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January 4, 2007

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Stephen S. Cleveland, Goodyear City Manager, Chairman

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, January 11, 2007 - 1:30 p.m.  
MAG Office, Suite 200 - Saguaro Room  
302 North 1<sup>st</sup> Avenue, Phoenix

Please park in the garage underneath the building. Bring your ticket to the meeting; parking will be validated. For those using transit, the 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.

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 Ann Wimmer at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

Members of the MAG Air Quality Technical Advisory Committee may attend in person, via videoconference or by telephone conference call. Those attending by videoconference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference call are requested to call (602) 261-7510 between 1:25 p.m. and 1:30 p.m. on the date of the meeting. After the prompt, please enter the meeting ID number 27822 (on your telephone key pad) followed by the pound key. If you have a problem or require assistance, dial 0 after calling the number above.

Please be advised that under procedures approved by the MAG Regional Council, all MAG committees need to have a quorum to conduct the meeting. A quorum is a simple majority of the membership. If you are unable to attend the meeting, please make arrangements for a proxy from your entity to represent you.

A Voluntary Association of Local Governments in Maricopa County

City of Apache Junction ▲ City of Avondale ▲ Town of Buckeye ▲ Town of Carefree ▲ Town of Cave Creek ▲ City of Chandler ▲ City of El Mirage ▲ Fort McDowell Yavapai Nation ▲ Town of Fountain Hills ▲ Town of Gila Bend  
Gila River Indian Community ▲ Town of Gilbert ▲ City of Glendale ▲ City of Goodyear ▲ Town of Guadalupe ▲ City of Litchfield Park ▲ Maricopa County ▲ City of Mesa ▲ Town of Paradise Valley ▲ City of Peoria ▲ City of Phoenix  
Town of Queen Creek ▲ Salt River Pima-Maricopa Indian Community ▲ City of Scottsdale ▲ City of Surprise ▲ City of Tempe ▲ City of Tolleson ▲ Town of Wickenburg ▲ Town of Youngtown ▲ Arizona Department of Transportation

## TENTATIVE AGENDA

### COMMITTEE ACTION REQUESTED

1. Call to Order

2. Call to the Audience

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

3. Approval of the December 7, 2006 Meeting Minutes

4. Detailed List of Phoenix Paving Unpaved Road Projects Proposed for FY 2008 CMAQ Funding

On September 28, 2006, the MAG Air Quality Technical Advisory Committee made a recommendation that the Transportation Review Committee fund all of the PM-10 Paving Unpaved Road Projects submitted for CMAQ funding. For FY 2008, the City of Phoenix submitted a project to pave three miles of unpaved roads. A detailed list for paving 2.08 miles of unpaved roads has now been provided. Several of these projects are located in close proximity to the monitors with high PM-10 concentrations in the Salt River area.

Immediate action is needed to reduce PM-10 concentrations at the monitors and throughout the region. Three years of clean data at the

2. For information.

3. Review and approve the December 7, 2006 meeting minutes.

4. For information, discussion and possible action.

monitors are needed to be in attainment (2007-2009). The Air Quality Technical Advisory Committee may wish to make a recommendation to the Transportation Review Committee regarding the importance of these projects located close to the monitors. It is anticipated that the Transportation Review Committee will discuss the unpaved road projects at the January 25, 2007 meeting. Please refer to the enclosed material.

5. PM-10 Source Attribution and Deposition Study

There have been several exceedances of the 24-hour PM-10 standard in 2005 and 2006. The PM-10 Source Attribution and Deposition Study is 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 this study are T&B Systems and Sierra Research. From November 15, 2006-December 14, 2006, T&B Systems conducted extensive measurements in the Salt River area using state-of-the-art technologies. T&B Systems is now in the process of analyzing the data that was collected.

A presentation on the preliminary data and analysis from the study will be given by the consultants. The preliminary results will be useful to the Air Quality Technical Advisory Committee in developing effective control measures for the Five Percent Plan for PM-10. The results will be provided to Sierra Research for use in modeling attainment of the PM-10 standard.

5. For information and discussion.

6. Preliminary Draft Comprehensive List of Measures to Reduce PM-10 Particulate Matter

An important part of the preparation process for the Five Percent Plan for PM-10 is the consideration of air pollution control measures for possible implementation. To initiate this process, a Preliminary Draft Comprehensive List of Measures to Reduce PM-10 Particulate Matter was presented at the December 7, 2006 meeting. Additional comments and suggestions from the Committee are welcomed.

Based upon the discussion at the Committee meeting, information will be collected on the measures and a report will be prepared. The information will be presented at the February 1 and 15, 2007 meetings. It is anticipated that on March 1, 2007, the Air Quality Technical Advisory Committee would then recommend a Suggested List of Measures for the Five Percent Plan for PM-10 to the MAG Management Committee. Ultimately, following Regional Council approval, the Suggested List of Measures would be considered by the State and local governments for implementation. Please refer to the enclosed material.

7. Air Quality Modeling Approach for the Five Percent Plan for PM-10

The Clean Air Act requires that the Five Percent Plan for PM-10 include a five percent reduction in emissions each year until the standard is attained, an attainment modeling demonstration, and contingency measures. A modeling protocol which describes the modeling effort for the Five Percent Plan will be discussed by MAG. A combination of AERMOD and rollback modeling will be used.

6. For information and discussion.

7. For information and discussion.

8. Air Quality Modeling Approach for the Eight-Hour Ozone Plan for the Maricopa Nonattainment Area

As a Basic nonattainment area, the region has a June 15, 2009 attainment date for the eight-hour ozone standard. A plan is due by June 15, 2007. A status report will be given on the monitoring data and the regional modeling effort for the plan. The region has two years of data with no violating monitors.

9. Call for Future Agenda Items

The next meeting of the Committee has been tentatively scheduled for **Thursday, February 1, 2007 at 1:30 p.m.** The Chairman will invite the Committee members to suggest future agenda items.

8. For information and discussion.

9. For information and discussion.

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

Thursday, December 7, 2006  
MAG Office  
Phoenix, Arizona

MEMBERS PRESENT

Stephen Cleveland, City of Goodyear, Chairman  
\*Michael Powell, Avondale  
Michael Salisbury for Lucky Roberts, Buckeye  
#Jim Weiss, Chandler  
Jamie McCullough, El Mirage  
Lisa Taraborelli for Tami Ryall, Gilbert  
Doug Kukino, Glendale  
#Scott Bouchie, Mesa  
Gaye Knight, Phoenix  
\*Larry Person, Scottsdale  
#Antonio DeLaCruz, Surprise  
Oddvar Tveit, Tempe  
Larry Crisafulli for Walter Bouchard, Citizen Representative  
\*Bill Pfeifer, American Lung Association of Arizona  
\*Barbara Sprungl, Salt River Project  
Brian O'Donnell, Southwest Gas Corporation  
\*Jim Mikula, Arizona Public Service Company  
\*Gina Grey, Western States Petroleum Association  
Betsy Turner for Randi Alcott, Valley Metro  
Dave Berry, Arizona Motor Transport Association  
Jeannette Fish, Maricopa County Farm Bureau  
Russell Bowers, Arizona Rock Products Association  
\*Michelle Rill, Greater Phoenix Chamber of Commerce  
Amanda McGennis, Associated General Contractors  
Spencer Kamps for Connie Wilhelm-Garcia, Homebuilders Association of Central Arizona  
\*Stephen J. Andros, American Institute of Architects - Central Arizona  
#Mannie Carpenter, Valley Forward  
Patrick Clay, University of Arizona - Cooperative Extension  
Beverly Chenausky, Arizona Department of Transportation  
Peter Hyde, Arizona Department of Environmental Quality  
#Doris Lo for Wienke Tax, Environmental Protection Agency  
Jo Crumbaker, Maricopa County Air Quality Department  
\*Duane Yantorno, Arizona Department of Weights and Measures  
\*Ed Stillings, Federal Highway Administration  
\*Judi Nelson, Arizona State University  
Angela Cruz for B. Bobby Ramirez, Salt River Pima-Maricopa Indian Community  
\*David Rueckert, Citizen Representative

