20
Locomotives	34	34	34	34	34
Other nonroad equipment	1,683	1,661	1,641	1,595	1,513
<b>ONROAD</b>					
Exhaust	2,836	2,647	2,371	1,843	1,407
Tire wear	256	254	255	255	259
Brake wear	758	767	771	773	787
Paved roads	7,922	7,857	7,578	7,534	7,772
Unpaved roads and alleys	9,847	8,854	7,999	7,461	7,525
<b>Totals</b>	<b>48,534</b>	<b>43,810</b>	<b>41,062</b>	<b>39,823</b>	<b>39,691</b>
<b>Total PM-10 Emissions Reduction 2007-2012:</b>	<b>19,527 tons, 33.0%</b>				

Figure ES-4

2012 PM-10 Emissions Inventory with Five Percent Plan Measures and Contingency Projects  
 PM-10 Nonattainment Area Total = 39,691 tons/yr



**2012 Exceedances of the 24-Hour PM-10 Standard by Date**  
(Preliminary Data Through April 4, 2012)

Date	Monitor	24-Hour Avg. PM-10 Concentration in $\mu\text{g}/\text{m}^3$	Additional Information
January 21, 2012	West 43rd Ave.	209.6	Frontal system high winds. During the event, a maximum west-southwest wind speed of 32.8 mph was recorded and an hourly average of 17.9 mph.
January 22, 2012	Higley	163.3	Residual dust from January 21, 2012 frontal system high winds.
February 27, 2012	West 43rd Ave.	167.8	Frontal system high winds. Three continuous Pinal County PM-10 monitors recorded exceedances on February 27, 2012.
April 3, 2012	West Chandler	402.4	According to the Arizona Department of Environmental Quality, the exceedances on April 3, 2012 and April 4, 2012 were caused by localized agricultural activity. Concentrations began increasing between 9:00 pm and 10:00 pm on April 3, 2012 and remained elevated through approximately 1:30 am on April 4, 2012.
April 4, 2012	West Chandler	196.5	According to the Arizona Department of Environmental Quality, the exceedances on April 3, 2012 and April 4, 2012 were caused by localized agricultural activity. Concentrations began increasing between 9:00 pm and 10:00 pm on April 3, 2012 and remained elevated through approximately 1:30 am on April 4, 2012.

**2012 Exceedances of the 24-Hour PM-10 Standard by Monitor  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAR - 2 2012

Mr. Hugh Hallman  
Chair, Maricopa Association of Governments Regional Council  
Mayor of Tempe  
302 North 1<sup>st</sup> Avenue  
Phoenix, Arizona 85003

OFFICE OF  
AIR AND RADIATION

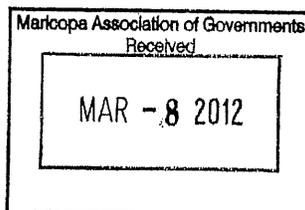
Dear Mr. Hallman:

Thank you for your letter of November 22, 2011, which identifies a conceptual approach to streamlining the exceptional events demonstration development and review process. I appreciate the importance of this issue for your community and region, and the efforts of your agency working with EPA to provide documentation on recent exceptional events. It is very important that EPA work closely with our partners, such the Maricopa Association of Governments Regional Council, as we find ways to improve how we handle exceptional air quality events.

As you are aware, the U.S. Environmental Protection Agency released the draft Exceptional Events Rule (EER) guidance documents on May 2, 2011. Our initial comment period for state, local, and tribal agencies ended on June 30, 2011, and we are currently compiling submitted comments and revising the draft guidance documents. We intend to distribute the compiled Response to Comments document to the original commenters, which includes the Maricopa Association of Governments Regional Council soon. We will also publish a Notice of Availability in the Federal Register announcing the availability of the revised draft exceptional events guidance documents for a 30-day public comment period.

We will consider your comments and streamlining approach as well as other feedback we get during the public comment period, at the conclusion of which we will determine our next steps, including whether to pursue final guidance and/or make a decision on whether to proceed with rule amendments. We will keep you and your staff involved in the development of the guidance and/or rule as we proceed. I recognize the importance of this issue and appreciate your thoughtful input.

Again, thank you for your letter and for your review and interest in the EPA's draft exceptional events guidance documents. We look forward to working with you to improve the exceptional events process.



Sincerely,

A handwritten signature in black ink, appearing to read "Janet McCabe".

Janet McCabe  
Principal Deputy Assistant Administrator

cc: Deborah Jordon  
Colleen McKaughan

**DRAFT**

**2010 IMPLEMENTATION STATUS OF COMMITTED MEASURES  
IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10 FOR THE  
MARICOPA COUNTY NONATTAINMENT AREA**

**APRIL 2012**



## **2010 IMPLEMENTATION STATUS OF COMMITTED MEASURES IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10 FOR THE MARICOPA COUNTY NONATTAINMENT AREA**

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

In May 2011, MAG issued a report summarizing the implementation status of the committed measures for calendar year 2009. The following 2010 implementation status report also incorporates the results from 2008 and 2009 in order to more accurately reflect the level of implementation of the committed measures in the region. Implementation of the committed measures in the Five Percent Plan were being phased in over a three-year period (2008, 2009, 2010).

Tracking forms were prepared to assist the implementing entities in reporting the progress made to implement the measures for calendar year 2010. The 2010 tracking forms were sent to MAG member agencies on August 10, 2011. All completed 2010 tracking forms were received by December 12, 2011. MAG has summarized the combined 2008, 2009 and 2010 status of the implementation of the committed measures. In general, the combined implementation results for 2008, 2009, and 2010 meet or exceed the commitments made to implement a majority of the measures in the MAG Five Percent Plan for PM-10. Table 1 summarizes the measures that exceeded their commitments. Table 2 lists the implementation status of all of the committed measures in the Five Percent Plan for PM-10.

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

### **BACKGROUND INFORMATION**

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

On May 23, 2007, the MAG Regional Council approved additional items for the Suggested List of Measures to Reduce PM-10. One of the items was that each year, MAG would issue a report on the status of the implementation of the committed measures for this region by the cities, towns, Maricopa County and the State. The report would be made available to the Governor's Office, Legislature, Arizona Department of Environmental Quality and the Environmental Protection Agency. This report provides the combined implementation status of committed measures for calendar years 2008, 2009, and 2010.

The forms for tracking the implementation of committed measures were developed with input from the implementing entities. On September 15, 2011, MAG conducted a workshop to discuss the tracking of the measures for calendar year 2010.

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

**TABLE 1**  
**MEASURES THAT EXCEEDED 2008, 2009, and 2010 COMMITMENTS**  
**IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10**

COMMITTED MEASURE	COMMITMENT	ACTUAL	EXCEEDED COMMITMENT
<b>26. Pave or stabilize existing public dirt roads and alleys.</b> <ul style="list-style-type: none"> <li>• Pave public dirt roads.</li> <li>• Stabilize public dirt roads.</li> <li>• Pave dirt alleys.</li> <li>• Stabilize dirt alleys.</li> </ul>	<p style="text-align: center;">28.63 miles</p> <p style="text-align: center;">75.49 miles</p> <p style="text-align: center;">63.89 miles</p> <p style="text-align: center;">308.85 miles</p>	<p style="text-align: center;">67.12 miles</p> <p style="text-align: center;">114.22 miles</p> <p style="text-align: center;">70.39 miles</p> <p style="text-align: center;">394.52 miles</p>	<p style="text-align: center;">38.49 miles</p> <p style="text-align: center;">38.73 miles</p> <p style="text-align: center;">6.50 miles</p> <p style="text-align: center;">85.67 miles</p>
<b>27. Limit speeds to 15 miles per hour on high traffic dirt roads.</b> <ul style="list-style-type: none"> <li>• Post 15 mph speed limit signs.</li> </ul>	<p style="text-align: center;">24.36 miles</p>	<p style="text-align: center;">36.86 miles</p>	<p style="text-align: center;">12.50 miles</p>
<b>28. Pave or stabilize unpaved shoulders.</b> <ul style="list-style-type: none"> <li>• Pave unpaved shoulders.</li> <li>• Stabilize unpaved shoulders.</li> </ul>	<p style="text-align: center;">95.87 curb miles</p> <p style="text-align: center;">296.64 curb miles</p>	<p style="text-align: center;">253.20 curb miles</p> <p style="text-align: center;">706.10 curb miles</p>	<p style="text-align: center;">157.33 curb miles</p> <p style="text-align: center;">409.46 curb miles</p>
<b>53. Repave or overlay paved roads with rubberized asphalt.</b> <ul style="list-style-type: none"> <li>• Repave highway with rubberized asphalt.</li> </ul>	<p style="text-align: center;">5.21 miles</p>	<p style="text-align: center;">13.03 miles</p>	<p style="text-align: center;">7.82 miles</p>
<b>45. Prohibit use of leaf blowers on unstabilized surfaces.</b>	<p style="text-align: center;">Maricopa County</p>	<p style="text-align: center;">Maricopa County</p> <p style="text-align: center;">1 local government</p>	<p style="text-align: center;">1 local government</p>

**TABLE 2**  
**2008, 2009, AND 2010 IMPLEMENTATION STATUS OF COMMITTED MEASURES**  
**IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10**

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Fugitive Dust Control Rules</b>		
<p><b>1. Public education and outreach with assistance from local governments.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>826 Articles (internal and public media, newsletters, etc.) were published. 460 Media / Events (specific air events, booths on air quality at other events, media, etc.) were held.</p> <p>Over 178,336 visits to the Maricopa County Air Quality Department (MCAQD) website; over 24,000 visits to the Air Quality news page; 180,221 total page views on <a href="http://www.CleanAirMakeMore.com">www.CleanAirMakeMore.com</a>. In addition to publishing articles and conducting events, Maricopa County and 14 local governments performed other types of public education and outreach activities.</p>	<p>County, State, local governments</p>
<p><b>2. Extensive Dust Control Training Program.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Dust Control training program required by Senate Bill (SB) 1552. (A.R.S. § 49-474.05 A. &amp; B.)</p> <p>In March 2008, Maricopa County adopted Rule 310, Rule 280, and Rule 316 revisions in regard to dust control training.</p> <p>In 2008, Maricopa County hired 2 dust control compliance and 2 administrative support personnel to coordinate and conduct the training program. In 2009, two inspectors and two administrative staff worked part time to coordinate and conduct the Rule 310 and Rule 316 Dust Control Training programs. In 2010, two inspectors worked part time managing the Rule 310 Third Party Training program, and a third inspector worked part time managing the Rule 316 Dust Control Training program. During November &amp; December, one full time employee was dedicated to transitioning the Rule 310 training program from third party to in-house. Additionally, 2 administrative staff worked part time on the Rule 310 and Rule 316 Dust Control Training programs.</p> <p>15,443 individuals completed County-certified dust control training classes. This includes training conducted by certified trainers in local government. One local government has provided all applicable workers with dust control training. In one jurisdiction, 63 staff received training and certificates for the Maricopa County Basic Dust Control Rule 310 and 1 staff member received the Comprehensive Dust Control Rule 310 training and certificate. In one federal agency, 2 staff members completed training to become certified dust control coordinators.</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>3. Dust Managers required at construction sites of 50 acres and greater.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Dust managers required by SB 1552. (A.R.S. § 49-474.05 A. &amp; E.)</p> <p>In March 2008, Maricopa County adopted Rule 310 and Rule 316 revisions in regard to dust managers.</p>	<p>County</p>
<p><b>4. Dedicated enforcement coordinator for unpaved roads, unpaved parking, and vacant lots.</b></p>	<p>Maricopa County assigned a supervisor to oversee the vacant lot program.</p>	<p>County</p>
<p><b>5. Establish a certification program for Dust Free Developments to serve as an industry standard.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>SB 1552 required ADEQ to establish a certification program. (A.R.S. § 49-457.02 A.)</p> <p>This measure was not implemented because ADEQ delayed the certification program indefinitely due to budgetary constraints. In 2010, ADEQ refocused resources on control measures that result in emissions reductions.</p> <p>Maricopa County will support ADEQ's efforts (when ADEQ's budgetary constraints are lifted) to develop a program to certify and publicize companies that routinely demonstrate exceptional efforts to reduce airborne dust.</p> <p>As the regulatory authority, Maricopa County will provide verifications of eligible companies as necessary to implement this program and as requested by ADEQ.</p>	<p>State, County</p>
<p><b>6. Better defined tarping requirements in Rule 310 to include enclosure of the bed.</b></p>	<p>In March 2008, Maricopa County adopted Rule 310 and Rule 310.01 revisions in regard to tarping.</p> <p>Maricopa County changed the requirements regarding loading haul trucks (i.e., load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area).</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>7. Conduct mobile monitoring to measure PM-10 and issue NOVs.</b></p>	<p>In December 2008, Maricopa County filled 1 chemical engineering position for the mobile monitoring program. In February 2009, the mobile monitoring van was delivered to Maricopa County. Two deployments in 2009: (1) Fisher Sand and Gravel on 28th Street, and (2) Gas separating plant near Olive Avenue and El Mirage Road. Two deployments in 2010: (1) 5% Monitoring Project, and (2) Characterization Study.</p>	<p>County</p>
<p><b>8. Conduct nighttime and weekend consistent inspections.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Although Maricopa County conducted nighttime and weekend inspections during 2008, the program was not fully implemented, as the department was focused on hiring and training additional staff.</p> <p>Nighttime and weekend inspections conducted in 2008 included complaint inspections and targeted inspections of specific industries that operate at night and on weekends.</p> <p>In 2009, Maricopa County initiated a pilot program to enhance the existing nighttime and weekend inspection program. The pilot program extended weekday inspection hours to include 4:00 to 6:00 a.m. and 5:00 to 8:00 p.m. and weekends from 6:00 a.m. to 2:30 p.m.. Following the pilot program, the County initiated a cross-training program for all inspectors to better utilize their abilities to deal with all circumstances and source types they may encounter. The After Hours program for 2010 consisted of as needed nighttime and weekend responses to complaints or identified problems for a portion of the year. The remainder of 2010 included staffing patrol and inspection activities outside of the standard schedule of weekday inspections to test the effectiveness of such a program.</p>	<p>County</p>
<p><b>9. Increase consistent inspection frequency for permitted sources.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>In March 2008, Maricopa County adopted Rule 280 revisions in regard to inspection frequency.</p> <p>In 2008, Maricopa County hired 55 staff: 32 inspectors, 13 administrative and permit technicians, 6 inspector supervisors, and 4 administrative supervisors for the Dust Control Compliance Program. Some staff reductions/reassignments occurred in 2009 due to the economic downturn and reduced workload. As of December 31, 2009, the MCAQD had 55 staff in the Dust Control Section (44 inspectors, 4 administrative, 6 supervisors, 1 manager).</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>9. Increase consistent inspection frequency for permitted sources - CONTINUED.</b></p>	<p>For 2010, the MCAQD had 47 staff that could generally be considered the Dust Control Section (36.5 inspectors, 4.5 administrative, 5 supervisors, 1 manager). The MCAQD began implementation of a universal inspector program in October of 2009 wherein all inspectors are cross trained to conduct inspections on all source types. By the end of 2010, all inspectors have been cross trained, therefore, MCAQD no longer has staff dedicated to inspect only one specific source type such as dust or non-title V sources.</p> <p>Maricopa County issued 9,305 permits for dust control sources (Rule 310).</p> <p>Maricopa County conducted 39,433 inspections of dust control permitted sources (Rule 310).</p> <p>In 2008, Maricopa County hired 5 inspectors for nonmetallic mineral processing facilities (Rule 316). These 5 inspector positions are included in the 32 inspector positions mentioned above. The MCAQD's universal inspector program as explained above in the "Staffing for Dust Control Compliance Program (Rule 310)" now encompasses Rule 316 sources as well.</p> <p>Maricopa County issued 412 permits for nonmetallic processing facilities (Rule 316).</p> <p>Maricopa County conducted 4,325 inspections of nonmetallic mineral processing facilities (Rule 316).</p>	
<p><b>10. Increase number of proactive consistent inspections in areas of highest PM-10 emissions densities.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Maricopa County conducted monitor surveillance on 16 days.</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
11. <b>Notify violators more rapidly to promote immediate compliance.</b>	Maricopa County Air Quality Department (MCAQD) continued the standard practice of dust compliance inspectors who observe potential violations making reasonable efforts to inform a person on-site or call the permit holder so that measures can be taken to prevent, reduce, or mitigate dust generation before a violation occurs.	County
12. <b>Provide timely notification regarding high pollution days.</b>	<p>Maricopa County sent 2,227,476 text alerts and email messages to subscribers for high pollution advisories (HPAs) and health watches.</p> <p>Maricopa County posted news articles, related to particulate matter HPAs and health watches, on its website. Maricopa County website visits in 2008: 20,727 unique visitors; average pages visited = 3.24; average time spent = 2.22 minutes. Maricopa County website visits in 2009: 22,597 unique visitors; average pages visited = 2.22; average time spent = 1.18 minutes.</p> <p>Maricopa County distributed 16 news releases in 2009 and 40 news releases in 2010 regarding HPAs and health watches.</p>	County
13. <b>Develop a program for subcontractors.</b>	<p>Subcontractor program required by SB 1552. (A.R.S. § 49-474.06 A.)</p> <p>In March 2008, Maricopa County adopted Rule 200 and Rule 280 revisions in regard to the subcontractor registration program.</p> <p>In 2008, Maricopa County hired 4 permit technicians to administer the subcontractor registration program. These positions are included in the 55 positions noted in Committed Measure #9. In 2009 and 2010, the subcontractor registration program was administered part time by two Permit Technician staff working in the Permitting Division of the Air Quality Department.</p> <p>Maricopa County registered 9,417 subcontractors.</p>	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>14. Reduce dragout and trackout emissions from nonpermitted sources.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>In March 2008, Maricopa County adopted Rule 310.01 revisions in regard to dragout and trackout.</p> <p>Maricopa County added the requirement to install a trackout control device to sections covering unpaved parking lots and off-site hauling of bulk materials by livestock operations. Also, in Rule 310.01, Maricopa County added the definitions of "trackout/carryout" and "trackout control device".</p> <p>In 2010, one jurisdiction issued a written notice of violation (NOV) for dirt, mud, and debris that was tracked onto a city right-of-way and issued one stop work order until a track-out device was rebuilt and a vehicle parking area was stabilized.</p>	<p>County</p>
<p><b>15. Cover loads/haul trucks in Apache Junction.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>In early 2008, the City of Apache Junction adopted an ordinance to cover loads/haul trucks.</p>	<p>City of Apache Junction</p>
<p><b>16. Require dust coordinators at earthmoving sites of 5-50 acres.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Dust coordinator required by SB 1552. (A.R.S. § 49-474.05 A. &amp; E.)</p> <p>In March 2008, Maricopa County adopted Rule 310 and Rule 316 revisions in regard to dust coordinators.</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>36. Require barriers in addition to Rule 310 stabilization requirements for construction where all activity has ceased, except for sites in compliance with storm water permits.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>In March 2008, Maricopa County adopted Rule 310 revisions in regard to barriers.</p> <p>Maricopa County revised long-term stabilization control measures to reduce the period of inactivity to 30 days and linked the stabilization by water control measure with the requirement for barriers.</p>	<p>County</p>
<p><b>37. Reduce the tolerance of trackout to 25 feet before immediate cleanup is required for construction sites be placed in Maricopa County Rule 310.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>In March 2008, Maricopa County adopted Rule 310 revisions in regard to the trackout requirements by reducing the toleration of trackout to 25 feet before cleanup is required.</p>	<p>County</p>
<p><b>38. No visible emissions across the property line be placed in Maricopa County Rule 310 and 310.01, and in local ordinances for nonpermitted sources appropriate.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>In March 2008, Maricopa County adopted Rule 310 and Rule 310.01 revisions in regard to visible emissions.</p> <p>One local government adopted an ordinance that restricts visible emissions from crossing property lines.</p>	<p>County, local governments</p>
<p><b>49. Allow Peace Officer enforcement of load covering.</b></p>	<p>SB 1552 amended existing state law to require that for the purpose of highway safety or air pollution prevention, a person shall not drive or move a vehicle on a highway unless the vehicle is constructed or loaded in a manner to prevent any of its load from dropping, sifting, leaking or otherwise escaping from the vehicle. (A.R.S. § 28-1098 A. - C.)</p>	<p>State</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Industry</b>		
<p><b>17. Fully implement Rule 316.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>The Rule 316 litigation was settled on June 20, 2007. As a result, the June 8, 2005, version of Rule 316 was in place as of the settlement date. Maricopa County is enforcing the provision of Rule 316 for nonmetallic mineral processing sources of PM-10.</p> <p>In 2009, 37 of the 44 Dust Control Section inspectors had been fully trained to inspect Rule 316 sites.</p> <p>The MCAQD's universal inspector program, as explained in Committed Measure #9 "Staffing for Dust Control Compliance Program (Rule 310)", now encompasses Rule 316 sources as well.</p>	County
<p><b>39. Modeling cumulative impacts - The measure would need further definition by Maricopa County and the Arizona Department of Environmental Quality and be subject to input to ensure that unintended consequences for temporary uses are not created.</b></p>	<p>A draft Cumulative Modeling Policy was developed by the Maricopa County Air Quality Department and the Arizona Department of Environmental Quality in calendar year 2009. The draft policy was distributed for public review in February 2010. Next steps are being considered by the Maricopa County Air Quality Department.</p> <p>It is important to note that no emission reduction credit was quantified for this measure in the Five Percent Plan.</p>	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Nonroad Activities</b>		
<b>18. Ban or discourage use of leaf blowers on high pollution advisory days.</b>	<p>Program to ban or discourage leaf blowers required by SB 1552. (A.R.S. § 9-500.04 A.5.(a). and A.R.S. § 11-877 A.1.)</p> <p>Maricopa County and 23 local governments have implemented programs that restrict or prohibit the use of leaf blowers on high pollution advisory days.</p>	<p>County, local governments</p>
<b>19. Reduce off-road vehicle use in areas with high off-road vehicle activity impoundment or confiscation of vehicles for repeat violations.</b>  Quantified for numeric credit as a contingency measure.	<p>Ordinance to prohibit off-road vehicle use required by SB 1552. (A.R.S. § 9-500.27 A.- E. and A.R.S. § 49-457.03)</p> <p>In February 2008, Maricopa County adopted the P-28 Off-Road Vehicle Use in Unincorporated Areas of Maricopa County Ordinance. This ordinance was developed to address dust concerns raised by vehicle use and trespass on private and public property. It is intended to complement Maricopa County Rule 310.01, which focuses on property owners' responsibility to maintain soil stabilization. OHV issues within incorporated areas reflect similar complexities.</p> <p>Ordinance P-28 underwent revisions in 2010 to its penalty structure, which is intended to provide more flexibility in adjudicating cases.</p> <p>MCAQD is working toward developing a common knowledge base regarding frequent complaint areas and their access points, enforcement history, ongoing outreach efforts by police departments, Justice Court procedures, and database needs. In addition to responding to complainants' concerns, MCAQD has organized a group of inspectors to gather this type of information and begin making direct contacts in the field. MCAQD plans to identify heavy use areas and research parcel ownership, and then contact property owners for installation of control measures, "no trespass" signs, and obtain authority to cite trespassers without land owner's presence. This is currently being done in conjunction with MCAQD's existing vacant lot inspection program. The process for storing and retrieving such "authority documents" is being reviewed. Additional cooperative efforts are underway to incorporate private land use agreements, Designated Trail plans, and other historically-used access roads into ongoing efforts.</p>	<p>State, County, local governments</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>19. Reduce off-road vehicle use in areas with high off-road vehicle activity impoundment or confiscation of vehicles for repeat violations - CONTINUED.</b></p>	<p>In 2009, MCAQD initiated efforts to develop a partnership with law enforcement agencies, not only to address the inspectors' limited authority on these contacts, but also to provide a consistent enforcement message to the public. Law enforcement agencies (Phoenix Police Department, Peoria Police Department, Maricopa County Flood Control District, and Maricopa County Sheriff's Office) have begun using this ordinance to initiate field contacts.</p> <p>MCAQD is laying groundwork for both internal and external processes, including coordinating inspector field contacts with law enforcement response. MCAQD is also familiarizing inspectors with fieldwork, contact skills, and safety, and working with the Justice Court system on administrative procedures. Maricopa County Sheriff's Office (MCSO) success within the court system is as yet undetermined. Arizona Game and Fish Department initiated actively enforcing OHV laws and an ongoing OHV educational program.</p> <p>MCAQD inspectors distribute off-road vehicle fact sheets in the field informally when contacts are made. Information is included in the Clean Air Make More Campaign. Inspectors are prepared to attend OHV-enthusiast events as the opportunity is available. County inspectors attended at least one off-road vehicle enthusiast event, partnering with Arizona State Trust Land staff to field questions from the public. County inspectors attended the AZGFD Expo in March 2009 and distributed off-road vehicle fact sheets.</p> <p>MCAQD indicated that high-use areas are generally located outside of city limits or on State Trust property; local police departments and MCSO have begun responding to some of these areas, supported by available funds from the Off-Highway Vehicle (OHV) Decal program (registration fees). MCAQD also indicated that funds from the OHV Decal program were being used by: (1) Maricopa Flood Control District to hire a deputy to enforce Maricopa County's P-28 Off-Road Vehicle Use in Unincorporated Areas of Maricopa County Ordinance, and (2) Arizona Game and Fish Department to hire two staff and train two more staff for enforcement of the P-28 ordinance.</p>	

