



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

September 18, 2007

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: John Kross, Queen Creek, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Tuesday, September 25, 2007 - 1:30 p.m.
MAG Office, Suite 200 - Saguaro Room
302 North 1st 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 Jason Stephens 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 video conference or by telephone conference call. Those attending by video conference must notify the MAG site three business days prior to the meeting.

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.

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 June 28, 2007 Meeting Minutes

4. Evaluation of Proposed CMAQ Projects for the FY 2009-2013 MAG TIP

An evaluation of proposed Congestion Mitigation and Air Quality Improvement (CMAQ) projects submitted for the FY 2009-2013 MAG Transportation Improvement Program (TIP) has been conducted. The deadline for submitting the projects was September 7, 2007. The evaluation includes emission reductions and cost-effectiveness information.

In addition, a list of Air Quality Projects is also provided. It is requested that the Air Quality Projects be ranked and forwarded to the Transportation Review Committee. Please refer to the enclosed material.

2. For information.

3. Review and approve the June 28, 2007 meeting minutes.

4. For information, discussion and recommendation to forward the evaluation of proposed CMAQ projects for the FY 2009-2013 MAG Transportation Improvement Program to the MAG Transportation Review Committee and modal committees for use in prioritizing projects. In addition, rank the Air Quality Projects to be forwarded to the MAG Transportation Review Committee.

5. Evaluation of Proposed PM-10 Paving Unpaved Road Projects for FY 2010 CMAQ Funding

An evaluation of proposed PM-10 Paving Unpaved Road Projects for Federal Fiscal Year 2010 Congestion Mitigation and Air Quality Improvement funds has been conducted. The deadline for submitting the projects was September 7, 2007.

For FY 2010, the FY 2008-2012 MAG Transportation Improvement Program identifies \$3.5 million in CMAQ funding for Paving Unpaved Road Projects. It is requested that the Paving Unpaved Road Projects be ranked and forwarded to the Transportation Review Committee. Please refer to the enclosed material.

6. Evaluation of Proposed PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ Funding

An evaluation of proposed PM-10 Certified Street Sweeper Projects for Federal Fiscal Year 2008 Congestion Mitigation and Air Quality Improvement (CMAQ) funds has been conducted. The deadline for submitting the projects was September 7, 2007.

The FY 2008 Unified Planning Work Program and FY 2008-2012 MAG Transportation Improvement Program contain \$1,110,000 in FY 2008 CMAQ funding to encourage the purchase and utilization of PM-10 certified street sweepers. A minimum local match of 5.7 percent is required.

Eighteen projects requesting federal funds were evaluated. The MAG Air Quality Technical Advisory Committee is requested to recommend a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ funding to the MAG

5. For information, discussion and recommendation to rank the Proposed PM-10 Paving Unpaved Road Projects for FY 2010 CMAQ funding and forward to the MAG Transportation Review Committee.

6. For information, discussion and recommendation of a prioritized list of proposed PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ funding and to retain the prioritized list for any additional FY 2008 CMAQ funds that may become available due to year-end closeout, including any redistributed obligation authority, or additional funding received by this region.

Management Committee. Please refer to the enclosed material.

7. Status Report on the MAG Five Percent Plan for PM-10 and Draft Modeling

In accordance with the Clean Air Act, the MAG Five Percent Plan for PM-10 is required to reduce PM-10 emissions by five percent per year until the standard is attained at the monitors. The plan is due to the Environmental Protection Agency by December 31, 2007.

To date, commitments to implement measures have been received from ADOT, Maricopa County, and all of the cities and towns in the PM-10 nonattainment area. The Legislature also passed SB 1552 which contains several PM-10 measures. These committed measures are being evaluated to determine the air quality impacts.

At this meeting, the status of the plan and the draft PM-10 modeling will be discussed. The presentation will include the draft emissions projections for 2007, 2008, 2009 and 2010 and emissions reductions for the committed measures received for the Five Percent Plan for PM-10.

8. Call for Future Agenda Items

The next meeting of the Committee has been tentatively rescheduled from October 25, 2007 to **Thursday, November 8, 2007 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.