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

OTHERS PRESENT

Lindy Bauer, Maricopa Association of Governments  
Cathy Arthur, Maricopa Association of Governments  
Dean Giles, Maricopa Association of Governments  
Julie Hoffman, Maricopa Association of Governments  
Taejoo Shin, Maricopa Association of Governments  
Bob Downing, Maricopa County Air Quality Department  
Dena Konopka, Maricopa County Air Quality Department  
Matt Poppen, Maricopa County Air Quality Department  
Eric Raisanen, Maricopa County Air Quality Department  
Diane Arnst, Arizona Department of Environmental Quality  
Shane Kiesow, City of Apache Junction  
Robert St. John, City of Glendale  
Scott Di Biase, Pinal County  
Jim Klinker, Arizona Farm Bureau  
Steve Trussell, Arizona Rock Products Association  
Joel Nickel, Rinker Materials  
Frank Mendola, CEMEX  
Barbara Sylvester, Brown and Caldwell  
Andrea Martin, Arizona Department of Agriculture  
Alisa Schroder, Meritage Homes  
Ben Dowler, Engle Homes  
Dave Verhelst, Beazer Homes  
Greg Shively, Kitchell  
Cameron Flower, Kitchell  
Kim Furphy, Kitchell  
Ric Tobin, Lewis and Roca  
Kevin Rogers, Farmer  
#Colleen McKaughan, Environmental Protection Agency  
#Vic Dugan, Exxon Mobil

1. Call to Order

A meeting of the MAG Air Quality Technical Advisory Committee was conducted on December 7, 2006. Stephen Cleveland, City of Goodyear, Chair, called the meeting to order at approximately 1:30 p.m. Scott Bouchie, City of Mesa; Jim Weiss, City of Chandler; Antonio DeLaCruz, City of Surprise; Mannie Carpenter, Valley Forward; Doris Lo, Environmental Protection Agency; Colleen McKaughan, Environmental Protection Agency; and Vic Dugan, Exxon Mobil, attended the meeting via telephone conference call.

2. Call to the Audience

Mr. Cleveland 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 table adjacent to the doorway 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. Cleveland noted that no public comment cards had been received.

3. Approval of the October 26, 2006 Meeting Minutes

The Committee reviewed the minutes from the October 26, 2006 meeting. Russell Bowers, Arizona Rock Products Association, moved and Amanda McGennis, Associated General Contractors, seconded and the motion to approve the October 26, 2006 meeting minutes carried unanimously.

4. Preliminary 2005 PM-10 Emissions Inventory

Bob Downing, Maricopa County Air Quality Department, gave a presentation on the Preliminary 2005 PM-10 Emissions Inventory for the PM-10 Nonattainment Area. He stated that the source categories are stationary point sources, area sources, nonroad mobile sources, and onroad mobile sources. Mr. Downing discussed the methods used to develop the preliminary 2005 PM-10 emissions estimates and the percent of total emissions for each source category. He mentioned that the mobile source emissions are typically developed by MAG using approved Environmental Protection Agency (EPA) models. Mr. Downing stated that the estimates are very preliminary.

Brian O'Donnell, Southwest Gas Corporation, inquired about the road construction category. Mr. Downing stated that an example in his presentation should clarify what is included in the road construction category.

Mr. Downing mentioned that there were new methodologies used in the Preliminary 2005 PM-10 Emissions Inventory. He stated that the last emissions inventory was completed in 2002. One of the improvements made was addressing source categories not included in earlier inventories such as travel on unpaved parking lots and farm roads, offroad recreational vehicles fugitive dust, and leaf blowers fugitive dust. Mr. Downing provided an example of how the emissions from travel on farm roads were derived including the assumptions. He stated that Maricopa County is currently preparing the documentation for the emissions inventory.

Mr. Downing stated that in the Preliminary 2005 PM-10 Emissions Inventory new or refined emission factors, better data sources, and new methodologies were used for categories such as construction, harvesting, wildfires, etc. He provided an example of how emissions from construction are derived using the latest improvements. Mr. Downing mentioned that another area of

improvement is the treatment of windblown fugitive dust. He stated that Maricopa County has contracted with ENVIRON Corporation to model windblown fugitive dust emissions and initial results are expected by the end of December. Mr. Downing mentioned that a draft of the 2005 PM-10 Emissions Inventory with refined figures will be available in January 2007 with an opportunity for review and comment. He stated that the 2005 PM-10 Emissions Inventory needs to be submitted to EPA by June 1, 2007.

Mr. Bowers commented on the travel on unpaved parking lots category. Mr. Downing replied that travel on unpaved parking lots has been quantified for all of Maricopa County and the PM-10 Nonattainment Area. He added that Maricopa County has tried to quantify potentially controllable sources that have not been assessed in the past. Mr. Bowers referred to the construction example presented and inquired about a critical difference in requirements between 2002 and 2005 in terms of permits and acreage under construction. Mr. Downing responded that once the data was assembled it showed that the number of permits and acreage under construction are not linear. In general, the average acreage under construction was smaller in 2005 than 2002. Mr. Bowers commented that the average acreage would be rapidly decreasing and that there would be a lot more permits. He expressed concern about the use of the number of permits to estimate dust emissions because of the difference between the 2002 and 2005 number of permits.

Jo Crumbaker, Maricopa County Air Quality Department, stated that the criteria for requiring a permit has remained constant and that the number of permits are included in the 2005 PM-10 Emissions Inventory as a data point. She added that the number of permits was not used in the calculation and that the acreage involved is the critical value that comes from the collection of permits. Mr. Bowers asked if there would have been a linear relationship between the amount of dust per acre in a 2002 permit and a 2005 permit. Mr. Downing replied that would be correct if the EPA guidance on calculating emissions for the source did not change. He added that Maricopa County is working to document the assumptions for the Preliminary 2005 PM-10 Emissions Inventory.

Mr. O'Donnell commented that Maricopa County may be able to determine the emissions based on the number of residential units. Ms. Crumbaker replied that Maricopa County is charged with using the most current science available at the time an emissions inventory is being prepared. She stated that the 2002 PM-10 Emissions Inventory did not have a regulatory use. Ms. Crumbaker added that significant resources are being devoted to develop the 2005 PM-10 Emissions Inventory which will be used for the Five Percent Plan for PM-10. Mr. Bowers inquired about an equivalency between 2002 and 2005. Mr. Downing replied that Maricopa County would like to conduct sensitivity analyses on particular source categories and variables; however, there are time and resource issues. Mr. Bowers commented that it is possible that the 2002 PM-10 Emissions Inventory should not be evaluated in the same context as the 2005 PM-10 Emissions Inventory. Mr. Downing responded that the 2005 PM-10 Emissions Inventory will stand on its own and the information presented today is preliminary.