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p>19. <b>Reduce off-road vehicle use in areas with high off-road vehicle activity impoundment or confiscation of vehicles for repeat violations - CONTINUED.</b></p>	<p>23 local governments have new or existing ordinances to prevent or discourage off-road vehicle use and restrict access to areas with high off-road vehicle use. ADEQ distributed 3,900 hard copies of "Nature Rules" map to OHV dealers and posted materials on the Arizona State Parks website (received 11,660 downloads/visits), Arizona State Land Department's website (received 6,251 visits), ADEQ's website (received 5,430 downloads/visits), and the Arizona Game and Fish Department website.</p> <p>Maricopa County, 17 local governments, and ADEQ, have conducted public education and outreach to discourage off-road vehicle use in the PM-10 nonattainment area. The Tonto National Forest included a segment on dust control education in its OHV training program.</p> <p>9 jurisdictions with high off-road activity have restricted vehicle use by installing signs and/or physical barriers. One local government: (1) Stabilized 57 acres with hydroseed (2) Posted "No Trespassing" signs, installed berms, and/or stabilized 137 acres of vacant area, including two washes, with hydroseed, and (3) Stabilized 2.25 acres of open area next to a wash with decomposed granite and rip rap. Two local governments fenced 16.25 acres to prevent vehicle access.</p> <p>In 2008, Arizona State Parks installed one kiosk and two access gates; replaced 1 mile of fencing; provided outreach at 77 official events; and provided 3,100 public information contacts. In 2008, Arizona Game and Fish Department issued 27 citations for violations of the OHV law. The Arizona State Land Department (ASLD) spent \$159,203 to implement the following control measures: installation of 1,037 linear feet of concrete barriers; installation of 7,352 linear feet of chain link fence; purchase of 300 "No Trespassing" signs; purchase and installation of two 10-foot gates; posting of 38 "Area Closed by Commissioners Orders" signs; posting of 2 "Closed for Soil Stabilization" signs; posting of 14 "No Trespassing" signs; and increased the presence of law enforcement.</p>	

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p>19. Reduce off-road vehicle use in areas with high off-road vehicle activity impoundment or confiscation of vehicles for repeat violations - CONTINUED.</p>	<p>In 2009, ASLD posted 53 "No Trespassing" signs and 30 area closure signs. ASLD also installed 3,770 linear feet of chain link fence around closed areas. In 2009, the U.S. Forest Service installed three gates to limit unauthorized OHV access in the Tonto National Forest.</p> <p>In 2010, MCAQD's Clean Air Make More widget was added to ADEQ's and ASLD's websites. Arizona Game and Fish (AZGF) and Arizona State Parks are working to add the widget to their websites. Arizona State Parks [<a href="http://azstateparks.com/ohv/">http://azstateparks.com/ohv/</a>] included links on its website to the OHV Ambassadors program, Where to Ride, and the new OHV decal program. ADEQ updated and clarified its map showing the Area A boundary and the "OHV use allowed" areas.</p> <p>In 2010, the U.S. Bureau of Land Management distributed OHV materials to 754 individuals at a total of 22 training programs and conducted 4 OHV outreach events. Maricopa County Air Quality Department conducted 11 OHV dust control presentations and trained 240 people.</p> <p>"Arizona State Land Department, Off-Highway Vehicle Recreation Fund and Travel Management Program Annual Reports, Fiscal Years 2009 - 2011" listed the following information: (1) Law Enforcement: An agreement with City of Peoria was extended in 2010 through 2013 and ASLD provided training and field books. ASLD began a 5 year agreement with the Maricopa County Sheriff's Department and committed financial assistance and training for enforcement of off-highway vehicle laws, (2) Information and Education: ASLD provided a map on its website identifying routes within "Area A" that have been approved for motorized travel and (3) Outreach: ASLD participated in OHV Ambassador Training, AGFD's Outdoor EXPO, and National Forest Travel Management Plan public meetings.</p>	

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>20. Provide incentives to retrofit nonroad diesel engines and encourage early replacements with advanced technologies.</b></p>	<p>In 2007, the Arizona Legislature adopted Senate Bill 1552 which included a voluntary diesel equipment retrofit program. (A.R.S. § 49-474.07 A. - D.)</p> <p>According to A.R.S. § 49-474.07 A., a County with a population of more than four hundred thousand persons shall operate and administer a voluntary diesel emissions retrofit program in the county for the purpose of reducing particulate emissions from diesel equipment. The program shall provide for real and quantifiable emissions reductions based on actual emissions reductions by an amount greater than that already required by applicable law, rule, permit or order and computed based on the percentage emissions reductions from the testing of the diesel retrofit equipment prescribed in Subsection C as applied to the rated emissions of the engine and using the standard operating hours of the equipment.</p> <p>Maricopa County Air Quality Department (MCAQD) has indicated that A.R.S. § 49-474.07 did not establish a fund to provide incentives to retrofit nonroad engines, but rather established provisions applicable to permitted stationary source diesel powered equipment. Under the provisions of ARS 49-474.07, the permittee may retain one-half of the particulate emissions reductions from retrofit of diesel equipment operated at the permitted site for purposes of receiving a permit modification or a new permit provision that allows for extended hours of operation for the permitted equipment. The provisions of ARS § 49-747.07 are undergoing legal review and analysis during the current statewide new source review rulemaking, and if implemented, will require revision of MCAQD's stationary source permitting program and applicable rules. However, this review and analysis has no bearing on the Five Percent Plan or on Committed Measure #20.</p> <p>It is important to note that no emission reduction credit was quantified for this measure in the Five Percent Plan.</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>21. Ban leaf blowers from blowing debris into streets.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Ordinance required by SB 1552. (A.R.S. § 9-500.04 A.5.(b)., A.R.S. § 11-877 A.2., and A.R.S. § 49-457.01 B.)</p> <p>In February 2008, Maricopa County adopted the P-25 Leaf Blower Restriction Ordinance to ban leaf blowers from blowing debris into streets in Maricopa County. In 2009, 17 of the 44 MCAQD's Dust Control Section Inspectors were trained to enforce the leaf blower ordinance. In addition, 23 local governments have new or existing ordinances to ban leaf blowers from blowing debris into streets. MCAQD's universal inspector program, as explained in Committed Measure #9 in the "Staffing for Dust Control Compliance Program (Rule 310)", now encompasses all sources.</p>	<p>County, local governments</p>
<p><b>22. Implement a leaf blower outreach program.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Leaf blower outreach program required by SB 1552. (A.R.S. § 49-457.01 D., E. and F.)</p> <p>ADEQ produced and distributed 8,000 hard copies of leaf blower fact sheets to six retail leaf blower outlets. In addition, retailers and equipment rental businesses throughout Area A were provided with electronic copies of ADEQ's 'Pointers on Operating a Leaf Blower' with the expectation they would print and distribute the handout at points of sale and rental. ADEQ distributed warning signs for posting on HPA days to leaf blower rental outlets.</p> <p>ADEQ authored an article about the unsafe use of leaf blowers that was published in the Arizona Landscape Contractors Association's (ALCA) Influence magazine. A public-awareness advertisement was published in the ALCA Influence and Southwest Horticulture magazines.</p> <p>ADEQ's leaf blower outreach materials, which were posted on the agency's website (<a href="http://www.azdeq.gov/environ/air/prevent/index.html">www.azdeq.gov/environ/air/prevent/index.html</a>), received a total of 14,980 visits. ADEQ adapted and posted a leaf blower training manual, provided by the Outdoor Power Equipment Institute, on ADEQ's website. Those materials received 2,884 downloads/visits.</p> <p>A number of cities and towns also conduct leaf blower outreach as part of the efforts reported in Committed Measure #1.</p>	<p>State</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>23. Ban ATV use on high pollution days.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>All terrain vehicle (ATV) ban on high pollution days required by SB 1552. (A.R.S. § 49-457.03)</p> <p>ADEQ distributed High Pollution Advisory (HPA) forecasts to subscribers and to the U.S. Forest Service, U.S. Bureau of Land Management, Arizona State Land Department, Arizona Game and Fish Department, Arizona State Parks Department, and the Maricopa County Air Quality Department. ADEQ also posted HPA forecasts and warnings on the agency's website and works with television broadcast stations to communicate HPA notices to the public.</p> <p>On February 27, 2009, Fox Motorsports filmed a half-hour program focused on off-highway vehicle (OHV) use and the 5% Plan requirements on High Pollution Advisory Days. Representatives of ADEQ, MCAQD, Arizona Game and Fish, Arizona State Lands, U.S. Bureau of Land Management and the Arizona Rock Products Association were filmed near the Hassayampa River for this program. Broadcast date has not yet been scheduled.</p> <p>ADEQ: "Law enforcement officers who are authorized under Title 28 will enforce this requirement. On Federal Lands, the Federal agency with jurisdiction enforces it". In 2009, the police departments of Peoria and Phoenix issued a total of 132 warnings and 35 citations for violations of the OHV ban on PM-10 HPA days.</p> <p>In 2010, 31 students completed an online safety course provided by Arizona Game and Fish (AZGF). AZGF issued 40 OHV citations in Phoenix during Fiscal Year (FY) 2011. In a report to the Arizona Legislature dated August 29, 2011, AZGF reported spending \$1,304,865 in FY 2011 for OHV law enforcement from the off-highway vehicle recreation fund and has hired two full time employees for law enforcement in Area A.</p> <p>Arizona State Land Department (ASLD) employs one full-time Trespass Inspector and spent \$23,941 on contracted law enforcement in 2010. ASLD also spent \$11,378 on signs (including closure signs). ASLD enforcement issued 113 OHV citations and 248 OHV warnings in 2010.</p>	<p>State</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>45. Prohibit use of leaf blowers on unstabilized surfaces.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Ordinance required by SB 1552. (A.R.S. § 11-877 A.3. and A.R.S. § 49-457.01 C.)</p> <p>In February 2008, Maricopa County adopted Ordinance P-25 to prohibit use of leaf blowers on unstabilized surfaces. All inspectors have been trained to enforce the leaf blower ordinance as part of the universal inspector program described in Committed Measure #9.</p> <p>In addition, a local government, although not required, adopted this ordinance.</p>	<p>County</p>
<p><b>46. Outreach to off-road vehicle purchasers.</b></p>	<p>The Arizona State Parks Department has convened a Dealer Pilot Program Committee to develop printed dust abatement educational materials for off-road vehicle renters/purchasers. ADEQ participates in these committee meetings.</p>	<p>State</p>
<p><b>Paved Roads</b></p>		
<p><b>24. Sweep street with PM-10 certified street sweepers.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>SB 1552 requires that new or renewed contracts for street sweeping on city streets must be conducted with PM-10 certified street sweepers. (A.R.S. § 9-500.04 A.9. and A.R.S. § 49-474.01 A.8.)</p> <p>The three local governments, that issue street sweeping contracts, require that their contractors use PM-10 certified street sweepers.</p> <p>Effective February 20, 2010, ADOT's contract for sweeping State Highways requires use of PM-10 certified street sweepers.</p> <p>Maricopa County uses its PM-10 certified street sweeping contract to routinely sweep 700 miles (1,400 curb miles) of streets.</p> <p>Maricopa County and local governments purchased 38 PM-10 certified street sweepers with CMAQ funds and 5 PM-10 certified street sweepers with other funds.</p>	<p>State, County, local governments</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>52. Coordinate public transit services with Pinal County.</b></p>	<p>ADOT has coordinated public transit services with Pinal County. See the following websites for information regarding this coordination:</p> <p>(1) Arizona Rural Transit Needs Study Final Report - May 2008 (<a href="http://www.azdot.gov/mpd/Community_Grant_Services/PDF/Rural_Transit_Needs_Study_Final_Report_May_2008.pdf">http://www.azdot.gov/mpd/Community_Grant_Services/PDF/Rural_Transit_Needs_Study_Final_Report_May_2008.pdf</a>)</p> <p>(2) Maricopa 5311 information (<a href="http://www.azdot.gov/MPD/Community_Grant_Services/Maricopa.asp">http://www.azdot.gov/MPD/Community_Grant_Services/Maricopa.asp</a>)</p> <p>Total coordinated public transit funding from all sources for the following entities in Pinal County:</p> <ul style="list-style-type: none"> <li>• Year 2009: Coolidge - \$506,578, Maricopa - \$788,405</li> <li>• Year 2010: Coolidge - \$662,200, Maricopa - \$802,585</li> </ul> <p>Total coordinated public transit funding from all sources for the following areas outside of the PM-10 nonattainment area within Maricopa County:</p> <ul style="list-style-type: none"> <li>• Year 2009: Salt River Pima-Maricopa Indian Community - \$380,361, RPTA Wickenburg Rte - \$315,645</li> <li>• Year 2010: Salt River Pima-Maricopa Indian Community - \$388,570 RPTA Wickenburg Rte - \$246,020</li> </ul>	<p>State</p>
<p><b>53. Repave or overlay paved roads with rubberized asphalt.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>ADOT repaved 13.03 miles of State Highways with rubberized asphalt pavement (7.82 miles more than the commitment).</p>	<p>State</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Unpaved Parking Lots</b>		
<p><b>25. Pave or stabilize existing unpaved parking lots.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Ordinance required by SB 1552. (A.R.S. § 9-500.04 A.6. &amp; A.7. and A.R.S. § 49-474.01 A.5. &amp; A.6.)</p> <p>Maricopa County revised parking lot provisions in Rule 310.01 (Fugitive Dust from Non-traditional Sources of Fugitive Dust) to synchronize with SB 1552 requirements. These rule revisions were adopted in March 2008.</p> <p>23 local governments have new or existing ordinances to require paving or stabilizing existing unpaved parking lots.</p> <p>266 Maricopa County and local government staff are enforcing ordinances to require paving or stabilizing existing unpaved parking lots.</p> <p>All inspectors in Maricopa County's Dust Control Section have been trained on inspecting unpaved parking lots as part of the universal inspector program described in Committed Measure #9. Currently, inspectors conduct monthly "Sweeps". A sweep is a one-day focused effort where all Dust Control Section inspectors conduct inspections of vacant lots and unpaved parking lots in Maricopa County. In 2008, 186 unpaved parking lot inspections and 5,005 vacant lot inspections were conducted. In 2009, 16 sweeps were conducted yielding 536 unpaved parking lot inspections and 12,013 inspections of vacant lots. In 2010, MCAQD conducted 256 unpaved parking lot inspections and 4,735 inspections of vacant lots. A total of 978 unpaved parking lot inspections and 21,753 vacant lot inspections were conducted during 2008, 2009, and 2010.</p> <p>Three local governments paved 13.96 acres of unpaved parking lots and unpaved driveways. Two local governments stabilized 13.32 acres of unpaved parking lots and unpaved driveways.</p> <p>One local government stabilized 9.40 acres of unpaved parking lots with turf.</p> <p>One local government paved/stabilized eight existing town-owned unpaved parking lots with a total surface area of 7.81 acres.</p>	<p>County, local governments</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Unpaved Roads, Alleys, and Shoulders</b>		
<p><b>26. Pave or stabilize existing public dirt roads and alleys.</b> Quantified for numeric credit as a contingency measure.</p>	<p>Plan requirements for paving or stabilizing public dirt roads and alleys were amended by SB 1552. (A.R.S. § 9-500.04 A.3. and A.R.S. § 49-474.01 A.4.)</p> <p>In March 2008, Maricopa County adopted Rule 310.01 revisions in regard to unpaved roads and alleys.</p> <p>Maricopa County and 20 local governments have developed or updated plans to pave or stabilize targeted public dirt roads and alleys.</p> <p>Maricopa County, Pinal County, Gila River Indian Community (GRIC) and local governments have implemented this measure for:</p> <p><u>Public Dirt Roads</u></p> <p>By paving 67.12 miles of public dirt roads (38.49 miles more than the commitments) and stabilizing 114.22 miles of public dirt roads (38.73 miles more than the commitments), with a total of 181.34 miles of public dirt roads paved or stabilized (77.22 miles more than the commitments).</p> <p><u>Dirt Alleys</u></p> <p>By paving 70.39 miles of dirt alleys (6.50 miles more than the commitments) and stabilizing 394.52 miles of dirt alleys (85.67 miles more than the commitments) with a total of 464.91 miles of dirt alleys paved or stabilized (92.17 miles more than the commitments).</p> <p>One local government improved 9 intersections by paving turn lanes and/or shoulders.</p>	<p>County, local governments</p>
<p><b>27. Limit speeds to 15 miles per hour on high traffic dirt roads.</b> Quantified for numeric credit as a contingency measure.</p>	<p>Maricopa County and 4 local governments have posted 36.86 miles of dirt roads and alleys with 15 mph (or less) speed limit signs (12.50 miles more than the commitments). In 2010, Maricopa County paved 1.19 miles of dirt roads that had been posted with 15 mph speed limit in 2009. Several jurisdictions report that all high traffic dirt roads have been paved.</p>	<p>County, local governments</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>28. Pave or stabilize unpaved shoulders.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Plan requirements to pave or stabilize unpaved shoulders were amended by SB 1552. (A.R.S. § 9-500.04 A.3. and A.R.S. § 49-474.01 A.4.)</p> <p>Maricopa County and 20 local governments have developed or updated plans to pave or stabilize unpaved shoulders on targeted arterials.</p> <p>ADOT, Maricopa County, and local governments implemented this measure by paving 253.20 curb miles of dirt shoulders (157.33 curb miles more than the commitments) and stabilizing 706.10 curb miles of dirt shoulders (409.46 curb miles more than the commitments).</p> <p>ADOT added 19.26 curb miles of curb and gutter (Note: These 19.26 curb miles are included in the paving of 253.20 curb miles of dirt shoulders.)</p> <p>One local government improved 9 intersections by paving turn lanes and/or shoulders.</p>	<p>County, State, local governments</p>
<p><b>43. MAG allocate \$5 million in FY 2007 MAG federal funds matched on a 50/50 basis by MAG member agencies for paving dirt roads and shoulder projects and that these projects be immediately submitted to MAG for consideration at the July meetings of the MAG Management Committee and Regional Council for an amendment to the Transportation Improvement Program. These funds would be on a nonsupplanting basis for new projects.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>\$5 million is programmed in the FY 2007-2011 MAG Transportation Improvement Program to fund 9 projects that pave dirt roads and shoulders in the PM-10 nonattainment area.</p>	<p>MAG, local governments</p>
<p><b>51. Conduct an inventory of dirt roads, alleys and estimated traffic counts.</b></p>	<p>The City of El Mirage developed a preliminary inventory of unpaved roads in its jurisdiction. In addition, other local governments, although not required, developed preliminary inventories of their unpaved roads.</p>	<p>local government</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Unpaved Surfaces</b>		
<b>29. Create a fund for paving and stabilizing in high pollution areas.</b>	Eleven of Maricopa County's settlement agreements for air quality violations included supplemental environmental projects.	County
<b>40. MAG member agencies reexamine existing ordinances to ensure that nonpermitted sources, such as unpaved parking, unpaved staging areas, unpaved roads, unpaved shoulders, vacant lots and open areas, receive priority attention.</b>	One local government re-examined existing ordinances to ensure non-permitted sources received priority attention.	MAG member agencies
<b>Vacant Lots</b>		
<b>30. Strengthen and increase enforcement of 310.01 for vacant lots.</b>  Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.	<p>Maricopa County hired a supervisor to oversee the vacant lot program. This staff position was also included in the data provided for Committed Measures #4 and #9.</p> <p>All MCAQD Dust Control Section inspectors have been trained on inspecting vacant lots as part of the universal inspector program described in Committed Measure #9 above. Currently, inspectors conduct monthly "Sweeps". A sweep is a one-day focused effort where all Dust Control Section inspectors conduct inspections of vacant lots and unpaved parking lots throughout Maricopa County.</p> <p>Maricopa County conducted a total of 21,753 vacant lot inspections.</p> <p>Maricopa County now has a contract in place for stabilization of vacant lots and also for on-call street sweeping.</p>	County