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

Thursday, June 28, 2007
MAG Office
Phoenix, Arizona

MEMBERS PRESENT

Stephen Cleveland, City of Goodyear, Chairman
Shirley Gunther for Jess Segovia, Avondale
Lucky Roberts, Buckeye
*Jim Weiss, Chandler
*Jamie McCullough, El Mirage
Lisa Taraborelli for Tami Ryall, Gilbert
Catherine Chaberski for Doug Kukino, Glendale
Scott Bouchie, Mesa
Gaye Knight, Phoenix
Larry Person, Scottsdale
#Antonio DeLaCruz, Surprise
Oddvar Tveit, Tempe
*Walter Bouchard, Citizen Representative
Corey Woods, American Lung Association of Arizona
Barbara Sprungl, Salt River Project
Brian O'Donnell, Southwest Gas Corporation
Mark Hajduk, Arizona Public Service Company
#Gina Grey, Western States Petroleum Association
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
*Connie Wilhelm-Garcia, Homebuilders Association of Central Arizona
*Stephen J. Andros, American Institute of Architects - Central Arizona
*Mannie Carpenter, Valley Forward
Kai Umeda, University of Arizona Cooperative Extension
Beverly Chenausky, Arizona Department of Transportation
Diane Arnst for Peter Hyde, Arizona Department of Environmental Quality
Wienke Tax, Environmental Protection Agency
Jo Crumbaker, Maricopa County Air Quality Department
Duane Yantorno, Arizona Department of Weights and Measures
Ed Stillings, Federal Highway Administration
*Judi Nelson, Arizona State University
*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
Dean Giles, Maricopa Association of Governments
Julie Hoffman, Maricopa Association of Governments
Patrisia Navarro, Maricopa Association of Governments
Ieesuck Jung, Maricopa Association of Governments
Taejoo Shin, Maricopa Association of Governments
Cathy Arthur, Maricopa Association of Governments
Shane Kiesow, City of Apache Junction
Mario Saldamando, City of Goodyear
Brent Stoddard, City of Glendale

Ray Dovalina, City of Phoenix
Clem Ligocki, Maricopa County Department of Transportation
Jane McVay, Arizona Department of Transportation
Jody Noble, Environmental Stabilization Solutions
Barb Sylvester, Brown and Caldwell
John Nadeau, Hythane Company
Corinne Purtill, The Arizona Republic
Doris Lo, Environmental Protection Agency

1. Call to Order

A meeting of the MAG Air Quality Technical Advisory Committee was conducted on June 28, 2007. Stephen Cleveland, City of Goodyear, Chair, called the meeting to order at approximately 1:40 p.m. Antonio DeLaCruz, City of Surprise; Gina Grey, Western States Petroleum Association, and Doris Lo, Environmental Protection Agency, attended the meeting via telephone conference call.

Lindy Bauer, Maricopa Association of Governments, indicated that Mr. Cleveland is retiring from the City of Goodyear and presented him with a Resolution of Appreciation for his work as Chair of the MAG Air Quality Technical Advisory Committee.

Mr. Cleveland thanked the Committee and commented on the commitment made by everyone to make the air quality efforts successful. He mentioned the cooperation and willingness to give a little. Mr. Cleveland discussed the workshop conducted on the Clark County Dust Control Program in Las Vegas, Nevada to get new ideas about what this region needs to do to address dust control. He indicated that without that trip, there may not have been the bonding, understanding, and appreciation for what is dust and what are the issues. Mr. Cleveland stated that it is imperative that the community be successful. He mentioned that it is about taking limited resources and sharing to put them where it makes a difference. Mr. Cleveland indicated that he officially retires from the City of Goodyear on December 31, 2007. He added that he will help transition beginning July 1, 2007. Mr. Cleveland discussed his unique opportunity and announcing his retirement six months early. He stated that each person has made being Chair most pleasurable. Mr. Cleveland indicated that the Committee understands the issues and he had the pleasure of facilitating the conversation, decisions and cooperation. He stated that he will miss the Committee immensely and thanked them for the opportunity. Mr. Cleveland indicated that leadership is only a function of those willing to support it.

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 tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Public comment is provided at the beginning of the meeting for nonagenda items and nonaction agenda items. He noted that no public comment cards had been received.

3. Approval of the June 7, 2007 Meeting Minutes

The Committee reviewed the minutes from the June 7, 2007 meeting. Larry Person, City of Scottsdale, requested a change to the third paragraph on page 5 of the minutes. He indicated that the last sentence should read that Ms. Bauer stated that MAG is now collecting data of the inventories of unpaved roads from the cities and will be evaluating that data. Mr. Person made a motion to approve the June 7, 2007 meeting minutes as corrected. Jeannette Fish, Maricopa County Farm Bureau, seconded and the motion passed unanimously.