Ms. McGennis inquired about the basis of the construction emissions. Ms. Crumbaker replied that the emission factor is acreage based. The data associated with a permit gives an indication of the type of construction site so it can be categorized and associated with the appropriate emission factor. Ms. McGennis asked about the emission factor. Mr. Downing responded that EPA guidelines have different emission factors for different types of construction. Ms. McGennis inquired about the emission factors on a per acre basis. Mr. Downing replied that he will report back with the emission

factors. Ms. McGennis expressed concern that the formula may determine an amount of acreage higher than the actual acreage. Mr. Downing responded that Maricopa County has been working to avoid that issue by reviewing the geographic information included with every permit record in the database.

Dave Berry, Arizona Motor Transport Association, asked if the 2005 PM-10 emissions presented were based on actual air quality measurements. Mr. Downing responded that there is a variety. For example, the industrial source emissions are derived from detailed annual surveys. Mr. Berry asked if 2005 is the base for five percent reductions. Lindy Bauer, Maricopa Association of Governments, replied that the 2005 PM-10 Emissions Inventory is used as the basis for projecting the 2007, 2008, and 2009 emissions inventories. She added that Cathy Arthur, Maricopa Association of Governments, will discuss the projected inventories under the next agenda item. Ms. Bauer stated that the 2005 PM-10 Emissions Inventory is a base starting point from which to develop an inventory to start the five percent reductions. Mr. Berry asked if the 2005 PM-10 Emissions Inventory will influence the starting point. Ms. Bauer responded that the 2005 PM-10 Emissions Inventory is the base and will influence the emissions inventories for the five percent reductions. Mr. Berry gave an example of an assumption that construction remains constant, but in fact it decreases in 2007, 2008, and 2009. He asked if the lower emissions would count toward emission reductions. Ms. Bauer replied that the construction category remained constant for 2007, 2008, and 2009 as it was in 2005. She added that it is difficult to predict economic activity. Mr. Berry commented that if construction decreases, there would be less emissions which would help with reductions.

Peter Hyde, Arizona Department of Environmental Quality, asked if the emissions in the nonroad category are limited to exhaust and if the dust generated by this equipment is listed in the construction categories. Mr. Downing responded that the nonroad category is exhaust emissions only. Mr. Hyde commented that the 2002 PM-10 Emissions Inventory states that 25 percent, excluding windblown dust, is construction. He mentioned that the Preliminary 2005 PM-10 Emissions Inventory shows 50 percent of PM-10 emissions in 2005 came from construction. Mr. Hyde added that residential and commercial construction were approximately five percent in the Salt River State Implementation Plan (SIP) for PM-10. Mr. Downing replied that the 2005 PM-10 Emissions Inventory is still very preliminary and does not include windblown dust.

Spencer Kamps, Homebuilders Association of Central Arizona, inquired about the increase in construction emissions from approximately 33,000 tons for 2002 to about 43,000 tons in 2005. Mr. Downing responded that there are changes in assumptions about average duration of different types of projects and emission factors. He added that Maricopa County is preparing the documentation for the changes. Mr. Kamps commented that construction has increased by 32 percent in terms of acreage from 2002 to 2005 and inquired about the changes. Mr. Downing replied that the emission factor for road construction has changed. Mr. Kamps commented on the approximate 150 percent increase in construction PM-10 emissions from 2002 to 2005 according to the emissions inventory. Mr. Downing responded that the rule effectiveness factor is also part of the documentation that Maricopa County is preparing. Mr. Kamps asked for the rule effectiveness factor. Mr. Cleveland requested that the discussion continue after the meeting.

Mr. Kamps asked if the changes proposed in the Salt River SIP and the increased enforcement for construction were factored into the Preliminary 2005 PM-10 Emissions Inventory. Mr. Downing replied that would be included to the extent that they were factored into the rule effectiveness numbers provided. Ms. Crumbaker stated that the study is not completed. She added that Maricopa

County has chosen to use a conservative assumption in the Preliminary 2005 PM-10 Emissions Inventory. Ms. Crumbaker mentioned that the documentation will be completed and made available. She stated that some factors used in 2002, including the influence of administrative violations on the emissions, have been removed in calculating rule effectiveness for 2005.

Mannie Carpenter, Valley Forward, inquired about the significance of biogenic sources. Mr. Downing responded that Maricopa County is working on PM-10 and that biogenics will be included when similar studies are prepared for ozone precursors and nitrogen oxides (NOx). He added that biogenics are not a significant source of PM-10 emissions. Mr. Carpenter referred to a study funded by the Arizona Department of Environmental Quality (ADEQ) regarding the identification of sources of particulate matter at monitoring stations. Mr. Downing replied that he will consult with ADEQ.

Ms. McGennis asked if Maricopa County will accept input on the preliminary data. Mr. Downing responded that Maricopa County wanted to provide the Committee with a snapshot of where the 2005 PM-10 Emissions Inventory is now. He added that the emissions inventory along with the documentation will be provided in January 2007 and input is welcomed. Ms. McGennis asked if the 2005 PM-10 emissions will decrease. Mr. Downing replied that the Preliminary 2005 PM-10 Emissions Inventory will change before it is made available in January 2007.

Gaye Knight, City of Phoenix, suggested that Maricopa County work with ADEQ and MAG before the 2005 PM-10 Emissions Inventory is released. Mr. Downing responded that Maricopa County has been and will continue to work closely with ADEQ and MAG.

Mr. Kamps asked if any distinction was made between controlled and uncontrolled sources. Mr. Downing replied that if there is a baghouse, control efficiencies and estimates were taken into consideration. He added that the rule effectiveness study was also addressed. Mr. Cleveland thanked Mr. Downing for his presentation and encouraged everyone to provide input.

5. Preliminary Projected 2007, 2008 and 2009 PM-10 Emissions Inventories

Ms. Arthur provided an overview of the Preliminary Projected 2007, 2008, and 2009 PM-10 Emissions Inventories. She discussed the PM-10 exceedances for 2006 and indicated that some of the days are being considered as natural events. Ms. McGennis asked if the data is flagged at all monitors on the dates being considered. Ms. Arthur replied that if any one monitor had an exceedance on the days mentioned, then it would be flagged. She added that ADEQ is looking at elevated readings across the region even if the monitors do not go over the PM-10 standard to determine patterns. Diane Arnst, Arizona Department of Environmental Quality, clarified that EPA needs to concur before the data is flagged. Ms. Arthur mentioned that ADEQ conducts an extensive analysis and submits the documentation to EPA for concurrence. Ms. Arnst stated that the dates have been submitted to EPA and ADEQ is now waiting for concurrence.

Ms. Arthur stated that the reason for the Five Percent Plan for PM-10 is that the standard was not met by December 2006, as indicated in the Serious Area Particulate Plan for PM-10. She mentioned that the 2007, 2008, and 2009 emissions are preliminary since they are based on the Preliminary 2005 PM-10 Emissions Inventory. Ms. Arthur added that these projections exclude windblown dust at this point. She indicated that the growth factors are based on the latest approved socioeconomic projections approved in June 2003 which will be updated in the spring of 2007. Ms. Arthur stated that since the region did not attain the PM-10 standard by December 31, 2006, the region needs to submit a Five Percent Plan for PM-10 by December 31, 2007 that demonstrates five percent

reductions per year in emissions from the date of submission, according to the Clean Air Act. Therefore, 2007 is the base year for five percent reductions. She added that due to the three year data requirement, the earliest the region could attain the PM-10 standard would be 2009.