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>31. Restrict vehicular use and parking on vacant lots.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Ordinance required by SB 1552. (A.R.S. § 9-500.04 A.8. and A.R.S. § 49-474.01 A.7.)</p> <p>In February 2008, Maricopa County adopted the P-27 Vehicle Parking and Use on Unstabilized Vacant Lots Ordinance and in 2010 revised the ordinance to provide more flexibility in adjudicating cases.</p> <p>In addition, 23 local governments have new or existing ordinances to prohibit vehicle trespass on vacant land.</p>	<p>County, local governments</p>
<p><b>32. Enhanced enforcement of trespass ordinances and codes.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>In February 2008, Maricopa County adopted the P-28 Off-Road Vehicle Use in Unincorporated Areas of Maricopa County and the P-27 Vehicle Parking and Use on Unstabilized Vacant Lots ordinances and in 2010 revised the ordinances to provide more flexibility in adjudicating cases.</p> <p>Maricopa County will combine the enforcement of the P-27 Vehicle Parking and Use Ordinance with the Vacant Lot Sweep Program. Currently, field staff continue outreach (distribution of fact sheets on parked vehicles) while the penalty structure of the ordinance is being updated. The details of the enforcement component are also being integrated into Maricopa County's "Accela" software, which will allow for a smoother transition of the program.</p> <p>In addition, 18 local governments report increased enforcement of vehicle trespass ordinances and codes for vacant lots.</p> <p>In 2010, Maricopa County issued 9 notices to correct (NTC's) and 8 notices of violations (NOV's) in relation to P-27 type situations. One local government issued 29 NOVs: Vacant Lot Parking - 15, Dust Generating Activities - 8, Unpaved Parking Lots - 5, and PM-10 Trackout - 1.</p>	<p>County, local governments</p>

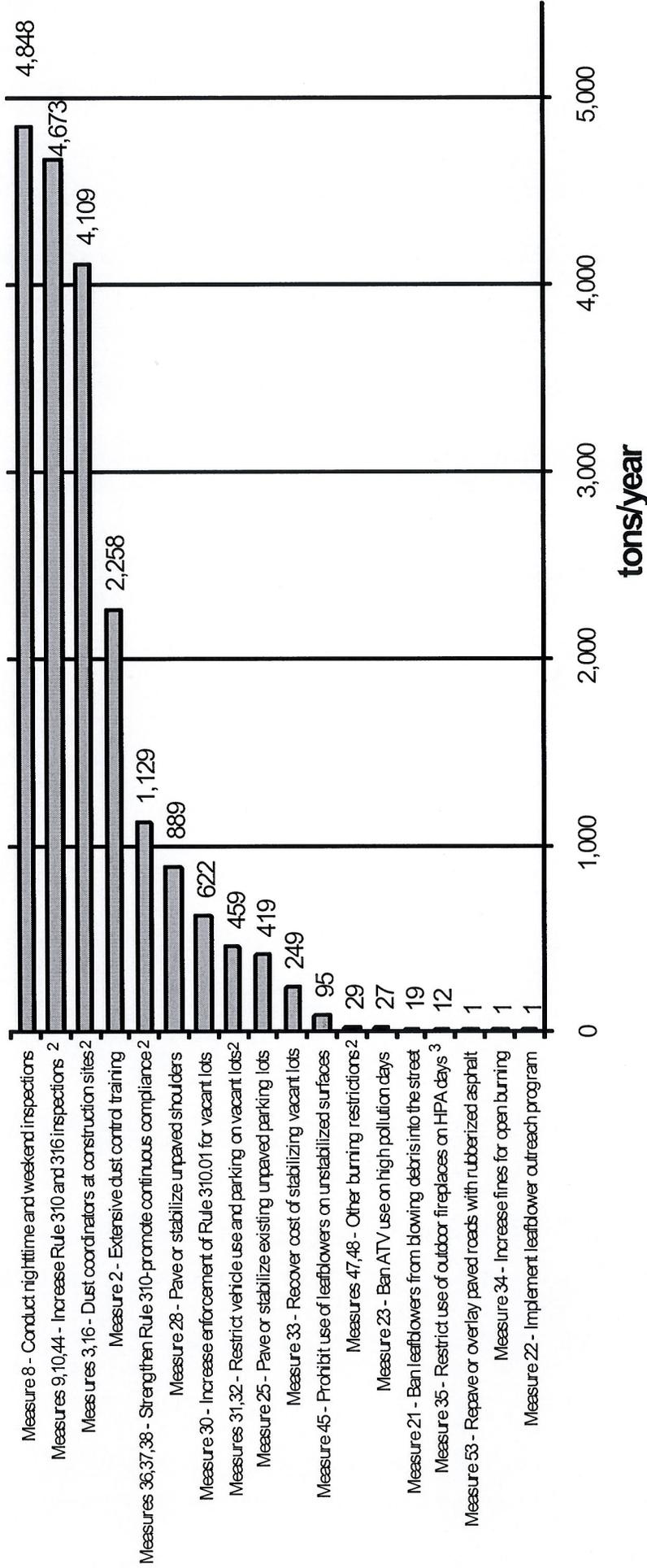
COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>33. Ability to assess liens on parcels to cover the costs of stabilizing them (Recover costs of stabilizing vacant lots).</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>SB 1552 requires rule revisions for stabilization of disturbed surfaces of vacant lots. (A.R.S. § 49-474.01 A.11.)</p> <p>Maricopa County adopted Rule 310.01 revisions in March 2008 to incorporate A.R.S. § 49-474.01 A.11. to allow the County to recover stabilization costs through the penalty process.</p>	<p>County</p>
<b>Open Burning / Woodburning</b>		
<p><b>34. Increase fines for open burning.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>SB 1552 requires increasing the fines for unlawful open burning. (A.R.S. § 11-871 D.4. and A.R.S. § 49-501 G.)</p> <p>In March 2008, Maricopa County revised the P-26 Residential Woodburning Restriction Ordinance to increase the civil penalty to \$250 for the fourth or any subsequent violation of the ordinance in accordance with Senate Bill 1552.</p> <p>Maricopa County responded to 824 illegal open burning complaints and 216 wrongful fireplace use complaints which resulted in 27 documented violations of Rule 314 (Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments) and 30 warnings for violations of Ordinance P-26 (Residential Woodburning Restriction Ordinance).</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<p><b>35. Restrict use of outdoor fireplaces and pits and ambience fireplaces in the hospitality industry.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>SB 1552 requires Maricopa County to prohibit use of wood-burning chimineas, outdoor fire pits, and similar outdoor fires on County No-Burn Days. (A.R.S. § 49-501 F.)</p> <p>In March 2008, Maricopa County adopted revisions to P-26 (Residential Woodburning Restriction Ordinance) and Rule 314 (Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments) to restrict use of outdoor fireplaces and pits and ambience fireplaces in the hospitality industry.</p>	<p>County</p>
<p><b>47. Ban open burning during the ozone season.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Open burning ban from May 1 through September 30 each year required by SB 1552. (A.R.S. § 49-501 A.2.)</p> <p>In March 2008, Maricopa County implemented an open burning ban during the ozone season by adding these requirements to Rule 314 (Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments) and to P-26 (Residential Woodburning Restriction Ordinance).</p>	<p>County</p>
<p><b>48. Require residential woodburning ordinances to include no burn restrictions on high pollution advisory days.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Revision of County ordinance required by SB 1552. (A.R.S. § 11-871 B.)</p> <p>The "no burn restrictions on HPA days" was already a requirement in Maricopa County's Residential Woodburning Restriction ordinance (P-26 ordinance).</p> <p>Note: Maricopa County revisions to the Residential Woodburning Ordinance, adopted in March 2008, pertained to Committed Measure #35.</p> <p>See Committed Measure #34 for data on complaints received by the County in regard to open burning and wrongful fireplace use.</p>	<p>County</p>

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
<b>Agriculture</b>		
<p><b>41. Forward to the Governor’s Agricultural Best Management Practices Committee that cessation of tilling be required on high wind days and that agricultural best management practices be required in existing Area A.</b></p>	<p>Agricultural Best Management Practices required in Area A by SB 1552. (A.R.S. § 49-457 H. &amp; N.6. and A.R.S. § 49-542 Sec. 20.)</p> <p>On September 25, 2007, the Governor’s Agricultural Best Management Practices (BMP) Committee revised its rule to double the number of BMPs that farmers must implement, added 5 BMP choices (including cessation of tilling on High Pollution Advisory Days), and expanded the area for BMPs.</p> <p>Arizona State Rules 18-2-610 and 611 were revised, effective November 14, 2007, to comply with Senate Bill (SB) 1552. The Legislature adopted a requirement in SB 1552 that expanded the regulated area for Agricultural BMPs to include the portion of Area A in Maricopa County and increased the number of required Agricultural BMPs from one to two from each category by December 31, 2007.</p>	State
<p><b>42. The Arizona State Legislature provide funding to the Arizona Department of Environmental Quality for four agriculture dust compliance officers for a total of five inspectors.</b></p>	<p>ADEQ indicated that expenditure authority for these four positions is no longer available to ADEQ.</p> <p>In 2010, Arizona Department of Agriculture’s Agricultural Best Management Compliance Assistance made 107 on-site visits, drafted 4,148 consultation letters and participated in 12 events for educational outreach and training.</p>	State
<p><b>50. Require two agricultural best management practices.</b></p> <p>Quantified for numeric credit as a contingency measure.</p>	<p>Required by SB 1552. (A.R.S. § 49-457 H. &amp; N.6. and A.R.S. § 49-542 Sec. 20.)</p> <p>Arizona State Rules 18-2-610 and 611 were revised, effective November 14, 2007, to comply with Senate Bill (SB) 1552.</p> <p>The Legislature adopted a requirement in SB 1552 that expanded the regulated area for Agricultural BMPs to include the portion of Area A in Maricopa County and increased the number of required Agricultural BMPs from one to two from each category by December 31, 2007.</p>	State

COMMITTED MEASURE IN THE MAG 2007 FIVE PERCENT PLAN FOR PM-10	2008, 2009, and 2010 IMPLEMENTATION STATUS	IMPLEMENTING ENTITY
All Sources		
<p><b>44. Maricopa County should increase consistent enforcement in areas where PM-10 violations continue to occur, along with efforts throughout the region. When an area continually experiences higher PM-10 concentrations than other areas, increased enforcement in areas experiencing high monitor readings is needed to protect public health.</b></p> <p>Quantified for numeric credit to meet the five percent per year target and demonstrate attainment.</p>	<p>Maricopa County has increased consistent enforcement in areas where PM-10 violations continue to occur.</p> <p>In March 2008, Maricopa County revised Rule 280 (Fees) to cover increased staffing levels for the MCAQD as a result of Maricopa County's Five Percent Plan commitments.</p> <p>In 2009, the MCAQD Dust Control Section implemented the "Monitor Project". The focus of the Monitor Project was to concentrate inspectors' efforts within a 2-mile radius of several MCAQD monitoring stations (W. 43rd Ave., Durango, South Phoenix, Higley, Buckeye and Zuni Hills). Inspectors conducted inspections of all permitted sites within the 2-mile radius as well as monitored other dust generating activity. The frequency of inspections differed per monitoring station and varied from 3 inspections per week to one inspection per week.</p>	County

**Figure 1**  
**Reductions in 2010 for Committed Control Measures**  
**in the Five Percent Plan for PM-10<sup>1</sup>**

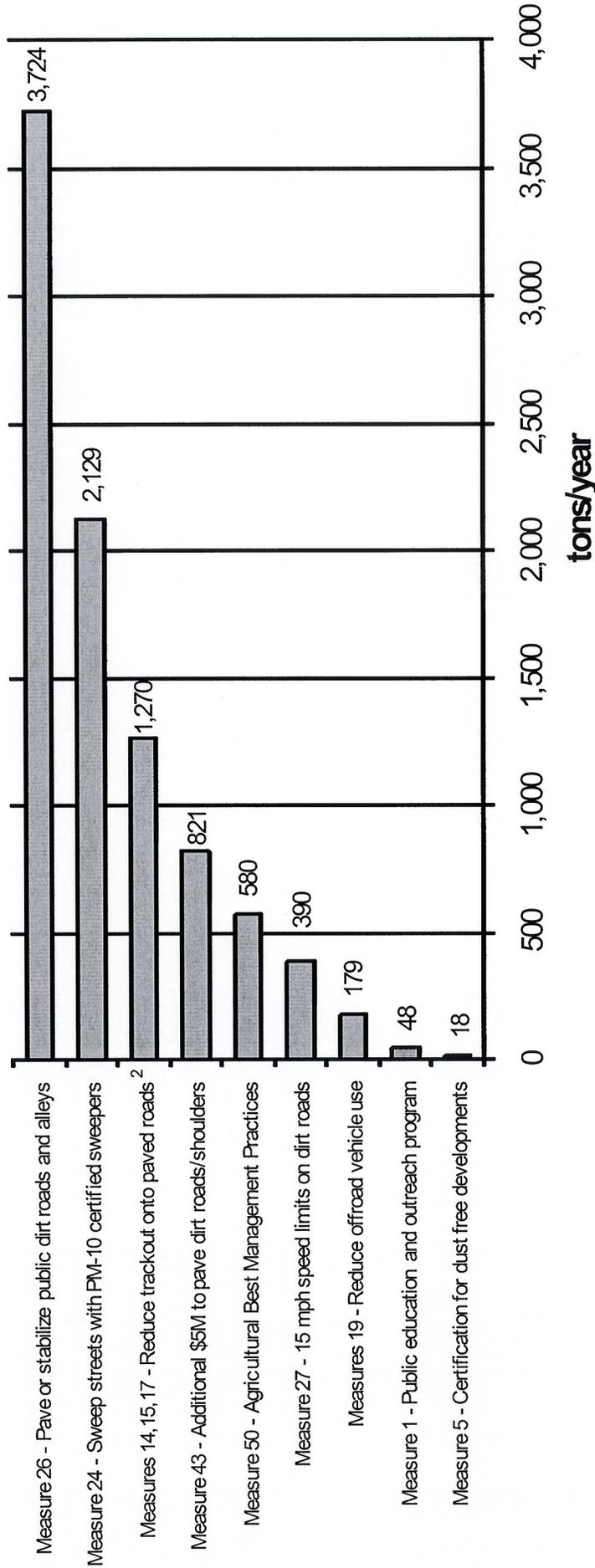


<sup>1</sup>Committed measures quantified for numeric credit to meet the five percent per year target and demonstrate attainment.

<sup>2</sup>In these cases, the emission reductions represent the combined impact of multiple, reinforcing measures.

<sup>3</sup>HPA days = high pollution advisory days

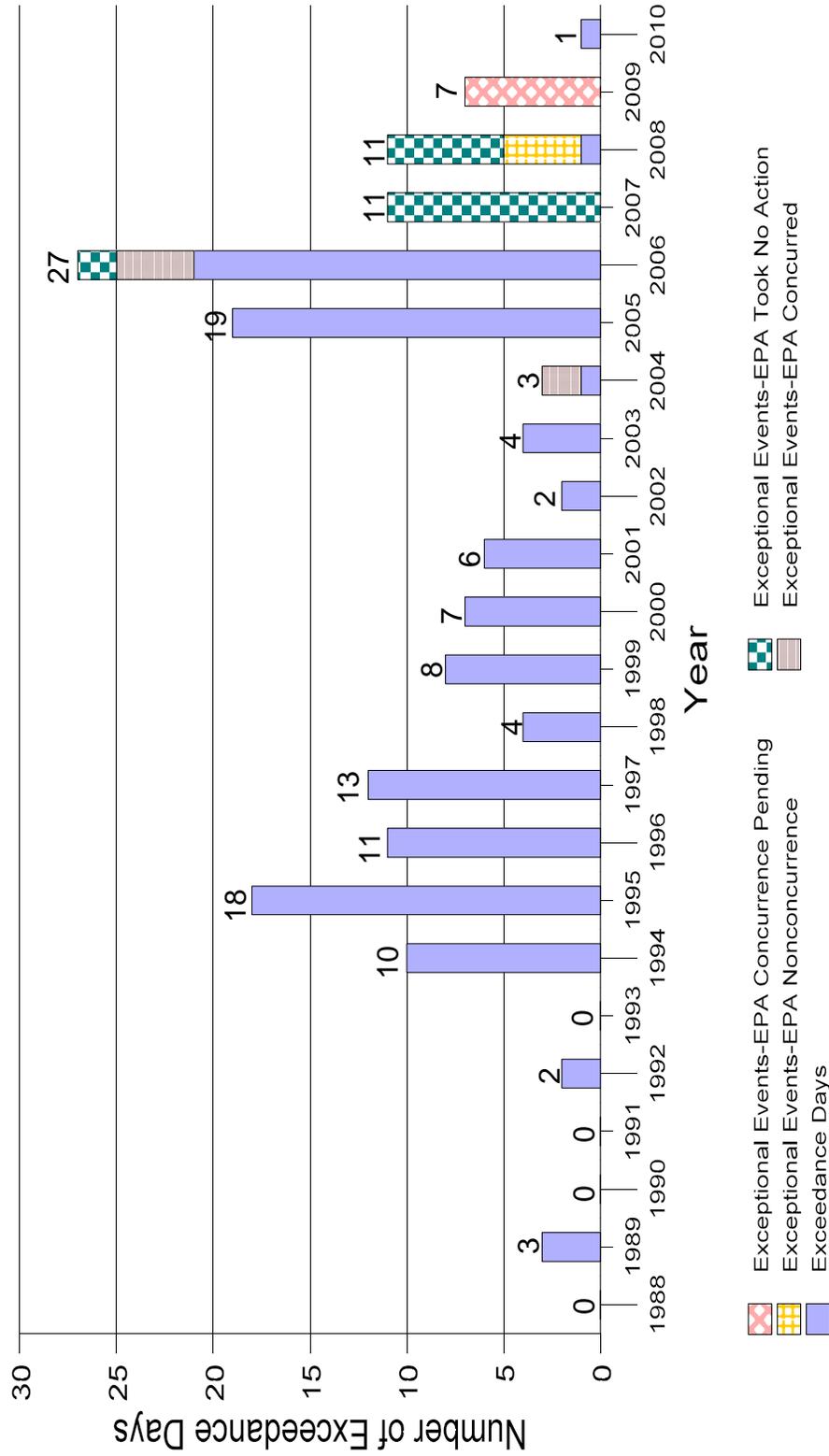
**Figure 2**  
**Reductions in 2010 for Contingency Measures**  
**in the Five Percent Plan for PM-10<sup>1</sup>**



<sup>1</sup>Committed measures quantified for numeric credit as contingency measures.

<sup>2</sup>For "Reduce trackout onto paved roads," the emission reduction represents the combined impact of Measures 14, 15 and 17.

**Figure 3**  
**Number of 24-Hour PM-10 Exceedance Days**



Notes: -The Arizona Department of Environmental Quality began flagging exceptional events in 2004.

-The chart includes exceedance days at the Buckeye monitor, which is located outside the PM-10 nonattainment area.

-On July 19, 2007, the exceedance at the Buckeye monitor was not associated with the exceptional event that also occurred on that day.

Sources: 1988 - 1997 - Revised MAG 1999 Serious Area Particulate Plan for PM-10 for the Maricopa County Nonattainment Area, February 2000.  
 1998 - 2010 - EPA Air Quality System.