4. Draft 2007 MAG Conformity Analysis for the Draft FY 2008-2012 MAG Transportation Improvement Program and Draft Regional Transportation Plan - 2007 Update

Dean Giles, Maricopa Association of Governments, presented the Draft 2007 MAG Conformity Analysis for the Draft FY 2008-2012 MAG Transportation Improvement Program (TIP) and Draft Regional Transportation Plan (RTP) - 2007 Update. He indicated that each year MAG typically updates the TIP and RTP and conducts a regional emissions analysis. Mr. Giles provided background on air quality conformity. He indicated that the Clean Air Act links transportation and air quality and requires that transportation plans, programs and projects conform to the purpose of air quality plans. Conformity ensures that transportation activities do not cause violations of the air quality standards. Mr. Giles indicated that the motor vehicle emissions budgets established in the air quality plans are used in the conformity analysis.

Mr. Giles stated that conformity requires that the TIP and RTP pass the conformity emissions tests using budgets determined to be adequate or approved by the Environmental Protection Agency (EPA). Conformity also requires that the latest planning assumptions and emissions models be used. Mr. Giles indicated that the TIP and RTP must provide for the timely implementation of transportation measures from the applicable air quality plan. Also, MAG conducts interagency consultation on proposed models, associated methods, and assumptions for the upcoming analysis and then again once the draft conformity analysis is available. Mr. Giles presented the results of the following: the conformity budget test for carbon monoxide; the adjusted one-hour ozone budget test and 2002 baseline emissions test for volatile organic compounds and nitrogen oxides for eight-hour ozone; and, the conformity budget test for PM-10.

Brian O'Donnell, Southwest Gas Corporation, commented on EPA proposing a new eight-hour ozone standard. He asked if the conformity analysis would need to be redone if the standard is lowered. Ms. Bauer responded that EPA has just proposed the new eight-hour ozone standard. She indicated that, according to the EPA schedule, the new standard would become final March 12, 2008. Ms. Bauer mentioned that States would then need to make recommendations for areas to be designated attainment and nonattainment. She indicated that when EPA does set the standard, modeling would need to be conducted for the attainment date and a plan prepared that would set a new budget. Ms. Bauer stated that EPA will likely provide additional conformity guidance in conjunction with the Federal Highway Administration.

Mr. Giles discussed the transportation control measure funding in the FY 2008-2012 MAG TIP. He indicated that the total funding is approximately \$1.6 billion. Mr. Giles stated that the TIP and RTP do not interfere with the timely implementation of the transportation control measures. He provided a conformity schedule. Mr. Giles indicated that based on the conformity requirements, the TIP and RTP are supported by the regional emissions analysis for a finding of conformity. He reviewed the responses to public comments on the Draft 2007 MAG Conformity Analysis for the Draft FY 2008-2012 MAG TIP and Draft MAG RTP - 2007 Update received at the June 18, 2007 public hearing. He noted that the responses to public comments were provided at each place.

Mr. Person asked why the conformity budget test for carbon monoxide included an additional year. Mr. Giles replied that 2015 is a maintenance year for carbon monoxide which makes it a requirement. Corey Woods, American Lung Association of Arizona, made a motion to recommend approval of the Draft 2007 MAG Conformity Analysis for the Draft FY 2008-2012 MAG TIP and

Draft RTP - 2007 Update. Beverly Chenausky, Arizona Department of Transportation, seconded and the motion carried unanimously.

5. Evaluation of Proposed PM-10 Projects for FY 2007 CMAQ Funding

Mr. Giles presented the evaluation of proposed PM-10 projects for FY 2007 Congestion Mitigation and Air Quality Improvement (CMAQ) funding. He indicated that on May 23, 2007, the MAG Regional Council approved an additional 13 PM-10 measures. One of the measures was for MAG to 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. Mr. Giles stated that three road and seven shoulder projects requesting approximately \$6.044 million in federal funds were received. He indicated that MAG has conducted an evaluation of the proposed projects for emissions reduction and cost-effectiveness.

Mr. Giles stated that the evaluation was included in the agenda packet and presented in two attachments. In Attachment A, the projects have been listed in order of cost-effectiveness based on the amount of CMAQ funds requested. Attachment B provides the projects listed in order of PM-10 emission reductions. Mr. Giles indicated that the request is for the Committee to rank the projects for the \$5 million available. Mr. Cleveland commented that there is \$5 million available and approximately \$6 million in requests. He discussed cost-effectiveness versus emission reductions.