Mr. Berry inquired about what would happen if the PM-10 standard is not met in 2009. Ms. Arthur replied that the region will not be able to attain the PM-10 standard by 2009 if violations continue at the monitors in 2007. She added that if violations occur in 2007, five percent reductions would be required for 2010 with that being the new attainment year.

Ms. Arthur mentioned that the Five Percent Plan for PM-10 will use the final 2005 PM-10 periodic emissions prepared by Maricopa County to project the emissions inventories for 2007, 2008, and 2009. She indicated that if the earliest attainment year is 2009, control measures in the Five Percent Plan must reduce 2008 emissions to 95 percent or less of 2007 emissions and 2009 emissions to 90 percent or less of 2007 emissions. Ms. Arthur added that if the earliest attainment year becomes 2010, 2010 emissions would need to be reduced to 85 percent or less of 2007 emissions.

Mr. Berry asked if five percent reductions would be required in 2009 if the region was able to get 10 percent reduction in 2008. Ms. Arthur replied that the benefit can be carried forward as long as it is before the benefit is due. Mr. Kamps inquired about the number of years five percent reductions would be required. Ms. Arthur responded that if the monitors are clean beginning January 1, 2007 then five percent reductions would be required for 2008 and 2009. If violations continue in 2007, a five percent reduction would also be required for 2010.

Ms. Arthur discussed the growth factors prepared for 2007, 2008, and 2009 relative to the Preliminary 2005 PM-10 Emissions Inventory. Mr. Berry asked if changes to the growth factors based on new information would count toward the five percent reductions. Ms. Arthur replied that since the emissions are projected, it is unknown what the actual changes will be in 2008 and 2009 when the Five Percent Plan for PM-10 is submitted in 2007. Ms. Arthur stated that the preliminary projected emissions for 2007 already include the control measures from the Serious Area Particulate Plan for PM-10. She mentioned that additional control measures are necessary to reduce emissions by five percent between 2007 and 2008, and 2008 and 2009. Mr. Berry inquired about the possibility of amending the Five Percent Plan for PM-10 based on new information. Ms. Arthur responded that amendments are possible; however, five percent emission reductions per year need to be shown in the Five Percent Plan for PM-10 submitted in 2007 in order for it to be approved by EPA.

Jeannette Fish, Maricopa County Farm Bureau, asked if credit would be given if actual emissions are less than the emissions projected. Ms. Arthur replied that the Five Percent Plan for PM-10 must include all controls necessary to reduce emissions by five percent per year. Additional reductions, beyond those anticipated, would help in attainment at the monitors.

Mr. Cleveland inquired about reductions being slightly more than five percent. Ms. Arthur responded that 5.3 to 5.4 percent is the actual annual rate of PM-10 emission reductions necessary per year since emissions are increasing in 2008 and 2009. She mentioned that there is little difference in the distribution by source between the preliminary 2005 and projected 2007, 2008, and 2009 emissions inventories. Ms. Arthur discussed the anticipated improvements to the 2007, 2008, and 2009 PM-10 emissions for the Five Percent Plan. She indicated that any deviations from the final 2005 periodic emissions inventory will be described and justified in the Technical Support Document for the Plan.

Mr. Hyde inquired about other five percent plans nationwide. Ms. Arthur replied that San Joaquin Valley is the only other area to prepare a five percent plan. She mentioned that San Joaquin did not submit a serious area plan and prepared a five percent plan with five percent reductions per year from 2002 to 2010. Ms. Arthur added that San Joaquin was able to demonstrate five percent reductions per year by using NOx reductions attributable to the California new car emission control program. They traded off PM-10 reductions for NOx reductions because NOx is one of the causes of PM-10 pollution in San Joaquin. Ms. Arthur noted that the PM-10 problem in this region is caused by fugitive dust, not NOx.

Mr. Berry inquired about the trackout included in the paved road fugitive dust category. Ms. Arthur replied that the trackout is from all sources and that the paved road emission formula looks at the silt loading on the road. Mr. Berry asked for clarification that construction trackout is not included in the construction source emissions. Ms. Arthur responded that is correct.

6. Preliminary Draft Comprehensive List of Measures to Reduce PM-10 Particulate Matter

Ms. Bauer thanked the Committee for the comments on the emissions inventories. She mentioned that many times the emissions inventories do change and that plan revisions can be made at any time to EPA. Ms. Bauer discussed the challenges of the Five Percent Plan for PM-10.

Ms. Bauer presented the Preliminary Draft Comprehensive List of Measures to Reduce PM-10 Particulate Matter. She stated that information has been provided to the Committee throughout the year to serve as a foundation for the Measure Selection Process. Ms. Bauer discussed the Measure Selection Process and indicated that this is the starting point. She mentioned that MAG has been working with the parties to the Air Quality Memorandum of Agreement which includes Maricopa County, the Arizona Department of Transportation, and ADEQ.

Ms. Bauer discussed the preliminary draft measures and indicated that comments are welcomed. She stated that Sierra Research will provide descriptive information on the measures to the Committee for consideration on February 1, 2007 and February 15, 2007. On March 1, 2007, the Committee may make a recommendation on a Suggested List of Measures and justification for measures not recommended may also be provided by the Committee. She stated that once the measures are approved by the Regional Council, the measures under local government authority, for example, would be given to local governments to consider for implementation. According to state law, each council adopts a resolution committing to implement the measures it finds feasible. Ms. Bauer mentioned that the committed measures are provided to MAG and then modeled. She added that only committed measures become part of the adopted plan. Ms. Bauer stated that once a measure is included in the Five Percent Plan for PM-10, it becomes a legally binding commitment to implement and is federally enforceable. The commitments are due to MAG in June 2007.

Ms. Bauer stated that recommendations made by the Committee will go to the MAG Management Committee and then the Regional Council. She mentioned that the Regional Council cannot commit any entity to implement any measure. Ms. Bauer described how local governments commit to implement measures. Mr. Berry asked if there is a way to accelerate the decision point for control measures since the date is late in the legislative session.

Ms. Bauer described the Preliminary Draft Comprehensive List of Measures to Reduce PM-10 Particulate Matter. She stated that MAG met with the agricultural representatives once it was determined that a Five Percent Plan for PM-10 would be required. Ms. Bauer mentioned that the

Governor's Agricultural Best Management Practices (BMPs) Committee has been meeting and formed a technical working group that is in the process of evaluating potential control measures. She added that additional information will be provided under the next agenda item. Ms. Bauer discussed the preliminary draft measures for the fugitive dust control rules category and indicated that some of the preliminary draft measures are from Clark County (Las Vegas, Nevada).

Mr. Kamps inquired about the origin of the measures and commented on the emissions inventories showing construction increased by 150 percent. He mentioned that the preliminary draft measures will not reduce PM-10 concentrations at the monitors since the Salt River SIP for PM-10 proved construction is not the problem. Ms. Bauer responded that the preliminary draft measures list was compiled by MAG staff. She added that MAG met with the Air Quality Memorandum of Agreement parties and the list of measures is a starting point. Ms. Bauer mentioned that comments from the Committee on the preliminary draft measures are welcomed.

Mr. Kamps commented that the focus is not on the monitors, which is the problem. He added that sources in the Salt River Area are listed as low impact in the table of preliminary draft measures and everything related to construction is high impact. Mr. Kamps commented on the disconnect. Ms. Bauer replied that it is important to address the PM-10 problem at the monitors. She stated that the emissions inventories are regional. For example, a source could be one percent of the regional inventory and 60 percent at a monitor. Ms. Bauer mentioned the MAG PM-10 Source Attribution and Deposition Study which will shed light on the sources that are actually causing the problem at the monitors. She concurred with Mr. Kamps that the problem at the monitors must be addressed. Ms. Bauer stated that measures may have a small impact at the monitors and a higher impact in how the five percent reductions in emissions must be calculated. She added that five percent reductions in emissions, modeling attainment demonstration, and attainment at the monitors must all be addressed in the Five Percent Plan for PM-10.