**ATTACHMENT**

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

**EXECUTIVE SUMMARY**

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

**EXECUTIVE SUMMARY**



## **MAG 2007 FIVE PERCENT PLAN FOR PM-10 EXECUTIVE SUMMARY**

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

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

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

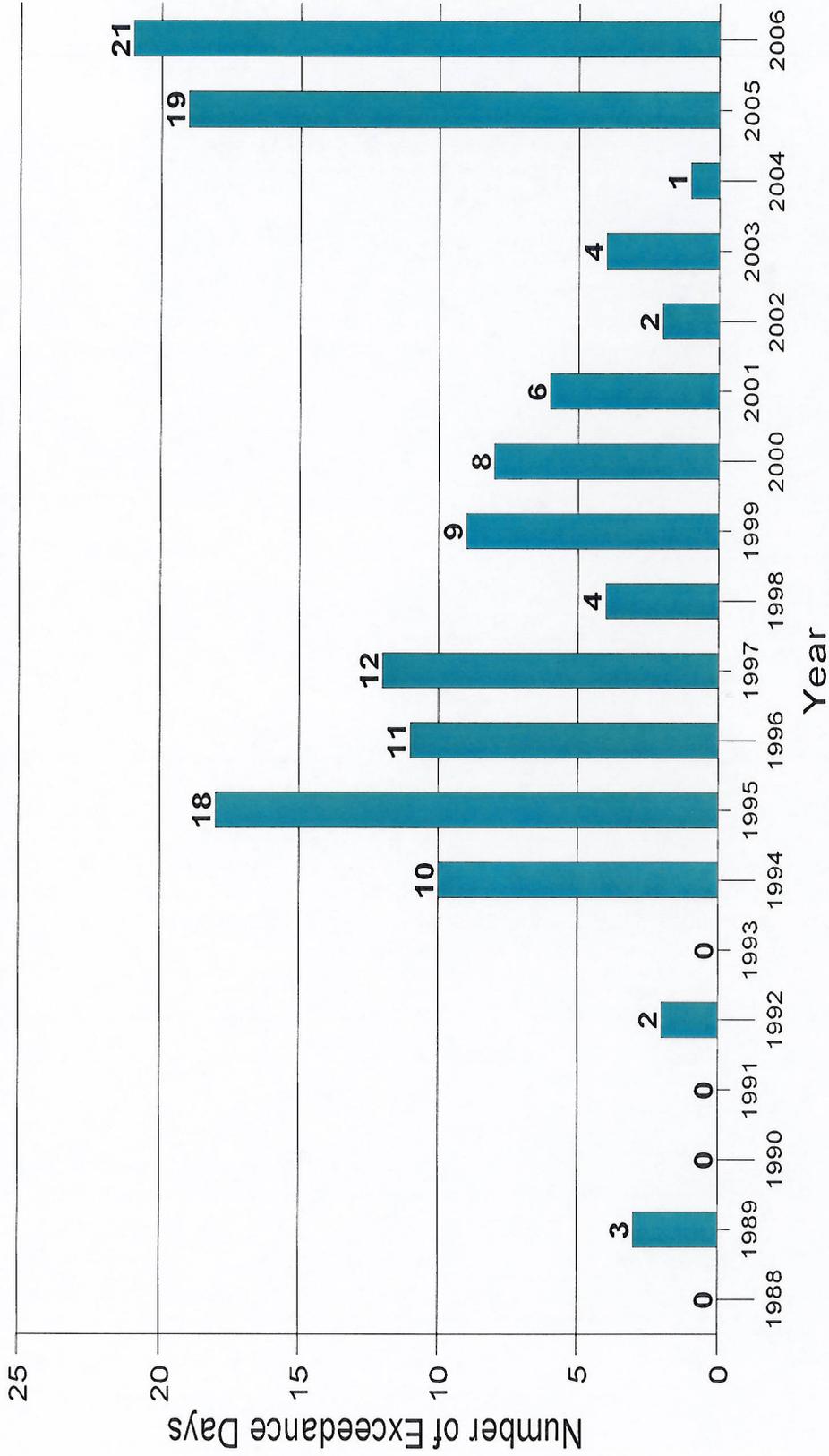
In order to be in attainment, the region needed three years of clean data at the monitors for 2004, 2005, and 2006. However, there were numerous exceedances of the 24-hour standard in 2005 and 2006. On June 6, 2007, EPA published a final notice with its findings that the Maricopa County nonattainment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

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

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

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

**FIGURE ES-1**  
**NUMBER OF 24-HOUR PM-10 EXCEEDANCE DAYS**



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

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

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

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

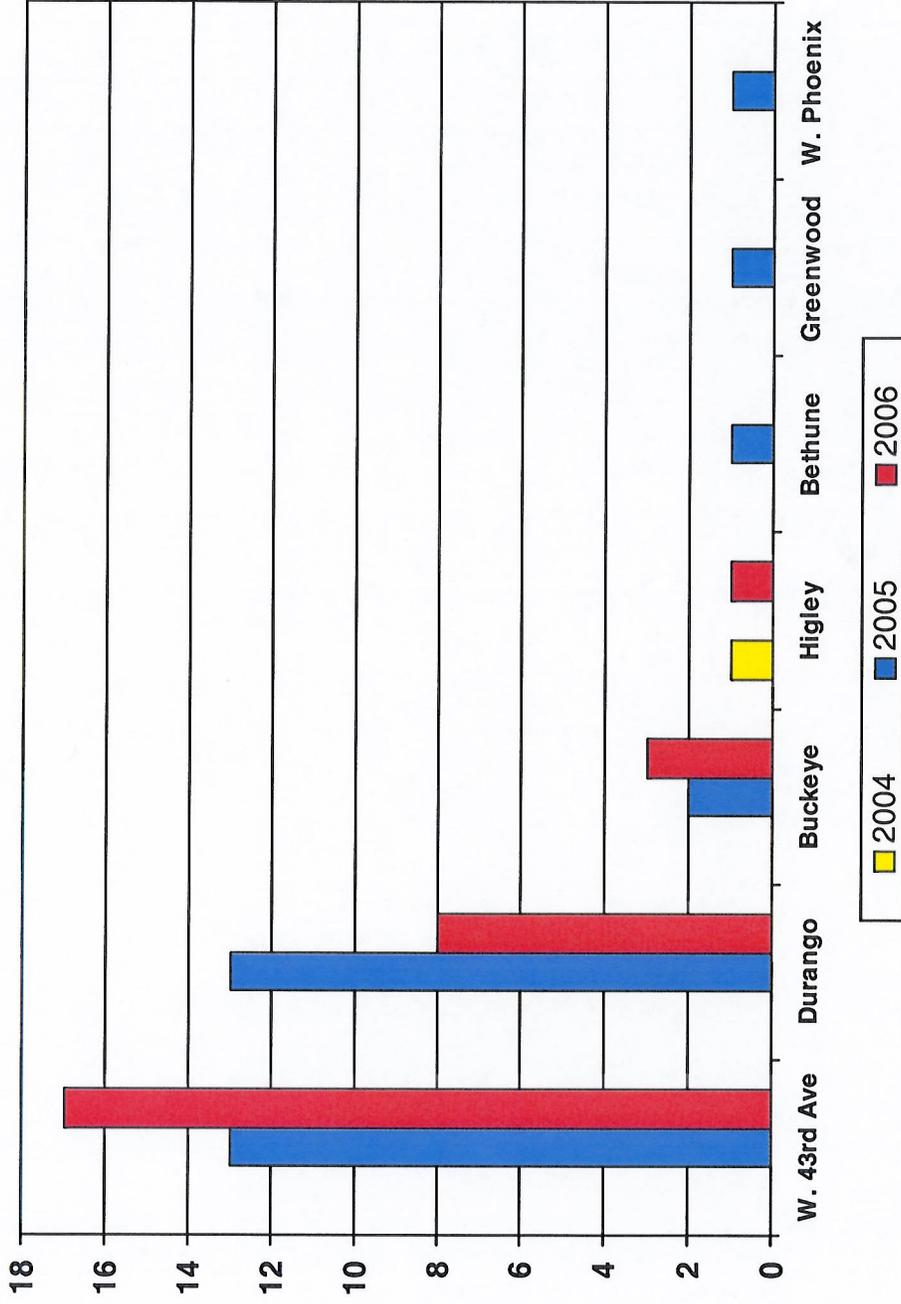
The MAG PM-10 Source Attribution and Deposition Study was another major study which provided information for the evaluation of control measures. The study was designed to identify the sources of emissions contributing to violations of the PM-10 standard at monitors in the nonattainment area during stagnant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

1. Where are the specific source areas and/or sources in the Salt River region that contribute to the particulate matter (PM) loading at the Durango Complex and West 43<sup>rd</sup> monitoring sites?
2. To obtain useful results from models such as AERMOD, can the regional particle size distribution be characterized on an area basis (i.e., is there an area of uniformity that can be generalized?)
3. What are the causes of heavy PM loading during the morning hours at the Durango and West 43<sup>rd</sup> monitors? Are the diurnal variations of PM-10 and peaks due to reentrainment of paved road dust, or due to other activities in the surrounding areas that are coincident with traffic peaks?

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

FIGURE ES-2

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



- Notes: 1. Exceedances are based on data from the EPA Air Quality System (AQS). Exceedances due to natural events have been removed from the AQS by EPA.  
 2. The exceedance at the Bethune, Greenwood, and W. Phoenix monitors occurred on 12/12/05.

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

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

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

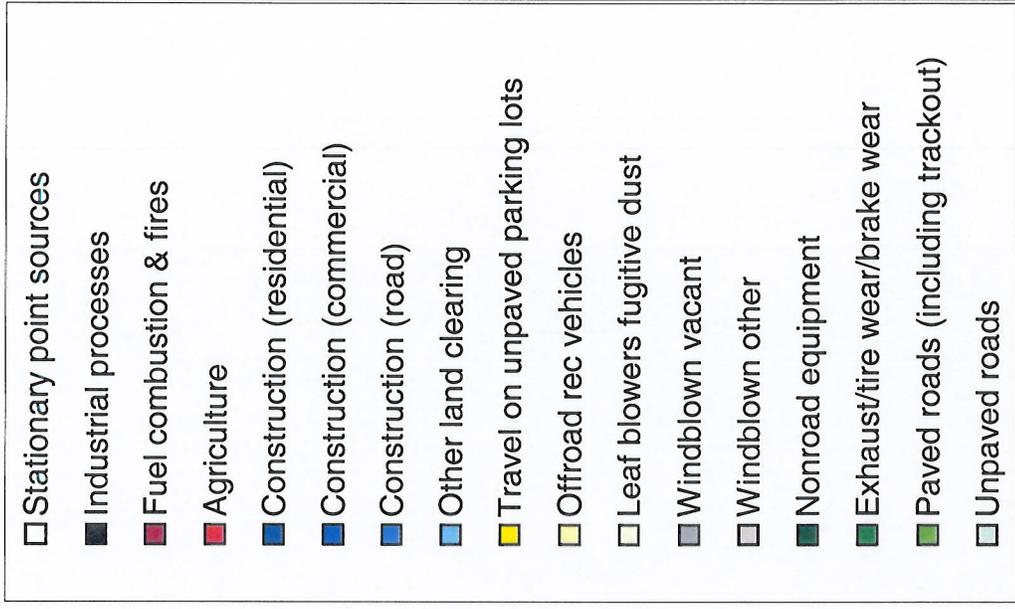
The emissions in the 2005 Periodic Emissions Inventory for PM-10 were projected to 2007, 2008, 2009, and 2010. The total controlled emissions of 97,436 tons in the 2007 projected inventory were used to calculate the five percent reduction target in emissions (see Figure ES-4). This number was multiplied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

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

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

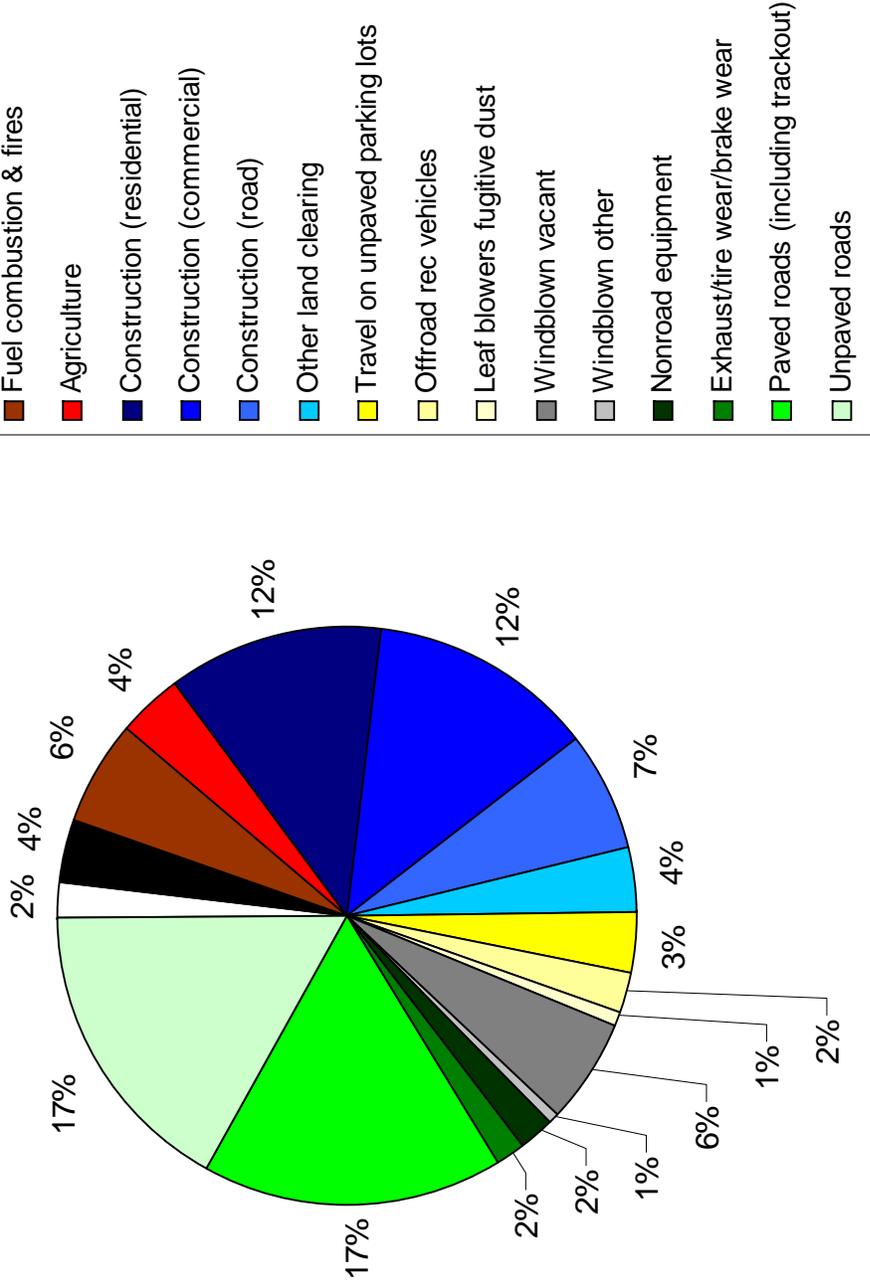
FIGURE ES-3

**2005 PM-10 Emissions  
in the PM-10 Nonattainment Area  
Total = 84,753 tons/year**



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

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



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

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

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

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

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

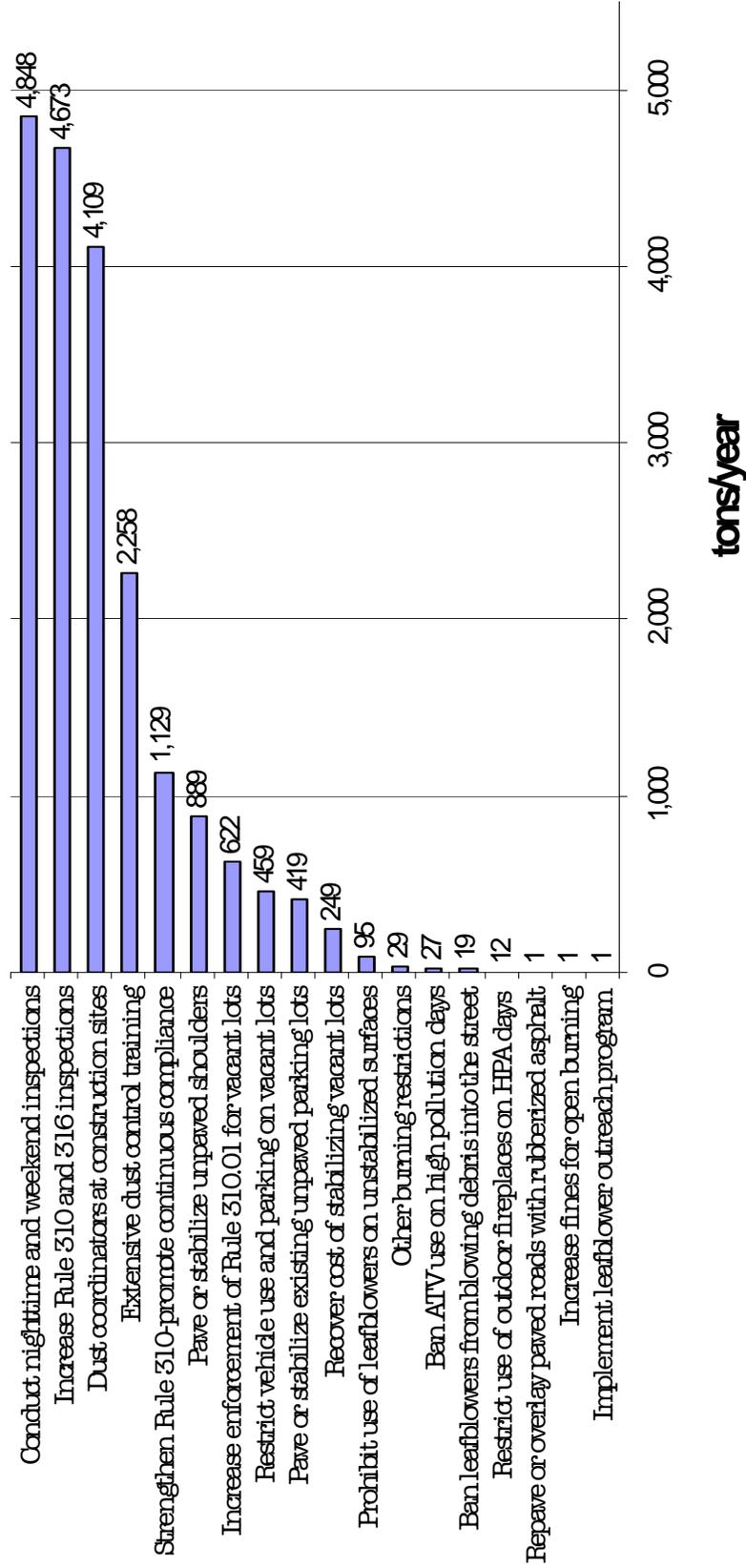
EPA guidance indicates that contingency measures should provide emissions reductions equivalent to one year of reasonable further progress. The reasonable further progress requirements for Serious PM-10 nonattainment areas are included in Section 189(c) of the Clean Air Act. For the Five Percent Plan,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

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

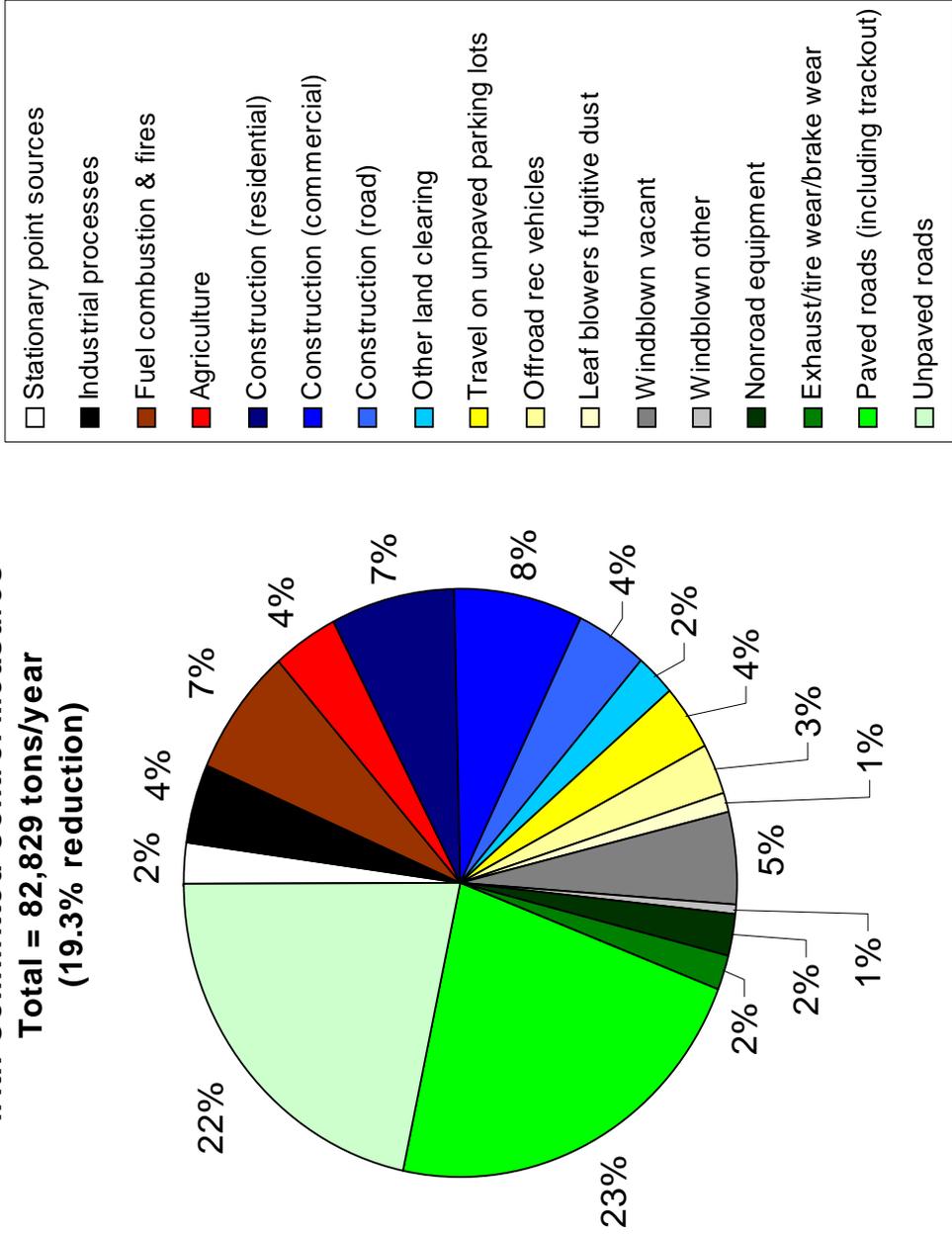
The total 2010 PM-10 emissions with committed control measures and committed contingency measures are 73,670 tons (see Figure ES-8). Together, these measures reduce base case PM-10 emissions by 28.2 percent in 2010.