Barbara Sprungl, Salt River Project, indicated that if the projects were ranked by cost-effectiveness, and keeping the Phoenix/Maricopa County shoulder project due to the proximity to the PM-10 monitors in the Salt River Area, the Goodyear project would be cut. She stated that cutting the Goodyear project brings it below \$5 million and eliminating 73.4 kg/day of PM-10 reductions. Ms. Sprungl indicated that based on PM-10 reductions alone, five projects would be cut and eliminate 235 kg/day of PM-10 reductions. She mentioned that it would be less of a cut in reductions by cutting the Goodyear project rather than the five with the lowest PM-10 reductions.

Dave Berry, Arizona Motor Transport Association, referred to previous documents sent that indicated that the Regional Council made a decision to allocate, on a 50/50 matching basis, \$5 million and asked if that is the same as the \$5 million being discussed. Ms. Bauer replied that it is the same \$5 million. Mr. Berry commented on the rush in getting the projects submitted and asked if CMAQ funds are being used. Ms. Bauer that is correct. She indicated that MAG also explored using Surface Transportation Program (STP) to see which would be most feasible. Ms. Bauer discussed putting the projects in the TIP to help with the PM-10 problem. She indicated that MAG learned the STP funds would need to be used on functionally classified roads. Therefore, CMAQ funds will be used.

Mr. Berry asked if all of the projects were a 50/50 split or did any member agencies contribute more. He inquired if both parties are contributing 50 percent. Mr. Giles responded that is correct. Mr. Berry mentioned that with Proposition 400, the CMAQ dollars have been programmed. He asked if the \$5 million is part of Proposition 400 commitments or new money. Mr. Berry inquired about how the \$5 million fits with the 20 year plan. Mr. Giles replied that the funding has been established in the TIP. He indicated that there were some projects in the TIP that could not proceed in the current year so the funding is available for FY 2007. Mr. Giles noted that the TIP is still on schedule to continue the remainder of the CMAQ projects programmed.

Mr. Berry commented on the importance of paving roads now. He indicated that he supports this activity, but wants to make sure it is in compliance with Proposition 400. Mr. Giles stated that the funds were part of the closeout that was set aside for this purpose. Ms. Bauer mentioned that these funds would be on a nonsupplanting basis for new projects.

Mr. Cleveland recognized Ray Dovalina, City of Phoenix, who commented that Phoenix worked in collaboration with Maricopa County Department of Transportation (MCDOT) for this particular submittal. He indicated that Phoenix is very supportive in moving forward and hopefully receiving funding for the project. Mr. Dovalina discussed the areas to be paved and indicated the funding would help Phoenix move forward in that direction.

Mr. Cleveland recognized Clem Ligocki, Maricopa County Department of Transportation, who commented that there is a lot at stake. He indicated that Phoenix thought it would be a good idea to work together on the project. Mr. Ligocki mentioned that MCDOT said it would be an excellent idea and put together a group of projects with high traffic where there could be a strong impact. He stated that he hopes the Committee supports the project and indicated that he appreciates MAG making the funding available. Mr. Ligocki added that MCDOT has a commitment to work with Phoenix to complete the project.

Mr. Cleveland inquired about the roads and shoulders included in the project for \$1.9 million. Mr. Dovalina replied that the projects are for approximately nine miles of roadways and about 12 miles of shoulders. He stated that the project for \$1.9 million is for about 12 miles of shoulders. Mr. Cleveland inquired about the proximity to the PM-10 monitors in the Salt River Area. Gaye Knight, City of Phoenix, indicated that most of the road and shoulder projects are in South Phoenix in the Salt River Area. She mentioned that a map has been produced and that she had copies. Mr. Dovalina added that some other areas were identified in the northern area of Maricopa County.

Mr. Cleveland inquired about the five projects that would be cut when ranking by emission reductions. Ms. Sprungl stated that if the projects are ranked by cost-effectiveness and including the Phoenix/Maricopa County shoulder project because of the impact on the Salt River Area, the Goodyear project would have the highest cost-effectiveness. She indicated that the cost is \$1.2 million and cutting the project would be eliminating 73.4 kg/day of emission reductions. Ms. Sprungl stated that if the projects were ranked solely on emission reductions, the last five projects on Attachment B would be cut, eliminating 235 kg/day of emission reductions.

Mr. O'Donnell commented on unpaved shoulders near the Higley monitor. He indicated that he is not sure of the timeline, but perhaps these unpaved shoulders should be addressed. Mr. Cleveland stated that these funds are what was not spent in the current cycle. He indicated that the projects need to be ready to go and obligated by September. Mr. Cleveland stated that there is importance in the Phoenix improvements. He commented on Goodyear receiving funds as well. Mr. Cleveland mentioned going 50/50 on the last two projects. He commented on emission reductions versus cost-effectiveness.