Mr. Kamps asked how increased fines would help the region attain the PM-10 standard. He commented on the amount of fines paid per month and the region is still not in attainment. Ms. Bauer responded that there are various sources that receive Notices of Violation from Maricopa County and the thinking is that increased fines would be a deterrent to violating. Mr. Kamps asked how construction control measures would help achieve attainment at the monitors when it is shown to not be a problem in the Salt River SIP for PM-10. Ms. Bauer replied that the PM-10 Source Attribution and Deposition Study will determine where the particles are coming from that are causing the region to go over the PM-10 standard at the monitors.

Mr. Kamps expressed concern about little background information on the preliminary emissions inventories that increase construction by 150 percent, the preliminary draft of measures that will change, having no information about the sources of the problem at the monitors, and only having a few meetings to discuss the issues before a decision needs to be made at the March 1, 2007 meeting. Ms. Bauer responded that more meetings and/or workshops could be scheduled. Mr. Kamps commented that the problem at the monitors needs to be fixed. Mr. Cleveland encouraged discussion after the meeting.

Ms. McGennis stated that she has reviewed the Clark County Rule in how the region plans to reach attainment. She mentioned that the trackout requirement in Clark County is 50 feet not 25 feet and the dust manager is on site only when there is construction activity. Ms. McGennis said that the construction activity does have to be monitored for stabilization 24 hours a day/seven days a week.

She stated that there are some pluses to the Clark County Program but there are some things being done in this region that are far more stringent than Clark County considered.

Ms. Bauer discussed the preliminary draft measures for the industry and nonroad activities categories. Beverly Chenausky, Arizona Department of Transportation, commented that there is about eight percent of the emissions inventory that could benefit from programs that reduce NOx. She suggested looking at the monitor area to determine if nonroad sources are a larger portion of the problem and getting dual benefit from some of the programs for NOx and PM-10 in the nonroad category. Ms. Chenausky referred to the preliminary draft measure to create a fund to provide incentives to retrofit nonroad diesel engines and encourage early replacements with advanced technologies. She stated that CMAQ is already a funding source. Ms. Chenausky commented that the localized effect could be great.

Vic Dugan, Exxon Mobil, inquired if the preliminary draft measure to update the statutes to require ultra-low sulfur diesel fuels for nonroad equipment refers to EPA diesel. Ms. Bauer responded that is correct. Mr. Dugan asked if Sierra Research will be assisting MAG on the measure and if issues such as cost and supply will be considered. Ms. Bauer replied that Sierra Research will provide descriptions of the measures for the Committee and that typically cost and supply information is considered when evaluating fuels. Mr. Dugan asked if the measure would have to go to the Legislature for approval. Ms. Bauer replied that is correct.

Ms. Bauer discussed the remaining preliminary draft measures in the following categories: paved roads, unpaved parking lots, unpaved roads, unpaved shoulders, unpaved access points, and vacant lots. She stated that this is the starting point for the measures and that some indication is given on the impact of the measures; however, it is subject to change pending additional data and a refined emissions inventory.

Mr. Bowers inquired about the measures in the Serious Area Particulate Plan for PM-10. Ms. Bauer responded that there are 77 control measures in the Serious Area Particulate Plan for PM-10 that are in the process of being implemented. Mr. Bowers commented that if the preliminary draft measures were all approved, there would be over 30 more control measures. Ms. Bauer stated that if commitments were received from all 30 plus measures, then they would be included in the Five Percent Plan for PM-10. She mentioned that the right committed measures need to be included in the plan.

Mr. Bowers stated that there were a few dates in 2005 that were candidates for flagging and then the winter inversion resulted in many more exceedances. He inquired about the number of exceedances before 2005. Mr. Bowers commented on a correlation between the implementation of current measures and exceedances. Ms. Bauer replied that there was one exceedance in 2004. She added that the rain that year was very helpful. Mr. Bowers commented on the correlation between the exceedances and efforts to reduce PM-10. He referred to a previous discussion regarding a policy where the region could not plead inversions, inordinately high temperatures, and drought conditions as natural events. Mr. Bowers stated that natural events over which we have no control should be appealable. He added that SAFETEA-LU included specific language aimed at inordinately high temperatures, periods of drought, and inversion conditions as exclusions from exemptions to the Clean Air Act. Mr. Bowers mentioned the cost of employing more measures and stated that with the current measures being implemented there should have been a decrease in PM-10 exceedances. He expressed the importance of rain and natural events. He added that they will do all they can.

Mr. Hyde commented that an elevated PM-10 concentration at a monitor consists of three components: desert background, localized emissions, and regional urban emissions. He mentioned that there is no site in west central Phoenix that is not affected by emissions from the eastern part of the metropolitan area by at least 20 to 40 percent. Mr. Hyde stated that a sector may not be a problem in one area; however, the emissions do count downwind. He mentioned the necessity of having control measures effective throughout the PM-10 Nonattainment Area.

Ms. Arnst commented that exceptional events can also be flagged. She mentioned that another cost factor to the PM-10 problem is the health cost. Ms. Arnst stated that according to EPA one in 15 children under the age of 15 years has asthma. She mentioned that a significant portion of the population has cardiopulmonary disease and are having serious problems on days like today. Ms. Arnst discussed the medical care required and stated that it is not the number of control measures, but picking the measures that will give the most benefit.

7. Evaluation of Potential Agricultural Control Measures to Reduce PM-10

Ms. Fish provided an overview of the evaluation of potential agricultural control measures to reduce PM-10. She mentioned that Arizona Revised Statutes, Title 49-457 charged the Governor's Agricultural BMPs Committee to set parameters and conditions for an agricultural PM-10 general permit. Ms. Fish added that the effective date of the rule was December 31, 2001. She stated that items in the general permit were challenged and the Federal Court upheld the control measures as Best Available Control Measures and Most Stringent Measures at that time.

Ms. Fish discussed the agricultural PM-10 general permit. She mentioned that in the San Joaquin Valley, only farms 100 acres or more are controlled whereas in the Maricopa County PM-10 Nonattainment Area, farms 10 acres or more fall under the general permit requirements. Ms. Fish stated that at least one BMP is required from each of the three categories: tillage and harvest, noncropland, and cropland. She discussed the Best Management Practices for the three categories and the requirements for the farmers. Ms. Fish mentioned the consequences of noncompliance and the education efforts made to inform farmers of the Best Management Practices and the PM-10 problem. Ms. Fish stated that farmers were asked to take extra steps voluntarily. She added that many farms and nurseries have more than one BMP in place for each category.

Ms. Fish stated that the Governor's Agricultural BMPs Committee met in April 2006 to review the situation. A technical working group was formed to evaluate Conservation Management Practices (CMPs) adopted in San Joaquin Valley and Imperial Valley. She mentioned that twelve CMPs are being considered for possible addition to BMPs menu. Ms. Fish stated that the technical working group will be going to the Governor's Agricultural BMPs Committee in January 2007 to report the findings and make recommendations. She mentioned that integrated best management was selected number one as a conservation measure by the farmers in the San Joaquin Valley. Ms. Fish stated that agriculture's biggest contribution to PM-10 reduction is the ultimate sacrifice, farmland being developed, paved over, built on, never again to grow green, oxygen-producing plants. She mentioned looking at a five mile radius of the Durango and West 43<sup>rd</sup> Avenue monitors from 2004 and prior to now to see how much agriculture is no longer there.