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

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



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



## TABLE ES-1

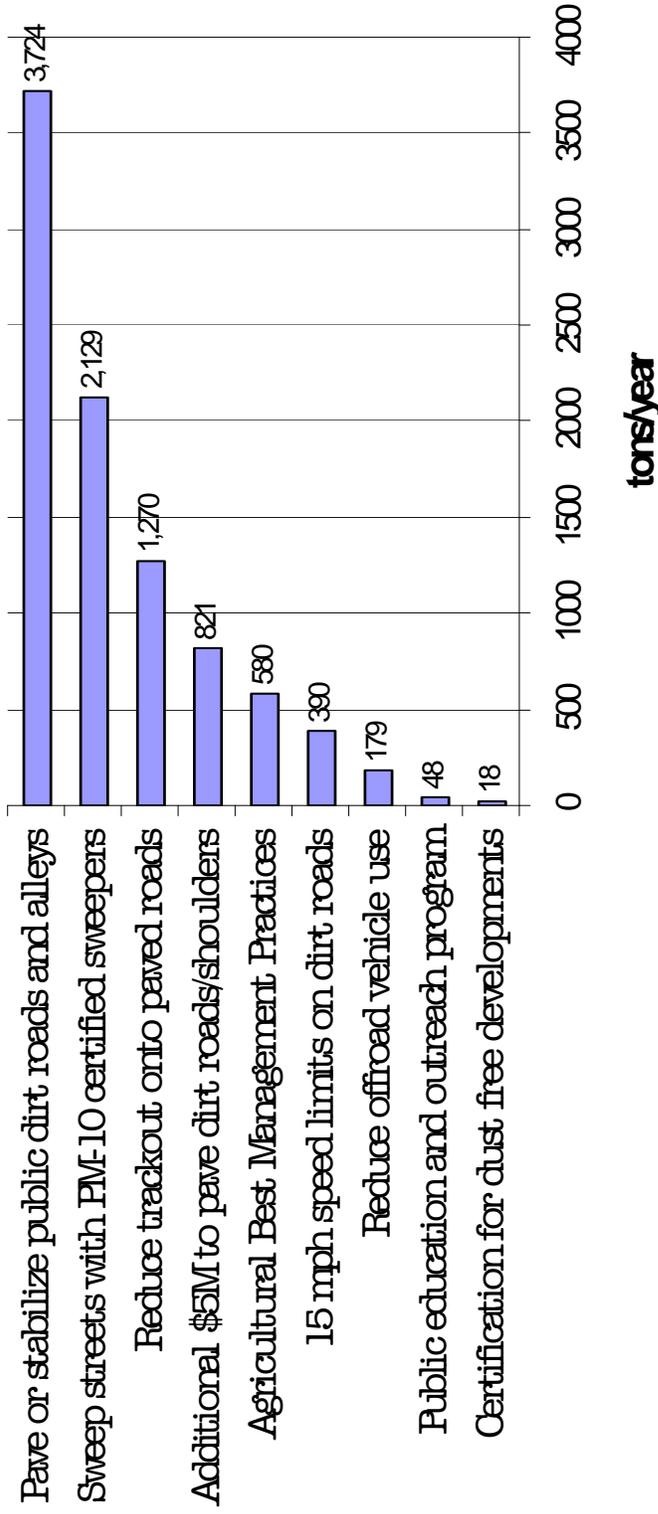
### **EMISSIONS REDUCTIONS FOR COMMITTED CONTROL MEASURES QUANTIFIED TO MODEL ATTAINMENT AND MEET THE FIVE PERCENT REDUCTION REQUIREMENT**

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

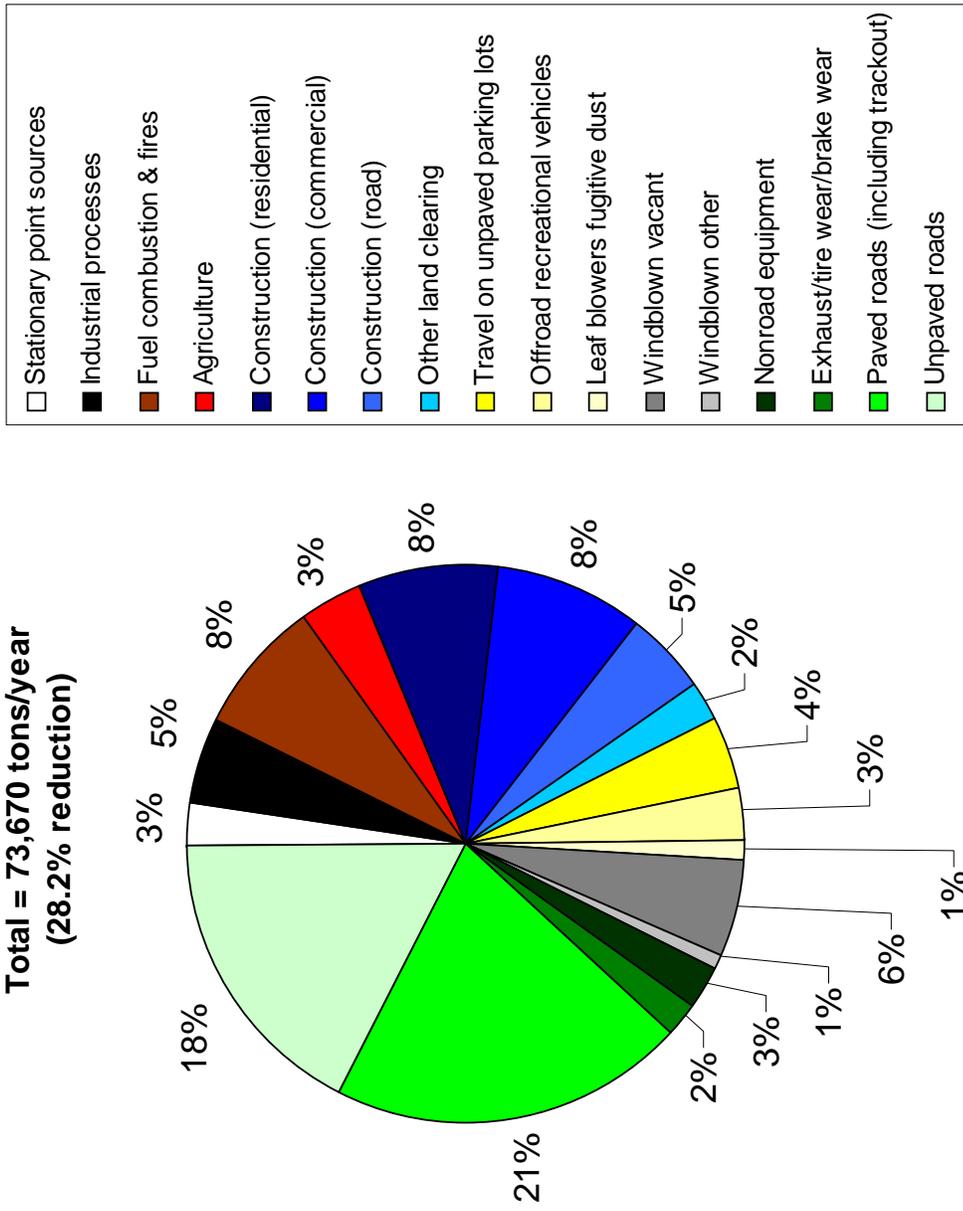
### **EMISSIONS REDUCTIONS FOR COMMITTED CONTINGENCY MEASURES QUANTIFIED TO MEET THE CONTINGENCY MEASURE REQUIREMENT**

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

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



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



(5) Durum wheat, Soft Red Winter wheat, and Unclassed wheat in the class Hard White wheat.

3. Amend § 810.2204 by revising paragraph (a) to read as follows:

**§ 810.2204 Grades and grade requirements for wheat.**

(a) Grades and grade requirements for all classes of wheat, except Mixed wheat.

\* \* \* \* \*

**GRADES AND GRADE REQUIREMENTS**

Grading factors	Grades U.S. Nos.				
	1	2	3	4	5
<b>Minimum pound limits of</b>					
Test weight per bushel:					
Hard Red Spring wheat or White Club wheat .....	58.0	57.0	55.0	53.0	50.0
All other classes and subclasses .....	60.0	58.0	56.0	54.0	51.0
<b>Maximum percent limits of</b>					
Defects:					
Damaged kernels					
Heat (part of total) .....	0.2	0.2	0.5	1.0	3.0
Total .....	2.0	4.0	7.0	10.0	15.0
Foreign material .....	0.4	0.7	1.3	3.0	5.0
Shrunken and broken kernels .....	2.0	4.0	8.0	12.0	20.0
Total <sup>1</sup> .....	3.0	5.0	8.0	12.0	20.0
Wheat of other classes <sup>2</sup> .....	1.0	2.0	3.0	10.0	10.0
Contrasting classes .....	3.0	5.0	10.0	10.0	10.0
Total <sup>3</sup> .....	0.1	0.1	0.1	0.1	0.1
Stones					
<b>Maximum count limits of</b>					
Other material in one kilogram:					
Animal filth .....	1	1	1	1	1
Castor beans .....	1	1	1	1	1
Crotalaria seeds .....	2	2	2	2	2
Glass .....	0	0	0	0	0
Stones .....	3	3	3	3	3
Unknown foreign substances .....	3	3	3	3	3
Total <sup>4</sup> .....	4	4	4	4	4
Insect-damaged kernels in 100 grams .....	31	31	31	31	31

U.S. Sample grade is Wheat that:

- (a) Does not meet the requirements for U.S. Nos. 1, 2, 3, 4, or 5; or
- (b) Has a musty, sour, or commercially objectionable foreign odor (except smut or garlic odor) or
- (c) Is heating or of distinctly low quality.

<sup>1</sup> Includes damaged kernels (total), foreign material, shrunken and broken kernels.  
<sup>2</sup> Unclassed wheat of any grade may contain not more than 10.0 percent of wheat of other classes.  
<sup>3</sup> Includes contrasting classes.  
<sup>4</sup> Includes any combination of animal filth, castor beans, crotalaria seeds, glass, stones, or unknown foreign substance.

\* \* \* \* \*

Alan R. Christian,  
*Acting Administrator, Grain Inspection,  
 Packers and Stockyards Administration.*  
 [FR Doc. 2012-8663 Filed 4-10-12; 8:45 am]  
 BILLING CODE 3410-KD-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

[EPA-R09-OAR-2012-0253; FRL-9658-6]

**Approval and Promulgation of Air Quality Implementation Plan for 1997 8-Hour Ozone Standard; Arizona**

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

**ACTION:** Proposed rule.

**SUMMARY:** EPA is proposing to approve revisions to the Arizona state implementation plan (SIP) that demonstrate attainment of the 1997 8-hour ozone national ambient air quality standards in the Phoenix-Mesa

nonattainment area by June 15, 2009. These SIP revisions are the 2007 Ozone Plan developed by the Maricopa Association of Governments and adopted and submitted to EPA by the Arizona Department of Environmental Quality on June 13, 2007. EPA is proposing to approve the 2007 Ozone Plan based on our determination that the plan contains all the provisions required for areas classified as nonattainment under Part D, Subpart 1 of the Clean Air Act, including the demonstration of reasonably available control measures (RACM), reasonable further progress (RFP), emission inventories, transportation conformity motor vehicle emission budgets for 2008, and contingency measures to be

implemented if the Phoenix-Mesa nonattainment area fails to attain by June 15, 2009.

**DATES:** Written comments must be received on or before May 11, 2012.

**ADDRESSES:** Submit comments, identified by docket number EPA-R09-OAR-2012-0253, by one of the following methods:

- *Federal e-Rulemaking Portal:*

[www.regulations.gov](http://www.regulations.gov). Follow the on-line instructions.

- *Email:* [lee.anita@epa.gov](mailto:lee.anita@epa.gov).

• *Mail or deliver:* Marty Robin, Office of Air Planning (AIR-2), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105.

**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 email. The [www.regulations.gov](http://www.regulations.gov) Web site 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 email directly to EPA, your email address will be automatically captured and included as part of the public comment. If EPA cannot read your comments 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 on the [www.regulations.gov](http://www.regulations.gov) Web site and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California 94105. While all documents in the docket are listed in the index, some documents may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available at 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 below. Copies of the SIP materials are also available for inspection at the following location:

- Arizona Department of Environmental Quality, 1110 W. Washington Street, First Floor, Phoenix, AZ 85007, Phone: (602) 771-2217.

The SIP materials are also electronically available at: <http://>

[www.azmag.gov/Projects/Project.asp?CMSID2=1120](http://www.azmag.gov/Projects/Project.asp?CMSID2=1120).

**FOR FURTHER INFORMATION CONTACT:** Anita Lee, Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region IX, (415) 972-3958, [lee.anita@epa.gov](mailto:lee.anita@epa.gov).

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**I. The 1997 8-Hour Ozone Standard and the Phoenix-Mesa Ozone Nonattainment Area**

**A. Background on the 1997 8-Hour Ozone NAAQS**

Ground-level ozone pollution is formed in the atmosphere from the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) in the presence of sunlight. These two pollutants, referred to as ozone precursors, are emitted by many types of pollution sources including on- and off-road motor vehicles and engines, power plants and industrial facilities, and smaller area sources such as lawn and garden equipment and paints.

Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and adults with lung disease. Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma or other lung diseases. Ozone exposure also has been associated with

increased susceptibility to respiratory infections, medication use, doctor visits, and emergency department visits and hospital admissions for individuals with lung disease. Ozone exposure also increases the risk of premature death from heart or lung disease. Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors, which increases exposure. See "Fact Sheet, Proposal to Revise the National Ambient Air Quality Standards for Ozone", January 6, 2010 and 75 FR 2938 (January 19, 2010).

On July 18, 1997, EPA revised the primary and secondary national ambient air quality standards (NAAQS or standard) for ozone to replace the existing 1-hour ozone standard of 0.12 parts per million (ppm) with an 8-hour standard of 0.08 ppm<sup>1</sup> (62 FR 33856). EPA revised the ozone standard after considering substantial evidence from numerous health studies demonstrating that serious health effects are associated with exposures to ozone concentrations above the levels of these revised standards.

**B. The Phoenix-Mesa 8-Hour Ozone Nonattainment Area**

Following promulgation of a new or revised NAAQS, EPA is required by Clean Air Act (CAA) section 107(d) to designate areas throughout the nation as attaining or not attaining the NAAQS. Under the implementation rule for the 1997 8-hour ozone standard, EPA designated certain areas as nonattainment under title I, part D, subpart 1 of the CAA (subpart 1) if the area's 1-hour ozone design value was above the level of the standard but below 0.121 ppm. On April 15, 2004, EPA designated Phoenix-Mesa as "Subpart 1" nonattainment for the 1997 8-hour ozone standard under CAA section 172. See 69 FR 23858 (April 30, 2004) and 40 CFR 81.303. The designation became effective on June 15, 2004. Under part D, subpart 1 of the Act, states must submit plans to come into attainment within 3 years of the effective date of the nonattainment designation, and must attain the standard as expeditiously as practicable, but no later than 5 years after the effective date of the designation. Arizona Department of Environmental Quality (ADEQ) submitted the 2007 Attainment Plan to EPA on June 13,

<sup>1</sup> In March 2008, EPA completed another review of the primary and secondary ozone standards and further tightened the standards by lowering the level for both to 0.075 ppm (73 FR 16436, Mar. 27, 2008).

2007<sup>2</sup> to attain the 1997 8-hour ozone standard by the attainment date of June 15, 2009, which is 5 years after the effective date of the area's designation as nonattainment.<sup>3</sup>

In June 2007, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit Court) vacated the portion of the 2004 ozone implementation rule that allowed areas to be classified under subpart 1. See *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir. 2006), reh'g denied 489 F.3d 1245 (SCAQMD) (vacating certain elements of EPA's Phase 1 ozone implementation rule). On January 16, 2009 (74 FR 2936), EPA published a proposed rule to address, among other issues, the DC Circuit Court vacatur of the classification system that EPA used to designate a subset of initial 1997 8-hour ozone nonattainment areas under subpart 1. In that rulemaking, EPA proposed that all areas designated nonattainment for the 1997 8-hour ozone NAAQS under subpart 1 would be classified as subpart 2 areas (hereafter referred to as the Subpart 1/Subpart 2 Rulemaking). The Phoenix-Mesa area is included in the areas that would be classified under subpart 2 if EPA's proposal is finalized. EPA has not yet taken final action on the Subpart 1/Subpart 2 Rulemaking. Following completion of the Subpart 1/Subpart 2 Rulemaking, EPA will address in a future rulemaking any additional requirements that become applicable to Phoenix-Mesa, if any, as a result of its classification under subpart 2. If, after Phoenix-Mesa is classified under subpart 2, EPA determines in a future rulemaking that the area is in attainment with the 1997 8-hour ozone standard, then the obligation to submit certain planning SIPs related to attainment of the 1997 8-hour ozone standard pursuant to its subpart 2 classification would be suspended in accordance with 40 CFR 51.918.

The Phoenix-Mesa nonattainment area is located in the central portion of Arizona and encompasses 4,880 square

<sup>2</sup> Letter from Stephen A. Owens, Director, Arizona Department of Environmental Quality to Wayne Nastri, Regional Administrator, U.S. Environmental Protection Agency, Region IX, dated June 13, 2007, plus three enclosures, including the "Eight-Hour Ozone Plan for the Maricopa Nonattainment Area, dated June 2007" and Appendices Volumes one and two, dated June 2007.

<sup>3</sup> On March 23, 2009, ADEQ submitted to EPA a redesignation request and maintenance plan for Phoenix-Mesa for the 1997 8-hour ozone standard based on ambient ozone monitoring data for the 2006–2008 period. EPA has not yet acted on this submittal. The maintenance plan and redesignation request are available from the Maricopa Association of Governments at: <http://www.azmag.gov/Projects/Project.asp?CMSID2=1120&MID=Environmental%20Programs>.

miles, including the urban portions of Maricopa and Pinal Counties, the Fort McDowell Yavapai Nation and the Salt River-Pima Maricopa Indian Community. For a precise description of the geographic boundaries of the Phoenix-Mesa nonattainment area, see 40 CFR 81.303. The Maricopa Association of Governments (MAG) is the agency with primary responsibility for developing the plan to attain the 1997 8-hour ozone standard for Phoenix-Mesa.

Ambient 8-hour ozone concentrations in Phoenix-Mesa vary depending on location and season, with the highest values generally occurring in May–September, in north Phoenix or the air quality monitors located in the mountainous northeastern region of the Phoenix-Mesa nonattainment area. Ozone design values<sup>4</sup> from Phoenix-Mesa that exceeded the 1997 8-hour standard of 0.08 parts per million<sup>5</sup> (ppm) ranged from 0.085 ppm (for the 2000–2002, 2001–2003, and 2003–2005 periods) to 0.088 ppm (for the 1998–2000 and 1999–2001 periods). The ozone design values for the Phoenix-Mesa nonattainment area for the 2004–2006 period (highest design value was 0.083 ppm) and years thereafter were at or below the standard. See EPA Air Quality System (AQS) data available in the docket for this proposed rulemaking and Table 3 below.

## II. CAA and Regulatory Requirements for 1997 8-Hour Ozone Nonattainment Area SIPs

Each area designated nonattainment for the 1997 8-hour ozone standard is subject to, at minimum, the general requirements for nonattainment area plans in subpart 1 of part D, title I of the CAA. Subpart 2 of part D contains more detailed requirements for ozone nonattainment areas classified under this subpart. The Phoenix-Mesa ozone nonattainment area is not currently classified under subpart 2.<sup>6</sup> EPA has proposed to classify the Phoenix-Mesa area under subpart 2 as "marginal" nonattainment for the 1997 8-hour ozone NAAQS (see 74 FR 2936 at 2944, January 16, 2009) but has not yet

<sup>4</sup> A design value is an ambient concentration calculated using a specific methodology to evaluate monitored air quality data and is used to determine whether an area's air quality meets a NAAQS. The methodology for calculating design values for the 8-hour ozone NAAQS is found in 40 CFR part 50, Appendix I.

<sup>5</sup> Based on the rounding conventions described in 40 CFR part 50, Appendix I, a design value of 0.085 ppm is the lowest value that exceeds the 1997 8-hour ozone NAAQS of 0.08 ppm.

<sup>6</sup> EPA now refers to these areas as "former subpart 1" nonattainment areas in light of the SCAQMD decision.

completed this rulemaking. Although a future final decision by EPA to classify the Phoenix-Mesa area under subpart 2 may trigger additional future requirements for the area, EPA believes that this does not prevent EPA from proposing or ultimately finalizing our action on the 2007 Ozone Plan in accordance with the subpart 1 requirements that currently apply to the area.<sup>7</sup> Thus, for purposes of evaluating the 2007 Ozone Plan, we are reviewing it for consistency with the applicable requirements of part D, title I of the Act, which are contained in sections 172(c)(1)–(9).<sup>8</sup>

In order to assist states in developing effective plans to attain the ozone standard, EPA issued the 8-hour ozone implementation rule. This rule was finalized in two phases. The first phase of the rule addresses classifications for the 1997 8-hour ozone standard, applicable attainment dates for the various classifications, and the timing of emissions reductions needed for attainment. See 69 FR 23951 (April 30, 2004). The second phase addresses SIP submittal dates and the requirements for reasonably available control technology and measures (RACT and RACM), reasonable further progress (RFP) demonstration, modeling and attainment demonstrations, contingency measures, and new source review. See 70 FR 71612 (November 29, 2005). The rule is codified at 40 CFR part 51, subpart X.<sup>9</sup> We discuss each of the applicable CAA and regulatory requirements for 8-hour ozone nonattainment plans in more detail below.

## III. Arizona's State Implementation Plan Submittal To Address Ozone Attainment in the Phoenix-Mesa Nonattainment Area

### A. Arizona's SIP Submittal

On June 13, 2007, the Arizona Department of Environmental Quality (ADEQ) submitted the "Eight-Hour

<sup>7</sup> EPA is currently obligated under the terms of a Consent Decree to take final action on the 2007 Ozone Plan by May 31, 2012. See *WildEarth Guardians v. Jackson*, Case No. 4:11-cv-02205-SI (N.D. CA).

<sup>8</sup> Although the DC Circuit Court in *SCAQMD* rejected EPA's rationale for implementing the 1997 8-hour ozone standard in certain nonattainment areas solely under subpart 1, EPA does not believe that the Court's ruling in this case alters any subpart 1 requirements that currently apply to the 2007 Ozone Plan.

<sup>9</sup> EPA has revised or proposed to revise several elements of the 8-hour ozone implementation rule since its initial promulgation in 2004. See, e.g., 74 FR 2936 (January 16, 2009); 75 FR 51960 (August 24, 2010); and 75 FR 80420 (December 22, 2010). None of these revisions affect any provision of the rule that is applicable to our proposed action today on the Phoenix-Mesa 2007 8-hour Ozone SIP.

Ozone Plan for the Maricopa Nonattainment Area" (2007 Ozone Plan) to EPA as a revision to the Arizona SIP. The plan was deemed complete by operation of law on December 13, 2007. MAG developed the 2007 Ozone Plan and the MAG Regional Council Executive Committee adopted the plan on June 11, 2007. ADEQ adopted the plan on June 13, 2007.<sup>10</sup> The 2007 Ozone Plan contains complete emission inventories for ozone precursors for 2002 and 2008, photochemical modeling to demonstrate that the standard will be attained in 2008 through the continued implementation of federal, state, and local control measures, motor vehicle emission budgets (MVEBs) used for transportation conformity, and descriptions of the State's compliance with CAA requirements for "Subpart 1" ozone nonattainment areas. We are proposing to approve the 2007 Ozone Plan for the Phoenix-Mesa nonattainment area.

#### B. CAA Procedural and Administrative Requirements for SIP Submittals

CAA sections 110(a)(1) and (2) and 110(l) require a state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submittal of a SIP or SIP revision. To meet this requirement, every SIP submittal should include evidence that adequate public notice was given and an opportunity for a public hearing was provided consistent with EPA's implementing regulations in 40 CFR 51.102.

MAG has satisfied the applicable statutory and regulatory requirements for reasonable public notice and hearing prior to adoption and submittal of the 2007 Ozone Plan. MAG and ADEQ jointly held two public hearings on June 1, 2007 and June 4, 2007. As evidence of notification of public hearings consistent with 40 CFR 51.102, the SIP submittal includes proof of newspaper publication and copies of letters sent to EPA and affected federal, state, and local agencies notifying interested parties of the joint MAG and ADEQ public hearings. We find, therefore, that the 2007 Ozone Plan submittal meets the procedural requirements for public notice and hearing in sections 110(a) and 110(l) of the CAA.

CAA section 110(k)(1)(B) requires EPA to determine whether a SIP submittal is complete within 60 days of

receipt. This section also provides that any plan submittal that EPA has not affirmatively determined to be complete or incomplete will be deemed complete by operation of law six months after the date of submittal. EPA's SIP completeness criteria are found in 40 CFR part 51, Appendix V. The 2007 Ozone Plan, submitted by ADEQ on June 13, 2007, was deemed complete by operation of law on December 13, 2007.

#### IV. Review of the 2007 Ozone Plan for Phoenix-Mesa

EPA evaluated the 2007 Ozone Plan according to the general subpart 1 nonattainment plan requirements contained in section 172(c) of the Act.

##### A. Emission Inventories

###### 1. Requirements for Emissions Inventories

CAA section 172(c)(3) requires each state with an ozone nonattainment area to submit plan provisions that include a "comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area, including such periodic revisions as the Administrator may determine necessary to assure that the requirements of this part are met". EPA has issued the "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations" (EI Guidance),<sup>11</sup> which provides guidance on how to develop base year and future year baseline emission inventories for 8-hour ozone, PM<sub>2.5</sub>, and regional haze SIPs. For areas designated nonattainment for the 8-hour ozone standard in 2004, EPA recommends using calendar year 2002 as the base year for the inventory. EI Guidance, p. 8.

Emissions inventories for ozone should include emissions of VOC, NO<sub>x</sub> and carbon monoxide (CO) and represent an average summer week day during the ozone season. See EI Guidance, pp. 14 and 17. States should include documentation in their submittals explaining how the emissions data were calculated. See 70 FR 71612 (Nov. 29, 2005) and EI Guidance p. 40. In estimating mobile source emissions, states should use the latest emissions models and planning assumptions available at the time the SIP is developed. See 68 FR 32802 (June

2, 2003) and 70 FR 71612 (Nov. 29, 2005).

###### 2. Emission Inventories in the 2007 8-Hour Ozone Plan

The base year and future year baseline inventories for NO<sub>x</sub>, CO and VOC for the Phoenix-Mesa nonattainment area, together with additional documentation for the inventories, are found in Volume 1 of the Appendices to the 2007 Ozone Plan.<sup>12</sup> These inventories represent average summer day (ozone season) emissions. A base year inventory is provided for 2002 and the projected baseline inventory is provided for the attainment year of 2008.<sup>13</sup> All inventories include NO<sub>x</sub>, CO, and VOC emissions from point, area, nonroad mobile, and onroad mobile sources, except that biogenic emission inventories include only NO<sub>x</sub> and VOC emissions.

The 2002 Periodic Emission Inventory (PEI) emissions estimates for Maricopa County and the Phoenix-Mesa nonattainment area, which provided the basis for the 2002 base year inventory, were calculated in terms of annual emissions and ozone season-day emissions. Emissions from point sources were estimated from each identified facility through permit system databases and annual emission reports submitted to the facility's permitting authority. Emissions from area sources were estimated by source category using information from permit databases and previous SIP inventories. Nonroad mobile source emissions were estimated with the EPA NONROAD 2002 model and onroad mobile source emissions were estimated from emission factors for various vehicle classes from MOBILE6.2 combined with estimates of vehicle miles traveled (VMT) using data submitted by the Arizona Department of Transportation to the U.S. Department of Transportation's Federal Highway Administration for the 2002 Highway Performance and Monitoring System. Biogenic emissions of NO<sub>x</sub> and VOC were calculated using MAGBEIS2, a modified version of the UAM-BEIS2 model developed specifically for use in Maricopa County, based on land use

<sup>12</sup> By "future year baseline inventories" or "projected baseline inventories", we mean projected emission inventories for future years that account for, among other things, the ongoing effects of economic growth and adopted emission control requirements.

<sup>13</sup> EPA's ozone implementation rule defines "attainment year ozone season" as "the ozone season immediately preceding a nonattainment area's attainment date." 40 CFR 51.900(g). Because the attainment date for Phoenix-Mesa is June 15, 2009, we refer to 2008 as the attainment year, and the 2008 ozone season as the "attainment year ozone season."

<sup>10</sup> Letter from Stephen A. Owens, Director of Arizona Department of Environmental Quality, to Wayne Nastri, Regional Administrator, U.S. Environmental Protection Agency, Region IX, "Submittal of the Eight-Hour Ozone Plan for the Maricopa County Nonattainment Area", June 13, 2007.

<sup>11</sup> "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations", EPA-454/R-05-001, November 2005. This document is available at <http://www.epa.gov/ttnchie1/eidocs/eiguid/index.html>.

information, surface temperature data, and emission factors for land use categories. See 2002 Periodic Emissions Inventory for Ozone Precursors, June 2004 in Volume 1 of the Appendices to the 2007 Ozone Plan.

Ozone precursor emissions from point, area, onroad, and nonroad sources used in the modeling domain (Table 1) were developed from the Comprehensive Air Quality Model with Extensions (CAMx), version 4.40, and the Emissions Preprocessor System (EPS3.0), based on the 2002 Periodic Emission Inventory for the three ozone episodes modeled for 2002. Biogenic VOC emission estimates used for the 2002 modeling domain (e.g., 451.3 metric tons per day in the June 2002 ozone episode) are significantly higher than biogenic VOC emissions estimated in the 2002 PEI (e.g., 41.7 metric tons per ozone season day). Section III of Appendix A, Exhibit 2 of the 2007 Ozone Plan describes the method used to estimate biogenic emissions for the modeling domain. MAG used a model developed in 2005, called Model of Emissions of Gases and Aerosols from Nature (MEGAN), that was determined to be more reliable and accurate for Maricopa County because it relies on local field studies that identified dominant plant species and emission factors, as well as locations and biomass densities, to estimate biogenic emissions of ozone precursors. In the 2002 base year inventory, biogenic sources contributed 65 percent to total VOC emissions. In contrast, anthropogenic onroad mobile sources dominated the

total NO<sub>x</sub> emissions and accounted for 63 percent of total NO<sub>x</sub>. See Tables 5-3 and 5-4 of the 2007 Ozone Plan.

The 2002 inventory was projected to 2008 by accounting for expected growth factors, ongoing control programs, and retirement rates for obsolete sources of emissions. MAG accounted for known projects in 2008 (e.g., the Phoenix Expansion Project of the Transwestern Pipeline Company) and additionally applied a five percent increase to onroad mobile source emissions of NO<sub>x</sub> and a three percent increase to all other anthropogenic emissions of VOC and NO<sub>x</sub>. The three percent increase was based on population projections prepared by the Arizona Department of Economic Security, based on a 2005 special census in Maricopa County. MAG applied the five percent increase to onroad mobile source emissions of NO<sub>x</sub> to create a safety margin for transportation conformity. See 2007 Ozone Plan, p. 5-5, and Appendices to Ozone Plan, Volume 1.

For biogenic emissions, the 2002 inventory was held constant for 2008. In additional information provided to EPA, MAG explained that no projected land use or land cover data was available for the 2008 attainment year, therefore biogenic emissions in the ozone modeling domain were held constant.<sup>14</sup> In the approved 1-hour ozone maintenance plan, MAG projected an increase in VOC emissions from the Phoenix Metropolitan nonattainment area due to changes in land use, i.e., increasing urbanization and residential land use and decreasing use of land for

agriculture. See 70 FR 13425 (Mar. 21, 2005). The 1-hour ozone maintenance plan relied on MAGBEIS2 to estimate biogenic emissions from the nonattainment area and modeling domain.<sup>15</sup> As shown in the additional information provided by MAG on February 8, 2012, the MAGBEIS2 VOC emission factor for urbanized land use is greater than the VOC emission factor for agricultural land use, therefore, based on the projected increased urbanization in the 1-hour ozone nonattainment area, VOC emissions projected by MAGBEIS2 increased from the 1999 base year to the 2015 maintenance year. In contrast, as described above, the 2007 8-hour ozone plan relied on a new biogenic emissions model (MEGAN) that is more representative of Maricopa County and its desert environment. The additional information provided by MAG shows the urbanized land use emission factors from MEGAN are lower than emission factors associated with agriculture or other undeveloped desert landscapes in Maricopa County. Therefore, using MEGAN, MAG expects that the trend of increasing urbanization (as projected in the 1-hour ozone maintenance plan) is expected to decrease VOC emissions from Maricopa County. Because MAG did not have 2008 land use data available, it determined that maintaining constant biogenic emissions of the ozone precursors would be more conservative than attempting to estimate the anticipated decrease in biogenic VOC emissions.<sup>16</sup>

TABLE 1—EMISSION INVENTORIES FOR THE PHOENIX-MESA MODELING DOMAIN FOR JUNE OZONE EPISODE  
[Metric tons per day]

	NO <sub>x</sub>		VOC	
	2002	2008	2002	2008
Point .....	11.15	32.78	11.72	13.55
Area .....	9.79	13.49	90.56	105.03
Nonroad Mobile .....	79.97	86.58	50.73	57.55
Onroad Mobile .....	182.36	145.52	91.84	72.34
Biogenics .....	8.56	8.56	451.28	451.28
Total .....	291.82	286.93	696.13	699.75

Source: 2007 Ozone Plan at Tables 5-3 and 5-4.

3. Proposed Action on the Emission Inventories

We have reviewed the 2002 base year inventory and the inventory methodologies used in the 2007 Ozone Plan and believe that the inventory was developed consistent with the CAA

requirements as reflected in the 8-hour ozone implementation rule and EPA's guidance. The 2002 base year inventory is a comprehensive inventory of actual emissions of ozone precursors in the Phoenix-Mesa nonattainment area. We therefore propose to approve the base

year inventory as meeting the requirements of CAA section 172(c)(3) and EPA's 8-hour ozone implementation rule.

<sup>14</sup> Email from Cathy Arthur, MAG, to Anita Lee, EPA, re: "Biogenic VOCs" on February 8, 2012, plus

two attachments on land use boundaries and emission factors.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

*B. Reasonably Available Control Measures Demonstration and Control Strategy*

1. Requirements for RACM and Control Strategies

CAA Section 172(c)(1) requires that each attainment plan “provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonable available control technology), and shall provide for attainment of the national primary ambient air quality standards.” The 8-hour ozone implementation rule requires that for each nonattainment area that is required to submit an attainment demonstration, the state must also submit concurrently a SIP revision demonstrating that it has adopted all RACM necessary to demonstrate attainment as expeditiously as practicable and to meet any RFP requirements. 40 CFR 51.912(d).

EPA has previously provided guidance interpreting the RACM requirement in the General Preamble at 13560<sup>17</sup> and in a memorandum entitled “Guidance on the Reasonably Available Control Measure Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas”, John Seitz, Director, OAQPS to Regional Air Directors, November 30, 1999 (Seitz memo). In summary, EPA guidance provides that, to address the requirement to adopt all RACM, states should consider all potentially reasonable control measures for source

categories in the nonattainment area to determine whether they are reasonably available for implementation in that area and whether they would, if implemented individually or collectively, advance the area’s attainment date by one year or more. See Seitz memo and General Preamble at 13560.<sup>18</sup> Any measures that are necessary to meet these requirements that are not already either federally promulgated, part of the state’s SIP, or otherwise creditable in SIPs must be submitted in enforceable form as part of a state’s attainment plan for the area.

CAA section 172(c)(6) requires nonattainment plans to “include enforceable emission limitation, and such other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and actions of emission rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date \* \* \*.” See also CAA section 110(a)(2)(A). The ozone implementation rule requires that all control measures needed for attainment be implemented no later than the beginning of the attainment year ozone season. See 40 CFR 51.908(d). The attainment year ozone season is defined as the ozone season immediately preceding a nonattainment area’s attainment date. See 40 CFR 51.900(g).

2. RACM Demonstration and the Control Strategy in the 2007 Ozone Plan

The attainment demonstration for the Phoenix-Mesa nonattainment area,

which we discuss further in section IV.D of this document, shows that implementation of all of the measures identified as RACM for the 1997 8-hour ozone NAAQS would enable the Phoenix-Mesa area to attain the 1997 8-hour ozone standard during the 2008 ozone season, preceding the 2009 attainment date for the area. EPA previously approved all of the key NO<sub>x</sub> and VOC control measures, including several dozen VOC RACT rules, as part of Arizona’s plans for attaining and maintaining the 1-hour ozone standard in Phoenix-Mesa.<sup>19</sup> The 2007 Ozone Plan specifically relies on seven of these control measures to demonstrate attainment of the 1997 8-hour ozone standard by June 15, 2009, and provides for implementation of these measures by the beginning of the attainment year ozone season (January 2008), consistent with the requirements of 40 CFR 51.908(d). See 2007 Ozone Plan at pp. 4–2 through 4–7.<sup>20</sup> We discuss below the seven measures that the attainment demonstration in the 2007 Ozone Plan relied on to reduce emissions of VOC and/or NO<sub>x</sub> (see Table 2). Emission reductions associated with each measure were estimated for the June 2008 ozone episode modeled for the attainment demonstration. Of these seven measures, phased-in emission test cutpoints and the development of intelligent transportation systems resulted in the greatest reduction in VOC emissions, and the summer fuel reformulation resulted in the greatest reduction in NO<sub>x</sub> emissions.

TABLE 2—2008 EMISSION REDUCTIONS FROM “ATTAINMENT MEASURES”

	VOC		NO <sub>x</sub>	
	Metric ton/day reduction	% Change compared to 2008 base case	Metric ton/day reduction	% Change compared to 2008 base case
Summer Fuel Reformulation .....	1 (0.1)	<0.1	10.3	3.5
Phased-in Emission Test Cutpoints .....	3.1	1.2	2.6	0.9
One Time Waiver from Vehicle Emissions Test .....	0.1	<0.1	<0.1	<0.1
Coordinate Traffic Signal Systems .....	<0.1	<0.1	<0.1	<0.1
Develop Intelligent Transportation Systems .....	2.2	0.9	0.4	0.1
Tougher Enforcement of Vehicle Registration and Emission Test Compliance .....	0.2	<0.1	0.1	<0.1

<sup>17</sup>The “General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990”, published at 57 FR 13498 on April 16, 1992, describes EPA’s preliminary view on how we would interpret various SIP planning provisions in title I of the CAA as amended in 1990, including those planning provisions applicable to the 1-hour ozone standard. EPA continues to rely on certain guidance in the General Preamble to implement the 8-hour ozone standard under title I.

<sup>18</sup> See also “State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of

Plan Revisions for Nonattainment Areas”, 44 FR 20372 (April 4, 1979), and Memorandum dated December 14, 2000 from John S. Seitz, Director, Office of Air Quality Planning and Standards, “Additional Submission on RACM from States with Severe One-Hour Ozone Nonattainment Area SIPs”.

<sup>19</sup> See, e.g., 2007 Ozone Plan at Table 1–1; 68 FR 2912 (January 22, 2003); 69 FR 10161 (March 4, 2004); 70 FR 30370 (May 26, 2005); 70 FR 13425 (March 21, 2005) (proposed redesignation of Phoenix to attainment for the 1-hour standard) and 70 FR 34362 (June 14, 2005) (final redesignation).

RACT rules for NO<sub>x</sub> were not required for purposes of attaining and maintaining the 1-hour ozone NAAQS in Phoenix-Mesa because EPA approved a petition for NO<sub>x</sub> exemption for this purpose. 60 FR 19510 (April 19, 1995).

<sup>20</sup> The 2007 Ozone Plan refers to these seven control measures as “attainment measures,” to be distinguished from “baseline measures,” which were taken into account in the base year and projection year emission inventories. See 2007 Ozone Plan at 4–2 and Volume 1 of the Appendices to the 2007 Ozone Plan at Table III–1.

TABLE 2—2008 EMISSION REDUCTIONS FROM “ATTAINMENT MEASURES”—Continued

	VOC		NO <sub>x</sub>	
	Metric ton/day reduction	% Change compared to 2008 base case	Metric ton/day reduction	% Change compared to 2008 base case
Rule 358: Polystyrene Foam Operations .....	0.5	0.2	N/A	N/A
Total .....	6.0	2.4	13.4	4.6

Source: 2007 Ozone Plan at Table 5-2.

<sup>1</sup> Increase.

#### a. Summer Fuel Reformulation

The 2007 Ozone Plan relies on H.B. 2307, a Cleaner Burning Gasoline (CBG) program passed by the Arizona Legislature in 1997. The CBG program contains requirements related to seasonal changes in gasoline formulation related to vapor pressure and oxygen content. Typically, fuel reformulation measures are designed to reduce summertime evaporative VOC emissions. However, the results of MAG's emissions modeling analyses suggest that the summer reformulation measure would increase VOC emissions slightly and significantly reduce emissions of NO<sub>x</sub>. In Volume 2 of the Appendices to the 2007 Ozone Plan, in response to EPA comments, MAG explains that the slight increase in projected VOC emissions from the summer fuel reformulation measure occurred because the MOBILE6.2 input for the measure specified a Reid vapor pressure (RVP) of 7.0 pounds per square inch (psi). Actual fuel specifications for the 2002 base case used actual fuel specifications from the Arizona Department of Weights and Measures that were lower than 7.0 psi. The projected decrease in NO<sub>x</sub> emissions in 2008 from the summer fuel reformulation measure is a result of the removal of the summertime (April 1 through November 1) minimum oxygen content standard for Type 1 gasoline. Oxygenates in fuel are used to improve combustion as a control strategy for CO and other products of incomplete combustion, for example unburned VOCs; however improved combustion also tends to increase formation of NO<sub>x</sub>. Therefore, removal of the minimum summertime oxygenate standard is projected to reduce formation of NO<sub>x</sub>. See 2007 Ozone Plan at 4-2, 4-3.