Ms. Fish stated the professors from Texas A&M University have researched the federal reference method monitors for PM-10 and PM-2.5. She mentioned that EPA is looking at the findings seriously. Ms. Fish indicated that the research has found that in the presence of large particulate matter from agriculture and mining operations that these monitors tend to show particulate matter

concentrations much higher than the true concentration. She stated that for PM-10 it is two to three times higher because the larger particles are broken down and recorded more than once. For PM-2.5, there is an exponential difference.

8. Tentative 2007 Meeting Schedule for the MAG Air Quality Technical Advisory Committee

Mr. Cleveland stated that the Tentative 2007 Meeting Schedule for the MAG Air Quality Technical Advisory Committee has been prepared and was included in the agenda packet.

9. Call for Future Agenda Items

Mr. Cleveland announced that the next meeting of the Committee is tentatively scheduled for January 11, 2007. Mr. Kamps inquired about the agenda for the next meeting. Ms. Bauer replied that the consultants for the PM-10 Source Attribution and Deposition Study will have preliminary data to share with the Committee at the next meeting.

Mr. Berry suggested a workshop before the next meeting to brainstorm other possible control measures to determine what else can be done that might have a higher impact. Mr. Cleveland mentioned an earlier suggestion to meet with Mr. Downing to discuss data points and factors relating to the Preliminary 2005 PM-10 Emissions Inventory. Ms. Knight commented on the idea of a workshop and stated that some may be interested in hearing those discussions. She expressed appreciation for providing preliminary measures to the Committee early and allowing time for discussion.

Ms. McGennis commented that the number one benefit in Clark County was public outreach and education. She stated that there should be some accountability for Maricopa County dropping the ball on public outreach. Ms. McGennis mentioned that public outreach has been a very effective tool for Clark County. Ms. Crumbaker stated that billboards are scheduled to be up by January 1, 2007 and the formal news conference is scheduled for January 16, 2007 at 10:00 am. Ms. McGennis commented that there needs to be a stakeholder process. She offered to help with public input and outreach. Ms. Bauer stated that Clark County had an extremely impressive program. She mentioned that Clark County managed to stigmatize the dust so that people realized it is bad. Ms. Bauer stated that the Maricopa County Program will be very important. Ms. Crumbaker mentioned the monetary challenge. She stated that Clark County received \$32 million from their legislature for the program. With no further comments, the meeting was adjourned.



## City of Phoenix

OFFICE OF THE CITY MANAGER

January 4, 2007

Mr. Dennis Smith  
 Executive Director  
 Maricopa Association of Governments  
 302 N. 1<sup>st</sup> Avenue, Suite 300  
 Phoenix, AZ 85003

RE: CMAQ Funding Request - FY08

Dear Mr. Smith:

This letter requests a reconsideration of the City's application for CMAQ funds to pave three miles of unpaved roads in FY08. The total project budget is \$1,333,333 with \$933,333 from CMAQ funds.

In the MAG review process, this paving project fell below the cut-off for funding due to the air quality ranking for emission reductions. We request reconsideration of the September application because we are now able to provide more detailed information on the specific list of roads that will be paved. We believe that these projects will have much more direct impact on reducing emissions which contribute to the violations of the PM health standard in the Salt River area.

In response to the ongoing PM-10 problem, the City is conducting a comprehensive review of all existing rights-of-way to identify and prioritize the unpaved ROWs recently annexed by the City and ROW which is now being used as roads. While that analysis is still underway, we have currently identified more than two miles of unpaved roadways within the area where violations of the PM standard continue. The table below provides the current list of roads to be paved if the CMAQ funding is approved. Since we anticipate that other unpaved roadways will be identified in the general Salt River area, we have requested funding for a total of three miles to allow us to pave additional roadways as the ROW prioritization continues.

Roadway	Approximate Length (ft.)
Miami Street, 50th Ave Alignment to 49th Ave Alignment*	700
Superior Street, 50th Ave Alignment to 49th Ave Alignment*	700
38th Avenue Alignment, Lower Buckeye Road south to Miami Street Alignment	1,300
39th Avenue, south of Wier to south of Roeser	1,600
33rd Avenue, north of Buckeye Road to Hadley Street	1,000
West Bunker Lane, 7th Avenue to 6th Avenue	450
15th Avenue, north of Vineyard to south of Lydia alignment	875
21st Avenue, north of Vineyard to south of Alta Vista	875
20th Avenue, north of South Mountain Avenue	1,275

25th Avenue, from Lodge Drive to south of Sunrise	1,400
18th Street, south of Roeser Road	1,025
Other roadways to be determined as ROW analysis continues	4,640
<b>TOTAL (3 miles)</b>	<b>15,840</b>

\*Photos of Miami and Superior Avenue are attached.

Over the past several years, the City of Phoenix has invested nearly \$18 million for dust control measures. In 2000, the City completed a paving project of approximately 70 miles of unpaved roads using funds entirely from the City budget. That project addressed the complete inventory of unpaved roads identified at that time. We have also paved more than 50 parking lots, applied asphalt treatment to 265 miles of alleys, stabilized 12 acres in the Salt River, completed a major street improvement for 43<sup>rd</sup> Avenue South of Lower Buckeye, paved/stabilized 17 miles of shoulders in the Salt River area, and stabilized undeveloped City-owned land.

In addition, the City continues to aggressively implement programs to control dust from commercial parking lots, upgrade shoulder treatments, and train more than 1,500 City staff each year on dust control. We have also recently added stringent dust-control requirements for City construction projects.

We ask that MAG approve funding for this road paving project to help reduce emissions and reduce the health risks to the residents of the area.

If you have questions or require additional information, please feel to contact me. Thank you for the opportunity to submit these specific locations to MAG for air quality evaluation.