#### b. Phased-in Emission Test Cutpoints

The 2007 Ozone Plan describes two measures passed by the Arizona Legislature that comprise this attainment measure: H.B. 2237, passed in 1997, that appropriates funds from the State General Fund to develop and

implement an alternative test protocol to reduce false failure rates associated with the more stringent standards for the Vehicle Emissions Testing Program, and S.B. 1427, which requires vehicles in certain areas to be emission tested and requires owners of the newest five model year vehicles to be exempt from testing but to pay an in lieu fee that is deposited into the Arizona Clean Air Fund, effective December 31, 1998. Using MOBILE6.2, MAG estimated that this measure reduces NO<sub>x</sub> emissions by 2.6 metric tons per day in the June 2008 ozone episode and VOC emissions by 3.1 metric tons per day. See 2007 Ozone Plan at 4-3, 4-4.

#### c. One Time Waiver From Vehicle Emissions Test

The Arizona Legislature passed S.B. 1002 which limits issuance of a waiver for failure to comply with emission testing requirements to one-time only, effective January 1, 1997. MAG modeled this measure in MOBILE6.2 by adjusting the percentage of waivers allowed and estimated that this measure reduces NO<sub>x</sub> emissions by less than 0.1 metric tons per day in the June 2008 ozone episode and VOC emissions by 0.1 metric tons per day. See 2007 Ozone Plan at 4-4.

#### d. Coordinate Traffic Signal Systems

House Bill 2237 passed by the Arizona Legislature contains appropriations for fiscal years 1997-1998 and 1998-1999 to Arizona Department of Transportation for distribution to cities and counties for synchronization of traffic signals within and across jurisdictional boundaries. MAG modeled this measure in MOBILE6.2 by adjusting the input for idling time at traffic signals and estimated that this measure reduces NO<sub>x</sub> emissions by less than 0.1 metric tons per day in the June 2008 ozone episode and VOC emissions by less than 0.1 metric tons per day. See 2007 Ozone Plan at 4-4, 4-5.

#### e. Develop Intelligent Transportation Systems

The 2007 Ozone Plan cites three committed control measures in the 1-hour Ozone Maintenance Plan that serve to reduce traffic congestion: “Coordinate Traffic Signal Systems”, “Develop Intelligent Transportation Systems”, and “Reduce Traffic Congestion at Major Intersections”. The 2007 Ozone Plan describes these measures as technologies implemented on the local level over fiscal years 2003-2006 that reduce VOC and NO<sub>x</sub> emissions by reducing congestion. MAG estimated emission reductions from these measures to be 0.4 metric tons of NO<sub>x</sub> per day in the June 2008 ozone episode and 2.2 metric tons of VOC per day. See 2007 Ozone Plan at 4-5.

#### f. Tougher Enforcement of Vehicle Registration and Emission Test Compliance

The 2007 Ozone Plan cites two measures from the Arizona Legislature and a program implemented by the Arizona Motor Vehicle Division of the Arizona Department of Transportation that collectively improve enforcement of vehicle registration and compliance with vehicle testing requirements: S.B. 1427 passed in 1998 that requires school and special districts in certain areas to prohibit employees who have not complied with emission testing requirements from parking in employee parking lots, and H.B. 2254 passed in 1999 that requires vehicles owned by federal, state, or political state subdivisions in Arizona to comply with A.R.S 49-542. MAG modeled this measure in MOBILE6.2 by adjusting the weighting between inspection and maintenance (I/M) and non-I/M emission factors, and estimated that this measure reduces NO<sub>x</sub> emissions by 0.1 metric tons per day in the June 2008 ozone episode and VOC emissions by 0.2 metric tons per day. See 2007 Ozone Plan at 4-5, 4-6.

g. Maricopa County Rule 358:  
Polystyrene Foam Operations

Rule 358 adopted by Maricopa County on April 20, 2005 limits VOC emissions from the manufacturing of expanded-polystyrene products. MAG relied on information provided by the Maricopa County Air Quality Department that Rule 358 would result in 80 percent control effectiveness and 80 percent rule effectiveness. MAG estimated VOC emission reductions to be 0.5 metric tons per day in the June 2008 ozone episode, with no effect on emissions of NO<sub>x</sub>. See 2007 Ozone Plan at 4–6, 4–7.

### 3. Proposed Actions on the RACM Demonstration and Control Strategy

Based on our review of the RACM analysis and Arizona's adopted rules, we propose to find that the 2007 Ozone Plan provides for implementation of all reasonably available control measures necessary to demonstrate expeditious attainment of the 1997 8-hour ozone standard and to meet any related RFP requirements in the Phoenix-Mesa nonattainment area, consistent with the applicable requirements of CAA section 172(c)(1) and 40 CFR 51.912.

#### C. Attainment Demonstration

##### 1. Requirements for Attainment Demonstration

CAA section 172(c)(1) requires states with ozone nonattainment areas to submit plan provisions that provide for attainment of the national ambient air quality standards. See also 40 CFR 51.908. The attainment demonstration should include:

- a. Technical analyses to locate and identify sources of emissions that are causing violations of the 8-hour ozone NAAQS within the nonattainment area;
- b. Adopted measures with schedules for implementation and other means and techniques necessary and appropriate for attainment; and
- c. Contingency measures required under section 172(c)(9) of the CAA.

See 70 FR 71612 (Nov. 29, 2005).

The requirements for the first two items are described in the sections on emission inventories and RACM/RACT above (sections IV.A and IV.B) and in the sections on air quality modeling and attainment demonstration that follow immediately below. Requirements for the third item are described in the section on contingency measures (IV.F.).

##### 2. Air Quality Modeling in the Phoenix-Mesa 2007 Ozone Plan

Under EPA's ozone implementation rule, an attainment demonstration must meet the air quality modeling and other requirements of 40 CFR 51.112 and

must be supported "by means of a photochemical grid model or any other analytical method determined by [EPA] to be at least as effective." See 40 CFR 51.908. Air quality modeling is used to establish attainment emissions targets, that is, a combination of ozone precursor emission levels that the area can accommodate without exceeding the NAAQS, and to assess whether the proposed control strategy will result in attainment of the NAAQS.

Air quality modeling is performed for a base year and compared to air quality monitoring data from that year in order to evaluate model performance. Once the performance is determined to be acceptable, future year changes to the emissions inventory are simulated with the model to determine the effect of emissions reductions on ambient air quality. The procedures for modeling ozone as part of an attainment demonstration are contained in EPA's "Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for the 8-Hour Ozone and PM<sub>2.5</sub> NAAQS and Regional Haze" (Guidance). The Guidance also recommends that supplemental analyses be performed, and used in combination with the modeling in a Weight of Evidence determination that the control strategy will result in attainment of the NAAQS. See Guidance p. 17.

The air quality modeling is described in Chapter 3 of the 2007 Ozone Plan and documented in Volume One of the Appendices to the 2007 Ozone Plan, in Appendix A, Exhibit 2 ("Modeling TSD"). We provide a brief description of the modeling and a summary of our evaluation of it below.

MAG performed the air quality modeling for the 2007 Ozone Plan using the Comprehensive Air Quality Model with Extensions (CAMx) photochemical model, incorporating meteorological fields from the Mesoscale Model version 5 (MM5). These models have been extensively used in developing SIP attainment demonstrations and are identified in EPA Guidance as candidate models. See Guidance pp. 139 & 160. While there was no intensive field study for this modeling effort, 31 ozone stations and 56 meteorological stations provided an ample database of routinely collected data for use in model application development and performance evaluation.

EPA recommends that States prepare modeling protocols as part of their modeled attainment demonstrations. Guidance, p. 133. The Guidance at pp. 133–134 describes the topics to be addressed in this modeling protocol. A modeling protocol should detail the

procedures for conducting the modeling analysis, such as the background and objectives, the schedule and organizational structure, selection of ozone episodes to model, meteorological and emissions input data preparation, model performance evaluation, interpreting modeling results, and procedures for using the model to demonstrate whether proposed strategies are sufficient to attain the NAAQS. The 2007 Ozone Plan's modeling protocol is contained in Volume Two of the Appendices to the 2007 Plan, in Appendix I-i, and covers all of the topics recommended in the Guidance.

A key part of the modeling protocol is the selection of ozone episodes to be modeled. An attainment demonstration that is robust despite natural variability should include modeling of multiple days with high ozone concentrations, spanning the range of meteorological conditions that lead to exceedances of the NAAQS in the area. See Guidance p. 146. Volume two of the Appendices to the 2007 Ozone Plan, Attachment II, has a thorough description of the episode selection process. A climatology of high ozone days for 1987–2004 was prepared, considering synoptic meteorological conditions, temperature, wind speed, wind direction, and frequency of high ozone by month, day of week, and hour of day. For the more recent 2000–2004 period, ozone spatial patterns were examined, and back trajectories prepared to help assess whether ozone was locally generated or partly due to transport from outside the domain. High temperature occurred on summer days whether they exceeded the standard or not, and so was not useful in selecting episodes. Typical features of episodes are high ozone concentrations northeast of central Phoenix and winds from the east in the morning, shifting to south at midday, and then southwesterly in the afternoon. Based on the analysis, MAG identified three meteorological regimes leading to high ozone concentrations, and six candidate recent ozone episodes. On the basis of ozone episode severity and duration, MAG chose three of the episodes for modeling. Regime 1 is characterized by stagnant winds and purely local generation of ozone; it includes some weekend exceedances. It is represented by the July 8–14, 2002 episode with a maximum ozone concentration of 107 ppb at Maryvale, and eight other exceeding sites; this was the episode with the highest ozone concentration during the 2000–2004 period. Regime 2 is characterized by light winds, with potential for transport

from the south and southwest. It is represented by the June 3–7, 2002 episode with a maximum ozone concentration of 92 ppb at Fountain Hills, and eleven other exceeding sites. Regime 3 is characterized by a non-calm winds from other directions. It is represented by the August 5–11, 2001 episode with a maximum ozone concentration of 99 ppb at Cave Creek, and four other exceeding sites. (Both regimes 2 and 3 occur in this episode.) The regimes had in common low wind speeds, partial cloud cover, and a low pressure system in the southwest of the State and a high pressure system in the northeast. EPA finds the selection process to be well-documented and well-reasoned, and the selected episodes to be a good basis for the attainment demonstration.

Section IV of the Modeling TSD in Volume one of the Appendices to the 2007 Ozone Plan includes extensive statistical and graphical analysis demonstrating adequate overall model performance for the June 2002 episode, but also shows consistent underprediction for the August 2001 and July 2002 episodes. Under EPA Guidelines, models are used in a relative sense (see discussion on Relative Response Factors below), so although underpredictions in model performance do not necessarily mean that future design values would be underpredicted, they do suggest that these two episodes may be less reliable for predicting the effect of emissions changes. Thus, primary weight was given to the June 2002 episode in the attainment demonstration. CAMx model diagnostic sensitivity tests were performed by MAG to provide assurance that the model is adequately simulating the physical and chemical processes leading to ozone in the atmosphere and that the model responds in a scientifically reasonable way to emissions changes. The tests included zeroing out boundary condition concentrations, initial condition concentrations, and various categories of emissions. The model responded in a physically reasonable way in each of these tests. MAG also undertook sensitivity tests for MM5, which provides meteorological input to the CAMx air quality model. These are described in Appendix III to the Modeling TSD, and included

incorporation of alternative observational data sets, and an alternative convection scheme to avoid overestimating convective rainfall in this dry southwestern area. The meteorological model was found to perform adequately for wind speed, wind direction, temperature, and humidity. EPA finds the procedures MAG followed to be well-documented and reasonable, and to be acceptable for supporting the modeled attainment demonstration.

For the modeled attainment test, the model is used to predict the air quality effect of changes in emissions due to land use changes, growth, and the effect of control measures. Under current EPA Guidance, the model is used to develop Relative Response Factors (RRFs) that give the model's response to emission changes, and the RRFs are applied to monitored design value concentrations to arrive at the predicted future concentrations. The particulars of the calculation, and which model grid cells and modeled days are to be included, are specified in the EPA Guidance. Guidance pp. 15, 25, and 155. MAG assessed the 2008 effect of the seven control measures using the EPA-specified procedure, and found the maximum predicted ozone design value to be 84 ppb, which is in attainment of the ozone NAAQS. It should be noted that this result includes 5 percent additional NO<sub>x</sub> to create a safety margin for the transportation conformity motor vehicle emissions budget. EPA agrees that MAG's modeling demonstrates attainment of the ozone NAAQS by summer 2008.

In addition to a modeled attainment demonstration, which focuses on locations with an air quality monitor, EPA generally requires an Unmonitored Area Analysis. This analysis is intended to ensure that a control strategy leads to reductions in ozone at other locations that have no monitor but that might have base year (and/or future year) ambient ozone levels exceeding the NAAQS. The unmonitored area analysis uses a combination of model output and ambient data to identify areas that might exceed the NAAQS if monitors were located there. In order to examine unmonitored areas in all portions of the modeling domain, EPA recommends use of interpolated spatial fields of ambient data combined with gridded modeled

outputs. Guidance, p. 29. MAG used a variation of the EPA-described approach, described in section V of the modeling TSD, as a corroboratory screening test. The attainment demonstration passed this corroboratory screening test. EPA notes that concentration gradients in the supplied spatial isopleth maps appear to be weak except in the downtown area where the monitoring network is fairly dense and the RRFs themselves have only weak spatial variation. We believe the plan's Unmonitored Area Analysis is adequate.

Finally, the Weight of Evidence Analysis in Appendix V of the Modeling TSD, in Volume two of the Appendices to the 2007 Ozone Plan, includes several supplemental analyses in support of the attainment demonstration. These include ozone air quality trends and precursor emission trends, both of which show continued progress and support the conclusion that the attainment demonstration is sound. Appendix G of Attachment II to the modeling protocol, in Volume two of the Appendices to the 2007 Ozone Plan also illustrated the downward ozone trends at all ozone monitors. Other analyses examined the sensitivity of the model to NO<sub>x</sub> reductions, the representation of VOC speciation in the model, the VOC:NO<sub>x</sub> ratio as a photochemical indicator, Process Analysis, and examination of Weekday vs. Weekend effects. These analyses provided observational and modeling evidence that the model is correctly replicating the ozone photochemistry of the area, and that the Weight of Evidence supports the conclusion that the Phoenix-Mesa will attain the ozone NAAQS in 2008. Additionally, Table 3 below shows that design values (DV) in ppm from all monitors in the Phoenix-Mesa nonattainment area, operated by three different agencies (Pinal County Air Quality Control District (PACQCD), Maricopa County Air Quality Division (MCAQD), and ADEQ), appear to have been meeting the 1997 ozone NAAQS based on monitored ozone concentrations since 2005.

EPA proposes to find that the modeling provides an adequate basis for the RACM/RACT, RFP, and attainment demonstrations in the Phoenix-Mesa 2007 8-Hour Ozone Plan.

TABLE 3—OZONE DESIGN VALUES FROM 2005–2010 MONITORING DATA IN PHOENIX-MESA NONATTAINMENT AREA\*

Site	Site ID	Agency		2005–07	2006–08	2007–09	2008–10
Apache Junction ....	04-013-3001	PCAQCD .....	DV (ppm) .....	0.076	0.080	0.075	0.073
			% complete .....	99	99	99	99
Buckeye .....	04-013-4011	MCAQD .....	DV (ppm) .....	0.065	0.066	0.064	0.064

TABLE 3—OZONE DESIGN VALUES FROM 2005–2010 MONITORING DATA IN PHOENIX-MESA NONATTAINMENT AREA\*—Continued

Site	Site ID	Agency		2005–07	2006–08	2007–09	2008–10
Blue Point .....	04–013–9702	MCAQD .....	% complete .....	100	100	100	100
			DV (ppm) .....	0.067	0.064	0.067	0.070
Cave Creek .....	04–013–4008	MCAQD .....	% complete .....	100	94	99	99
			DV (ppm) .....	0.079	0.078	0.075	0.074
Central Phoenix .....	04–013–3002	MCAQD .....	% complete .....	100	100	100	100
			DV (ppm) .....	0.075	0.074	0.070	0.071
Dysart .....	04–013–4010	MCAQD .....	% complete .....	99	97	100	100
			DV (ppm) .....	0.067	0.067	0.066	0.068
Falcon Field .....	04–013–1010	MCAQD .....	% complete .....	97	100	100	100
			DV (ppm) .....	0.076	0.075	0.071	0.070
Fountain Hill .....	04–013–9704	MCAQD .....	% complete .....	97	98	100	100
			DV (ppm) .....	0.082	0.079	0.074	0.074
Glendale .....	04–013–2001	MCAQD .....	% complete .....	98	100	99	100
			DV (ppm) .....	0.075	0.074	0.071	0.072
Humboldt Mountain	04–013–9508	MCAQD .....	% complete .....	100	100	100	100
			DV (ppm) .....	0.081	0.078	0.074	0.071
North Phoenix .....	04–013–1004	MCAQD .....	% complete .....	100	100	99	100
			DV (ppm) .....	0.082	0.081	0.076	0.077
Pinnacle Peak .....	04–013–2005	MCAQD .....	% complete .....	99	95	100	100
			DV (ppm) .....	0.078	0.074	0.072	0.073
Rio Verde .....	04–013–9706	MCAQD .....	% complete .....	99	99	100	99
			DV (ppm) .....	0.083	0.080	0.075	0.072
South Phoenix .....	04–013–4003	MCAQD .....	% complete .....	99	92	96	100
			DV (ppm) .....	0.072	0.072	0.071	0.072
South Scottsdale ...	04–013–3003	MCAQD .....	% complete .....	99	99	99	100
			DV (ppm) .....	0.078	0.077	0.075	0.074
JLG Supersite .....	04–013–9997	ADEQ .....	% complete .....	98	97	99	99
			DV (ppm) .....	0.076	0.076	0.075	0.075
Tempe .....	04–013–4005	MCAQD .....	% complete .....	100	98	100	99
			DV (ppm) .....	0.077	0.077	0.073	0.071
West Chandler .....	04–013–4004	MCAQD .....	% complete .....	97	97	100	98
			DV (ppm) .....	0.076	0.076	0.073	0.073
West Phoenix .....	04–013–0019	MCAQD .....	% complete .....	100	98	100	100
			DV (ppm) .....	0.074	0.078	0.073	0.073
			% complete .....	100	99	99	99

\* The data in this table has been certified in EPA's Air Quality System (AQS) database in accordance with the requirements of 40 CFR part 58. We provide these data only to support our evaluation of the modeling and attainment demonstration and not to support a determination regarding attainment, which is not part of today's proposed action.

### 3. Proposed Action on the Attainment Demonstration

In order to approve a SIP's attainment demonstration, EPA must make several findings:

First, we must find that the demonstration's technical bases, emission inventories and air quality modeling, are adequate. As discussed in section IV.A and IV.C.2, we are proposing to approve the base year emission inventory and to find the air quality modeling adequate to support the attainment demonstration.

Second, we must find that the SIP provides for expeditious attainment through the implementation of all RACM. As discussed above in section III.B, we propose to find that the 2007 Ozone Plan provides for implementation of all reasonably available control measures necessary for expeditious attainment of the 1997 8-hour ozone NAAQS and any related RFP requirements in the Phoenix-Mesa nonattainment area.

Third, we must find that the emission reductions that are relied on for attainment are creditable and are sufficient to provide for attainment. All of the key attainment measures relied on in the 2007 Ozone Plan to attain the 1997 8-hour ozone standard by June 15, 2009 have been adopted and approved into the SIP.

For the foregoing reasons, we propose to approve the attainment demonstration in the 2007 Ozone Plan for the Phoenix-Mesa nonattainment area.

#### D. Reasonable Further Progress Demonstration

CAA section 172(c)(2) requires that plans for nonattainment areas provide for reasonable further progress (RFP). RFP is defined in section 171(1) as "such annual incremental reductions in emissions of the relevant air pollutant as are required by [title 1, part D] or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable

[standard] by the applicable date." The ozone implementation rule interprets the RFP requirements for the purposes of the 1997 ozone standards, establishing requirements for RFP that depend on the area's classification. For areas with attainment dates on or before June 15, 2009, RFP would be met by ensuring emissions reductions needed for attainment are implemented by the beginning of the ozone season prior to the attainment date. See 40 CFR 51.910(b) and 70 FR 71612.

The attainment date for the Phoenix-Mesa ozone nonattainment area is June 15, 2009, and as discussed in the RACM demonstration and control strategy (section IV.B) and the attainment demonstration (section IV.C) sections above, all of the control measures needed for the attainment demonstration were being implemented prior to the 2008 ozone season. We propose, therefore, to approve the RFP demonstration in the 2007 Ozone Plan.

*E. Contingency Measures*

1. Requirements for Contingency Measures

CAA section 172(c)(9) requires plans to provide for the implementation of contingency measures, that achieve additional emission reductions, to be undertaken if the area fails to meet RFP milestones or fails to attain by its attainment date. These contingency measures must be rules or measures that are ready for implementation quickly upon failure to meet milestones or attainment. The SIP should define trigger mechanisms for the contingency measures, specify a schedule for implementation, and indicate that the measures will be implemented without significant further action by the State or EPA. See 68 FR 32802 (June 2, 2002) and 70 FR 71612 (Nov. 29, 2005).