Sincerely,



Thomas E. Callow, P.E.  
Senior Executive Assistant to the City Manager

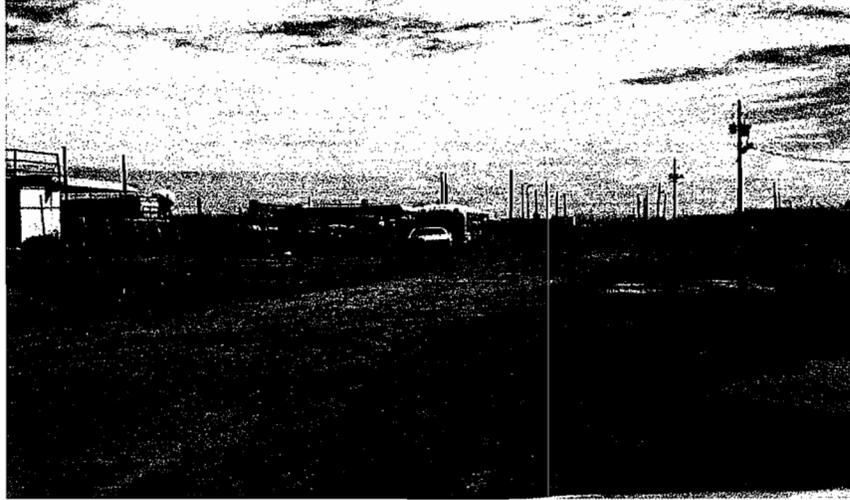
R:Callow/CMAQ letter Jan 2007.doc

#### Attachment

C: Frank Fairbanks  
Alton Washington  
Ross Blakley  
Don Herp  
Karen O'Regan

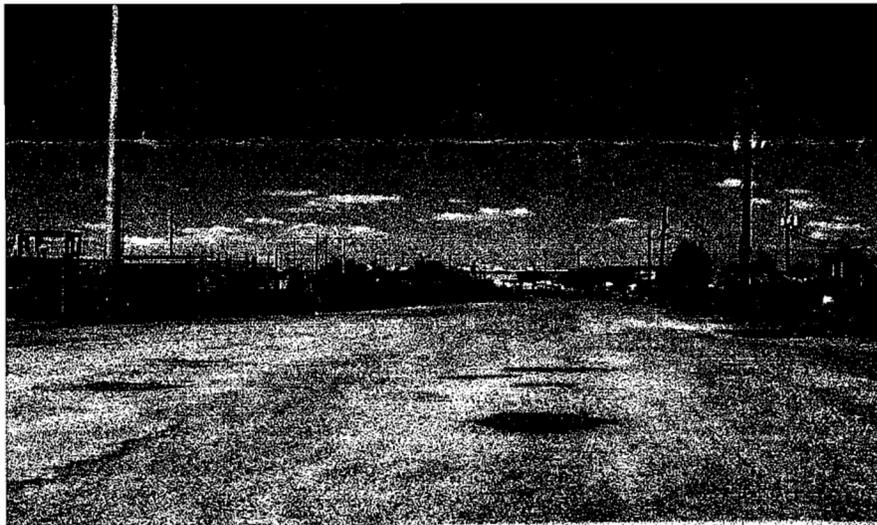
# Miami St. E of 51<sup>st</sup> Av

Looking E



# Superior Av E of 51<sup>st</sup> Av

Looking E




**MARICOPA  
ASSOCIATION of  
GOVERNMENTS**

302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003  
Phone (602) 254-6300 ▲ FAX (602) 254-6490  
E-mail: mag@mag.maricopa.gov ▲ Web site: www.mag.maricopa.gov

October 11, 2006

TO: Members of the MAG Transportation Review Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: REVISED TABLE FOR THE MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION ON A RANKING OF PROPOSED PM-10 PAVING UNPAVED ROAD PROJECTS FOR FY 2008 AND FY 2009 CMAQ FUNDING

On October 3, 2006, MAG distributed to members of the MAG Transportation Review Committee the MAG Air Quality Technical Advisory Committee recommendation on a ranking of Proposed PM-10 Paving Unpaved Road Projects for FY 2008 and FY 2009 CMAQ funding. A revised table has now been prepared to include a correction for the CMAQ funding amount requested for the FY 2008 City of El Mirage project (see attachment). The amount requested by El Mirage is \$993,154. The correction did not change the ranking of the projects.

The MAG Air Quality Technical Advisory Committee also recommended that the Transportation Review Committee fund all of the PM-10 Paving Unpaved Road Projects. The Regional Transportation Plan assumes the annual paving of at least ten miles of unpaved roads to reduce fugitive dust. Paving projects may include public, or publicly maintained unpaved roads, with weekday traffic volumes of 120 or more vehicles per day. The FY 2007-2011 MAG Transportation Improvement Program identifies \$2,000,000 in FY 2008 CMAQ funding and \$3,500,000 in FY 2009 CMAQ funding for Paving Unpaved Road Projects.

For FY 2008, four projects requesting approximately \$4.5 million in CMAQ funds were received. Also, for FY 2009 four projects requesting approximately \$4.1 million in CMAQ funds were received. Projects requests were due by September 8, 2006. MAG staff conducted an evaluation of the proposed Paving Unpaved Road Projects for estimated emission reductions and corresponding cost-effectiveness for FY 2008 and FY 2009 CMAQ funding. Following consideration of the information, the MAG Air Quality Technical Advisory Committee recommended the projects in order of cost effectiveness.

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

Attachment

**MAG Air Quality Technical Advisory Committee Recommendation  
Ranking of Proposed PM-10 Paving Unpaved Road Projects for FY 2008 CMAQ Funding**  
\$2.0 million available in FY 2008 of the FY 2007-2011 MAG Transportation Improvement Program

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction TOG (kg/day)	Emission Reduction NOx (kg/day)	Emission Reduction PM-10 (kg/day)	Emission Reduction Total (kg/day)	Cost Effectiveness (CMAQ funds /metric ton)	CMAQ Funds Requested	Total Cost
Litchfield Park	Paving of alleys in older portions of Litchfield Park	Pave unpaved alleys	2008	1.6	0	0	125	125	\$782	\$530,979*	\$758,541
Surprise	Roads in Saguaro View	Pave unpaved roads	2008	4.25	0	0	266	266	\$1,444	\$2,082,500	\$2,975,000
Phoenix	Roads within City of Phoenix	Pave unpaved roads	2008	3.0	0	0	78	78	\$2,200	\$933,333	\$1,333,333
El Mirage	Desert Cove Road (Dysart Rd. - El Mirage Rd.)	Pave unpaved roads	2008	1.0	0	0	67	67	\$2,740	\$993,154	\$1,418,792
										\$4,539,966	\$6,485,666

\* Revision includes a correction made by the City of Litchfield Park for CMAQ Funds requested of \$530,979 and the cost-effectiveness.

**MAG Air Quality Technical Advisory Committee Recommendation  
Ranking of Proposed PM-10 Paving Unpaved Road Projects for FY 2009 CMAQ Funding**  
\$3.5 million available in FY 2009 of the FY 2007-2011 MAG Transportation Improvement Program

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction TOG (kg/day)	Emission Reduction NOx (kg/day)	Emission Reduction PM-10 (kg/day)	Emission Reduction Total (kg/day)	Cost Effectiveness (CMAQ funds /metric ton)	CMAQ Funds Requested	Total Cost
Phoenix	Alleys within City of Phoenix	Pave unpaved alleys	2009	18.0	0	0	469	469	\$183	\$466,667	\$666,667
Surprise	Roads located west of 219 <sup>th</sup> Ave	Pave unpaved roads	2009	3.27	0	0	204	204	\$1,444	\$1,602,302	\$2,289,002
Phoenix	Roads within City of Phoenix	Pave unpaved roads	2009	3.0	0	0	78	78	\$2,475	\$1,050,000	\$1,500,000
El Mirage	125 <sup>th</sup> Ave and 127 <sup>th</sup> Ave (Varney Rd. - Peoria Ave)	Pave unpaved roads	2009	1.0	0	0	63	63	\$2,942	\$1,000,000	\$1,483,283
										\$4,118,969	\$5,938,952

**PRELIMINARY DRAFT COMPREHENSIVE LIST OF  
MEASURES TO REDUCE PM-10 PARTICULATE MATTER**

**November 28, 2006**

**PRELIMINARY DRAFT COMPREHENSIVE LIST OF MEASURES  
TO REDUCE PM-10 PARTICULATE MATTER**

MEASURE	FIVE PERCENT REDUCTION IN EMISSIONS	MODELING ATTAINMENT DEMONSTRATION	ATTAINMENT AT THE MONITORS	POTENTIAL IMPLEMENTING ENTITY
<b>Agriculture</b> The Governor's Agricultural Best Management Practices Committee is in the process of evaluating potential measures to further reduce PM-10 emissions from agriculture for consideration for the Five Percent Plan for PM-10. This Committee was established by law in 1998 (Arizona Revised Statutes, Title 49-457) to develop an agricultural PM-10 general permit that would address the need for controls on agricultural operations. The potential agricultural measures will be presented to the MAG Air Quality Technical Advisory Committee for consideration.				
<b>Fugitive Dust Control Rules</b>				
1. Public education and outreach (e.g., Clark County) with assistance from local governments	H (increasing Rule 310 effectiveness)	H (increasing Rule 310 effectiveness)	L	County, local govts
2. Extensive Dust Control Training Program (e.g., Clark County)	H (increasing Rule 310 effectiveness)	H (increasing Rule 310 effectiveness)	M	County, private sector
3. Core Dust Control Training Program with video provided to local governments and private sector	H (increasing Rule 310 effectiveness)	H (increasing Rule 310 effectiveness)	M	County, local govts, private sector
4. Dust Managers required at construction sites of 50 acres and greater (e.g., Clark County)	H (increasing Rule 310 effectiveness)	H (increasing Rule 310 effectiveness)	M	County
5. Dedicated coordinator for unpaved roads and vacant lots (e.g., Clark County)	H (increasing Rule 310.01 effectiveness)	H (increasing Rule 310.01 effectiveness)	M	County
6. Strengthen trackout provisions - reduce length that requires rapid cleanup (e.g., 25 feet cumulative from all exits) - increase size of gravel pad - require grizzly and gravel pad	H (increasing Rule 310 & 310.01 effectiveness)	H (increasing Rule 310 & 310.01 effectiveness)	H	County

MEASURE	FIVE PERCENT REDUCTION IN EMISSIONS	MODELING ATTAINMENT DEMONSTRATION	ATTAINMENT AT THE MONITORS	POTENTIAL IMPLEMENTING ENTITY
7. Increase fines for dust control violations and continue to publish the list of violators	H (increasing Rule 310 & 310.01 compliance)	H (increasing Rule 310 & 310.01 compliance)	H	County
8. Establish a certification program for Dust Free Developments to serve as an industry standard	H (increasing Rule 310 effectiveness)	H (increasing Rule 310 effectiveness)	L	State, County
9. Better defined tarping requirements in Rule 310 to include enclosure of the bed	H (increasing Rule 310 effectiveness)	H (increasing Rule 310 effectiveness)	M	County
<b>Industry</b>				
10. Implement Rule 316	L	L	H	County, private sector
11. Require private companies to use PM-10 certified street sweepers or water filtration system sweepers on paved areas including parking lots (e.g., Clark County)	L	L	H	State
12. Shift hours of operation during stagnant conditions in November through February	N/A	H	H	State
13. Model cumulative impacts for new or modified existing sources	L	L	M	State
14. Conduct night time and weekend inspections	L	M	M	County
<b>Nonroad Activities</b>				
15. Discourage use of leaf blowers on high pollution advisory days	L	L	L	State, County
16. Encourage use of leaf vacuums to replace blowers	L	L	L	State, County
17. Reduce off-road vehicle use in areas with high off-road vehicle activity (e.g., Goodyear Ordinance)	M	L	L	State, County, local govts

MEASURE	FIVE PERCENT REDUCTION IN EMISSIONS	MODELING ATTAINMENT DEMONSTRATION	ATTAINMENT AT THE MONITORS	POTENTIAL IMPLEMENTING ENTITY
18. Create a fund to provide incentives to retrofit nonroad diesel engines and encourage early replacements with advanced technologies	L	L	L	State
19. Update the statutes to require ultra-low sulfur diesel fuels for nonroad equipment	L	L	L	State
<b>Paved Roads</b>				
20. Sweep streets with PM-10 certified street sweepers	M	M	M	County, local govts
21. Retrofit onroad diesel engines	L	L	L	State, County, local govts
22. Pave or overlay with rubberized asphalt	L	L	L	State, County, local govts
<b>Unpaved Parking Lots</b>				
23. Pave or stabilize existing unpaved parking lots (e.g., Phoenix Parking Code)	M	M	M	County, local govts
<b>Unpaved Roads</b>				
24. Pave or stabilize existing dirt roads and alleys	H	N/A	L	County, local govts
24. Limit speeds to 15 miles per hour on high traffic dirt roads	H	N/A	L	County, local govts
26. Prohibit new dirt roads including those associated with lot splits	N/A	N/A	L	State, County
<b>Unpaved Shoulders</b>				
27. Pave or stabilize unpaved shoulders	H	M	M	County, local govts

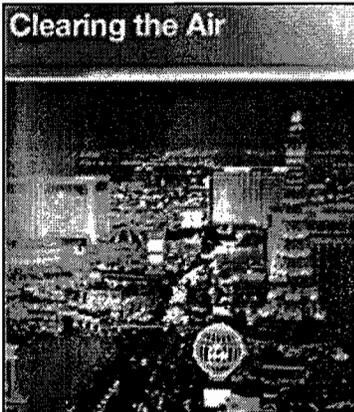
MEASURE	FIVE PERCENT REDUCTION IN EMISSIONS	MODELING ATTAINMENT DEMONSTRATION	ATTAINMENT AT THE MONITORS	POTENTIAL IMPLEMENTING ENTITY
<b>Unpaved Access Points</b>				
28. Pave or stabilize unpaved access to paved roads	M	M	M	County, local govts
<b>Vacant Lots</b>				
29. Strengthen and increase enforcement of Rule 310.01 for vacant lots	H (increasing Rule 310.01 effectiveness)	L	M	County
30. Restrict vehicular use and parking on vacant lots (e.g., Phoenix)	H (increasing Rule 310.01 effectiveness)	L	M	County, local govts
31. Enhanced enforcement of trespass ordinances and codes	H (increasing Rule 310.01 effectiveness)	L	M	County, local govts
32. Vacant lots stabilized by County if owners do not respond, liens put on property if necessary (e.g., Clark County)	H (increasing Rule 310.01 effectiveness)	H	M	State, County

Note: Low, medium, and high rankings are preliminary qualitative assessments and will be revised when the emissions inventory and modeling data are available.



Edward Lawrence, Reporter  
**Valley is Breathing Cleaner Air, EPA Says**

Jan 3, 2007 09:38 PM MST



People in the Las Vegas Valley are breathing cleaner air these days. The federal Environmental Protection Agency says the valley is now meeting dust pollution guidelines for the first time in years.

The Clark County Air Quality Management office made the announcement today.

According to the county, there is less dust in the air now than ten years ago. In 1996 there was about 720 tons of pollution in the air on any given day. The amount of dust in the valley's air has dropped to about half, which is now below the federal dust standards.

Commissioner Bruce Woodbury, Clark County, said, "Air quality is cleaner in several respects than it has ever been for the past two or three decades."

Ten years ago the Environmental Protection Agency told Clark County the air quality did not meet federal minimum quality levels. The EPA gave the county until Dec. 31, 2006 to fix the problem or lose \$280 million in federal money.

The county then started its dust control program.

"The main sources were construction, disturbance of land, vacant land that had been driven on and disturbed, and other activity on vacant land -- off road travel, for example," said Lewis Wallenmeyer, acting air quality director.

Wallenmeyer says the result of strict enforcement is levels of dust, which meet federal standards.

A big part of the dust control program targets construction companies. Workers must wet down the ground to keep dust from flying into the air.

The county collected \$1.2 million in dust fines last year. The money goes to the Clark County School District.

**Email your comments to Reporter Edward Lawrence.**



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