Additional guidance on the CAA contingency measure provisions is found in the General Preamble at 13510–13512 and 13520. The guidance indicates that states should adopt and submit contingency measures sufficient to provide a 3 percent emission reduction from the adjusted RFP base year. This level of reduction is generally acceptable to offset emission increase

while States are correcting their SIPs. These reductions would be beyond what is needed to meet the attainment and/or RFP requirement. States may use reductions of either VOC or NO<sub>x</sub> or a combination of both to meet the contingency measure requirements. General Preamble at 13520, footnote 6. EPA guidance also provides that contingency measures could be implemented early, *i.e.*, prior to the milestone or attainment date.<sup>21</sup> Consistent with this policy, states are allowed to use excess reductions from already adopted measures to meet the CAA section 172(c)(9) and 182(c)(9) contingency measure requirement. This is because the purpose of contingency measures is to provide extra reductions that are not relied on for RFP or attainment that will provide for continued progress while the plan is being revised to fully address the failure to meet the required milestone. Nothing in the CAA precludes a State from implementing such measures before they are triggered. This approach has been approved in numerous SIPs. See 62 FR 15844 (April 3, 1997) (approval of the Indiana portion of the Chicago area 15 percent Rate of Progress plan); 66 FR 30811 (June 8, 2001) (proposed

approval of the Rhode Island post-1996 ROP plan); and 66 FR 586 and 66 FR 634 (January 3, 2001) (approval of the Massachusetts and Connecticut 1-hour ozone attainment demonstrations). In the only adjudicated challenge to this approach, the court upheld it. See *LEAN v. EPA*, 382 F.3d 575 (5th Cir. 2004); 70 FR 71612.

2. Contingency Measures in the 2007 Ozone Plan

Contingency measure provisions for the Phoenix-Mesa nonattainment area and the methodologies used to estimate the emission reductions from these measures are described in Chapters 4 and 5 of the 2007 Ozone Plan and Section V of Volume 1 of the Appendices to the 2007 Ozone Plan. Table 4 lists the five contingency measures and the estimated reductions in VOC and NO<sub>x</sub> emissions from each measure. All five contingency measures have already been implemented in the Phoenix-Mesa nonattainment area, but credit for these measures were not needed or used to demonstrate attainment. See 2007 Ozone Plan at pp. 4–7 through 4–10 and 5–15 through 5–17.

TABLE 4—EMISSION REDUCTIONS FROM INDIVIDUAL CONTINGENCY DOMAIN MEASURES IN THE PHOENIX-MESA 8-HOUR OZONE MODELING DOMAIN

Base case emissions on June 6, 2002	VOC 696.13 metric tons/day		NO <sub>x</sub> 291.82 metric tons/day	
	Reduction (metric ton/ day)	Percent reduction	Reduction (metric ton/ day)	Percent reduction
Expansion of Area A Boundaries .....	1.3	0.2	0.7	0.2
Gross Polluter Option for I/M Waivers .....	<0.1	<0.1	<0.1	<0.1
Increased Waiver Repair Limit Options .....	<0.1	<0.1	<0.1	<0.1
Federal Heavy Duty Diesel Vehicle Standards .....	<0.1	<0.1	2.5	0.9
Federal Nonroad Equipment Standards .....	14.6	2.1	15.6	5.3
<b>Total .....</b>	<b>15.9</b>	<b>2.3</b>	<b>18.8</b>	<b>6.4</b>

Source: 2007 Ozone Plan at Table 5–6.

a. Expansion of Area A Boundaries

In 2001, the Arizona legislature passed H.B. 2538 to expand the boundaries of Area A, adding additional portions of Maricopa County west of Goodyear and Peoria and a small area on the north side of Lake Pleasant. The implementation of air quality measures within the new Area A boundaries began on January 1, 2002, except for public sector alternative fuel requirements to be phased in over a seven-year period. MAG modeled this contingency measure by increasing the

number of registered vehicles in Area A that will be required to participate in the I/M program. MAG estimated the emission reductions from this contingency measure to be 1.3 metric tons per day of VOC and 0.7 metric tons per day of NO<sub>x</sub>, but did not take credit for this measure in the attainment demonstration. See 2007 Ozone Plan at 4–7 and 4–8.

b. Gross Polluter Option for I/M Waivers

The Arizona legislature passed S.B. 1427 in 1998 to require vehicle owners with vehicles emitting more than twice

the emission standard to repair the vehicle sufficiently to reduce the emission levels to less than twice the standard in order to obtain a compliance waiver from the Vehicle Emissions Inspection Program. ADEQ modeled the emission reductions for this measure and estimated the emission reductions from this contingency measure to be less than 0.1 metric tons per day of VOC and less than 0.1 metric tons per day of NO<sub>x</sub>. MAG but did not take credit for this measure in its attainment

<sup>21</sup> Memorandum, G.T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch to Air Directors,

“Contingency Measures for Ozone and Carbon Monoxide Redesignations,” June 1, 1992.

demonstration. See 2007 Ozone Plan at 4–9.

#### c. Increased Waiver Repair Limit Options

In 1998, the Arizona legislature passed S.B. 1427 to increase the amount a person must spend to repair a failing 1967–1974 vehicle in Area A in order to qualify for a waiver from \$100 to \$200. MAG modeled this measure using MOBILE6.2 by reducing the pre-1981 vehicle waiver rate from 4 to 2.6 percent. The emission reductions from this contingency measure were estimated to be less than 0.1 metric tons per day of VOC and less than 0.1 metric tons per day of NO<sub>x</sub>. MAG did not take credit for this measure in its attainment demonstration. See 2007 Ozone Plan at 4–9.

#### d. Federal Heavy Duty Diesel Vehicle Standards

On January 18, 2001, EPA issued a final rule that set more stringent emission standards for new heavy duty diesel vehicles (66 FR 5001). The rule requires high-efficiency catalytic converters or comparable technologies be installed on 2007 and later model year diesel vehicles, and requires ultra-low sulfur fuel be used in all onroad diesel vehicles beginning in 2006. MAG modeled emission reductions from this federal measure using MOBILE6.2 and estimated VOC reductions of less than 0.1 metric tons of VOC per day and 2.5 metric tons of NO<sub>x</sub> per day. MAG did not take credit for this measure in its attainment demonstration. See 2007 Ozone Plan at 4–9.

#### e. Federal Nonroad Equipment Standards

On October 23, 1998, EPA issued a final rule to set more stringent Tier 2 and Tier 3 emission standards for new diesel nonroad equipment (63 FR 56967). The Tier 2 program phased in more stringent standards for all equipment between 2001 and 2006 and Tier 3 imposed even more stringent standards for 50 to 750 horsepower engines in 2006 to 2008. Additionally, on June 29, 2004, EPA issued the Clean Air Nonroad Diesel—Tier 4 Final rule to require manufacturers to produce nonroad engines with emission controls that will reduce emissions by more than 90 percent (69 FR 38958). The Tier 4 standards apply to nonroad engines less than 25 horsepower beginning in 2008 and will apply to larger engines over 2011 to 2015. MAG estimated emission reductions from this measure using the EPA NONROAD model and projected VOC emission reductions of 14.6 metric tons of VOC per day and 15.6 metric

tons of NO<sub>x</sub> per day. MAG did not take credit for this measure in its attainment demonstration. See 2007 Ozone Plan at 4–9 and 4–10.

#### 3. Proposed Action on the Contingency Measures

We propose to approve the contingency measures in the 2007 Ozone Plan. The contingency measures are consistent with EPA guidance that recommends a 3 percent emission reduction. All contingency measures have already been implemented but EPA guidance allows for the early implementation of contingency measures.

#### F. Motor Vehicle Emissions Budgets for Transportation Conformity

##### 1. Requirements for Motor Vehicle Emission Budgets

CAA section 176(c) requires federal actions in nonattainment and maintenance areas to conform to the SIP's goals of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of the standards. Conformity to the SIP's goals means that such actions will not: (1) Cause or contribute to violations of a NAAQS, (2) worsen the severity of an existing violation, or (3) delay timely attainment of any NAAQS or any interim milestone.

Actions that involve Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the EPA's transportation conformity rule, codified in 40 CFR part 93, subpart A. Under this rule, metropolitan planning organizations (MPOs) in nonattainment and maintenance areas coordinate with state and local air quality and transportation agencies, EPA, FHWA, and FTA to demonstrate that an area's regional transportation plans (RTP) and transportation improvement programs (TIP) conform to the applicable SIP. This demonstration is typically done by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the motor vehicle emission budgets (budgets) contained in the SIP. An attainment, maintenance, or RFP SIP should establish budgets for the attainment year, each required RFP year, or last year of the maintenance plan, as appropriate. Budgets are generally established for specific years and specific pollutants or precursors. Ozone attainment and RFP plans should establish budgets for NO<sub>x</sub> and VOC. See 40 CFR 93.102(b)(2)(i).

Before an MPO may use budgets in a submitted SIP, EPA must first determine

that the budgets are adequate or approve the budgets. In order for EPA to find the budgets adequate and approvable, the submittal must meet the conformity adequacy requirements of 40 CFR 93.118(e)(4) and be approvable under all pertinent SIP requirements. To meet these requirements, the budgets must reflect all of the motor vehicle control measures contained in the attainment and RFP demonstrations. See 40 CFR 93.118(e)(4)(v).

##### 2. Motor Vehicle Emission Budgets in the Phoenix-Mesa 2007 Ozone Plan

The 2007 Ozone Plan for Phoenix Mesa included budgets for VOC and NO<sub>x</sub> for the 2008 attainment year. On October 4, 2007, we notified ADEQ and MAG that we found the MVEB for the 2008 attainment year adequate for transportation conformity purposes. See letter from Deborah Jordan, EPA Region 9, to Nancy Wrona, ADEQ, and Dennis Smith, MAG, "RE: Adequacy Status of Motor Vehicle Emissions Budgets in Eight-Hour Ozone Plan for the Maricopa Nonattainment Area (June 2007)", October 4, 2007. We published a notice of our findings at 72 FR 60666 (October 25, 2007). The budget for the 2008 attainment year is represented by onroad VOC and NO<sub>x</sub> emissions for the Phoenix-Mesa modeling domain on the peak episode day in June 2008 of 72.3 metric tons per day of VOC and 145.5 metric tons per day of NO<sub>x</sub>. MAG used geographic information systems (GIS) to separate the onroad mobile emissions from the Phoenix-Mesa 8-hour ozone nonattainment area from the modeling domain, resulting in the estimated 2008 MVEB of 67.9 metric tons per day of VOC and 138.2 metric tons per day of NO<sub>x</sub>.

##### 3. Proposed Action on the Motor Vehicle Emission Budgets

Based on our evaluation of the 2007 Ozone Plan and the budgets contained in it, which reflect all motor vehicle control measures contained in the attainment and RFP demonstration, we are proposing to approve the 2008 MVEB.

#### V. EPA's Proposed Action

For the reasons discussed above, EPA is proposing to approve Arizona's submitted SIP for attaining the 1997 8-Hour Ozone Standard in the Phoenix-Mesa nonattainment area.

Specifically, EPA is proposing to approve under CAA section 110(k)(3) the following elements of the 2007 Ozone Plan for Phoenix-Mesa:

1. The 2002 base year emission inventory as meeting the requirements

of CAA section 172(c)(3) and 40 CFR 51.915;

2. The reasonably available control measures demonstration as meeting the requirements of CAA section 172(c)(1) and 40 CFR 51.912(d);

3. The reasonable further progress demonstration as meeting the requirements of CAA section 172(c)(2) and 40 CFR 51.910;

4. The attainment demonstration as meeting the requirements of CAA section 172(c)(1) and 40 CFR 51.908;

5. The contingency measures for failure to make RFP or to attain as meeting the requirements of CAA section 172(c)(9); and

6. The motor vehicle emission budgets for the attainment year of 2008, which are derived from the attainment demonstration, as meeting the requirements of CAA section 176(c) and 40 CFR part 93, subpart A.

## VI. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);

- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and

- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

### List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Ozone, Nitrogen Dioxide, Volatile Organic Compounds.

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

Dated: March 30, 2012.

Keith Takata,

Acting Regional Administrator, EPA Region IX.

[FR Doc. 2012-8729 Filed 4-10-12; 8:45 am]

BILLING CODE 6560-50-P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R10-OAR-2010-0724, FRL-9657-3]

#### Approval and Promulgation of Implementation Plans; Idaho: Infrastructure Requirements for the 1997 8-Hour Ozone National Ambient Air Quality Standard; Prevention of Significant Deterioration Greenhouse Gas Permitting Authority and Tailoring Rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

**SUMMARY:** EPA is proposing to approve the State Implementation Plan (SIP) submittals from the State of Idaho demonstrating that the Idaho SIP meets the requirements of section 110(a)(1) and (2) of the Clean Air Act (CAA) for the National Ambient Air Quality Standard (NAAQS) promulgated for ozone on July 18, 1997. EPA is

proposing to find that the current Idaho SIP meets the following 110(a)(2) infrastructure elements for the 1997 8-hour ozone NAAQS: (A), (B), (C), (D)(ii), (E)(i), (E)(iii), (F), (G), (H), (J), (K), (L), and (M). EPA is taking no action on CAA section 110(a)(2)(E)(ii) at this time. We will address the requirements of this sub-element in a separate action. EPA is also proposing to approve a SIP revision that applies Idaho's Prevention of Significant Deterioration (PSD) Program to greenhouse gas (GHG) emitting sources above certain thresholds, updates Idaho's SIP to incorporate by reference revised versions of specific federal regulations, and removes unnecessary language from the SIP due to the incorporation by reference of the federal NAAQS and PSD regulations. In addition, EPA is proposing to rescind the Federal Implementation Plan (FIP) put in place to ensure the availability of a permitting authority for greenhouse gas emitting sources in Idaho.

**DATES:** Comments must be received on or before May 11, 2012.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R10-OAR-2010-0724, by any of the following methods:

- [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
- **Email:** R10-Public\_Comments@epa.gov.
- **Mail:** Kristin Hall, EPA Region 10, Office of Air, Waste and Toxics (AWT-107), 1200 Sixth Avenue, Suite 900, Seattle, WA 98101.
- **Hand Delivery/Courier:** EPA Region 10, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. Attention: Kristin Hall, Office of Air, Waste and Toxics, AWT-107. Such deliveries are only accepted during normal hours of operation, and special arrangements should be made for deliveries of boxed information.

**Instructions:** Direct your comments to Docket ID No. EPA-R10-OAR-2010-0724. EPA's policy is that all comments received 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 information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or email. The [www.regulations.gov](http://www.regulations.gov) Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless

CMAQ DETAILED PROJECT LISTING REPORT ( FY 2011 )

17-April-2012

Fiscal Year = '2011' and Status Selection Criteria = 'Approved by Division' and State = 'Arizona'

STATE	Apportionments	APPORTION. AMOUNT	OBLIGATED AMOUNT	OBLIG. %	PROJECT AMOUNT	PROJECT TYPE	PROJECT TITLE & DESCRIPTION	VOC (Kg/Day)	CO (Kg/Day)	NOx (Kg/Day)	PM 10 (Kg/Day)	PM 2.5 (Kg/Day)	CO2 (MT/Day)	CONTINUING PROJECT?
Arizona		\$0	\$21,371,053	0 %										
Arizona					\$2,075,431	I/M and Other TCMS	El Mirage: Pave Dirt Roads Pave 125th and 127th Ave: Varney Rd to Peoria; and Dysart Ranchettes area: Varney Rd Peoria Ave Dysart Rd and El Mirage				344			
Arizona					\$1,893,290	I/M and Other TCMS	Phoenix: Pave dirt alleys Pave 44 miles of dirt alleys				170			
Arizona					\$1,602,302	I/M and Other TCMS	Surprise: Pave dirt road Pave unpaved roads West of 219th Ave from Pinnacle Peak to Deer Valley				240			
Arizona					\$900,000	I/M and Other TCMS	Maricopa Association of Governments: PM-10 certified street sweepers Purchase PM-10 certified street sweepers region wide				298			
Arizona					\$753,557	I/M and Other TCMS	Phoenix: Pave dirt alleys Pave 18 miles of dirt alleys				70			
Arizona					\$350,000	I/M and Other TCMS	Chandler: Pave Dirt Alleys Pave Dirt Alleys - ten miles at various locations				61			
Arizona					\$325,000	I/M and Other TCMS	Chandler: Pave unpaved road Pave unpaved road on Commonwealth Ave from Hamilton to Ithica				12			
Arizona					\$194,253	I/M and Other TCMS	Maricopa County: Pave dirt road Design pave dirt road on 87th Avenue from Deer Valley Rd to Peoria city limits (Via Montoya Rd)				25			
Arizona					\$80,155	I/M and Other TCMS	Cave Creek: Pave dirt road Design pave unpaved project on Morning Star Road				46			

**CMAQ DETAILED PROJECT LISTING REPORT ( FY 2011 )**

17-April-2012

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Arizona					\$2,166,660	Pedestrian/Bicycle	Mesa: Multi-use Path Construct Consolidated Canal Multi-use Path from Lindsay to Baseline	1	1	1	1			
Arizona					\$800,000	Pedestrian/Bicycle	Arizona Department of Transportation: Install sidewalks and other related work Install curb and gutter and sidewalks along Interstate-17 southbound frontage road between Bethany Home Rd and Northern Ave	1	1	1	1			
Arizona					\$700,000	Pedestrian/Bicycle	Peoria: Multi-use Underpass Acquire right of way design and construct multi-use underpass crossings on New River Trail at Peoria and Olive avenues	1	1	1	1			
Arizona					\$530,000	Pedestrian/Bicycle	Maricopa County: Bike Lanes and Shoulders Construct bike lanes and shoulders on both sides of Forrest Road from McDowell Mountain Rd to Rio Verde Dr	1	1	1	4			
Arizona					\$229,600	Pedestrian/Bicycle	Chandler: Multi-use path Install two pedestrian actuated signals on the Consolidated Canal multi-use path from Germann to Chandler Heights Rd	1	1	1	1			
Arizona					\$274,565	Shared Ride	Maricopa Association of Governments: Regional Rideshare and Telework Program Regional Rideshare and Telework Program	76	977	226	96			
Arizona					\$217,500	Shared Ride	Maricopa Association of Governments: Trip Reduction Program Trip Reduction Program	133	1,712	382	168			

**CMAQ DETAILED PROJECT LISTING REPORT ( FY 2011 )**

17-April-2012

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STATE	Apportionments	APPORTION. AMOUNT	OBLIGATED AMOUNT	OBLIG. %	PROJECT AMOUNT	PROJECT TYPE	PROJECT TITLE & DESCRIPTION	VOC (Kg/Day)	CO (Kg/Day)	NOx (Kg/Day)	PM 10 (Kg/Day)	PM 2.5 (Kg/Day)	CO2 (MT/Day)	CONTINUING PROJECT?
Arizona					\$135,000	Shared Ride	Maricopa Association of Governments: Travel Reduction Program Capitol Rideshare Program	1	11	2	1			
Arizona					\$3,697,913	Traffic Flow Improvements	Arizona Department of Transportation: Freeway Management System Construct Freeway Management System of dynamic message signs closed circuit television cameras traffic count stations fiber optic cable and associated components on Loop 202 from Loop 101 to Gilbert Rd	3	47	10	1			
Arizona					\$921,887	Traffic Flow Improvements	Mesa: Intelligent Transportation Systems project Install ITS Traffic Signal Conversions Phase 5 at Brown Rd and Lindsay Rd	2	13	7	1			
Arizona					\$700,000	Traffic Flow Improvements	Phoenix: Intelligent Transportation Systems project Construct regional ITS telecommunications expansion	29	284	96	17			
Arizona					\$665,000	Traffic Flow Improvements	Phoenix: Intelligent Transportation Systems project Construct regional fiber optic backbone phase B-1	3	29	10	2			
Arizona					\$382,200	Traffic Flow Improvements	Maricopa County: Intelligent Transportation Systems project Construct dynamic message signs on Bell Rd from 115th Ave to 55th Ave	1	4	1	1			
Arizona					\$354,410	Traffic Flow Improvements	Tempe: Intelligent Transportation Systems project Design and construct fiber optic cable installation citywide	7	65	24	2			

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Arizona					\$344,050	Traffic Flow Improvements	Chandler: Intelligent Transportation Systems project Install fiber optic cable for interconnecting traffic signals on Arizona Ave from the Traffic Management Center to Riggs Rd	1	5	2	1			
Arizona					\$239,880	Traffic Flow Improvements	Phoenix: Intelligent Transportation Systems project Develop ITS Strategic Plan	22	210	71	13			
Arizona					\$220,000	Traffic Flow Improvements	Arizona Department of Transportation: Freeway Management System Design Freeway Management System on SR 51 from Bell Rd to Loop 101	2	28	6	1			
Arizona					\$218,400	Traffic Flow Improvements	Tempe: Intelligent Transportation Systems project Install wireless communications and closed circuit television at various intersections	6	59	22	1			
Arizona					\$150,000	Traffic Flow Improvements	Surprise: Intelligent Transportation Systems project Construct fiber optic interconnection of traffic signals cameras and variable message signs on Bell Rd at US 60 to Surprise Traffic Management Center	2	24	8	1			
Arizona					\$150,000	Traffic Flow Improvements	Chandler: Intelligent Transportation Systems project Design fiber communications from signals on Ray and Elliot and Dobson connecting at Arizona Ave back to Traffic Management Center	1	12	5	1			
Arizona					\$100,000	Traffic Flow Improvements	Maricopa County: Intelligent Transportation Systems project Upgrade traffic signals and CCTV cameras at five different locations	1	4	2	1			

**CMAQ DETAILED PROJECT LISTING REPORT ( FY 2011 )**

17-April-2012

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Nationwide Totals . . . .		\$0	\$21,371,053	0 %										

States without ozone or CO Nonattainment or maintenance areas    QA - Qualitative Assessment    PR - Previously Reported    c - Changed benefit from previous year r