Jo Crumbaker, Maricopa County Air Quality Department, commented that the projects evaluated are some of the most cost-effective that the Committee has seen in a while. She indicated that she does not know if cost-effectiveness itself is a driver. Ms. Crumbaker mentioned some of the issues in the Salt River Area have to do with drainage issues and irrigation ditches, which makes the cost of the

shoulders in particular more expensive. Mr. Cleveland asked if Ms. Crumbaker supports the emission reductions method. Ms. Crumbaker referred to comments made by Ms. Sprungl and getting the most emission reductions.

Mr. Berry indicated that he supports thoughts by Ms. Sprungl in terms of trying to reduce the most tons possible in total with a special emphasis on those around the PM-10 monitors. He indicated that it is not just about eliminating PM-10 around the monitors, but it is an important part.

Scott Bouchie, City of Mesa, inquired about partially funding the Goodyear project. Mr. Giles responded that the Goodyear projects were submitted for various locations. He indicated that many of the projects in the list have many segments that occur on different roadways. Mr. Giles stated that it is possible that if the Committee cuts funding from a project it could be repackaged so that the scope is cut to use the funding on fewer locations. Mr. Cleveland asked if the recommendation by Mr. Bouchie is that any remainder money would go to the Goodyear project to be allocated against fewer of the segments than were proposed. Mr. Bouchie replied that is correct.

Ms. Knight inquired about additional money so all the projects could be funded. Mr. Cleveland asked if there is any additional funding available. Mr. Giles responded that the \$5 million is the funding that the Regional Council had allocated for paving dirt roads and shoulders. Mr. Cleveland commented on a recommendation to Management Committee and Regional Council that there are some very effective projects and additional funding should be allocated. In the event additional funding cannot be allocated, then reduce the Goodyear project down to the amount of the remaining funds. He mentioned Goodyear being first on the list for funding next year.

Mr. Berry asked if there are any 2008 CMAQ projects with a cost-effectiveness greater than \$4,494. He commented on the projects evaluated being very cost-effective. Mr. Berry stated that it would be silly to move forward with 2008 CMAQ projects that would not have the same benefit as the Goodyear project if it were to be cut. Mr. Giles indicated that the FY 2008 and 2009 paved road projects have gone through the process and are scheduled in the draft TIP. Mr. Berry commented on reallocating the funds if it means cleaner air more quickly and more cost-effectively. Ms. Bauer mentioned that the region has a problem with PM-10 and the \$5 million was approved by the Regional Council in May because they realized it is a problem that needs to be fixed quickly and that is why the projects will be included in the TIP.

Mr. O'Donnell commented on having a project and expending funds. Mr. Giles indicated that the 2008 projects went separately to the Regional Council and received the money that was allocated for each project. He stated that at this point, the project sponsors may have begun to move ahead in anticipation of the project. Mr. Giles mentioned the impact of making a change. Mr. Berry indicated that it is worth checking and would hope that there would be flexibility to make mid-course corrections if warranted.

Ms. Knight commented on Goodyear having five projects and Phoenix and Maricopa County having a number of short segments making hard to do an individual analysis on each. She inquired about completing an individual analysis on the five Goodyear projects and submitting them separately instead of one project to determine the emission reductions for each and compare with the other projects submitted. Mr. Cleveland stated that it is his understanding that MAG staff grouped the projects. He asked if the analysis was run on the individual segments. Mr. Giles replied no. He

indicated that the shoulder projects tend to be short segments and instead of bringing a list of 30 projects to the Committee, the projects were grouped.

Ms. Knight stated that Phoenix struggles in the Salt River Area with PM-10 violations and some of the shoulder projects in the area are fairly long segments with a fair amount of traffic. She referred to Attachment B and stated that there is a lot of emission reductions for paving roads and shoulders do not get as much reduction. However, the shoulder projects are on arterial roads and are long segments in the Salt River Area.

Mr. Cleveland stated that there is no question that the Phoenix/Maricopa County projects warrant funding. He asked if the Committee is comfortable with any remainder funds going to the Goodyear project. Mr. Cleveland indicated that gives Goodyear the opportunity to do some additional improvements. He stated that if there are new funds in 2008, as done for street sweepers, then those projects not funded in this list become first priority in the next list. Lisa Taraborelli, Town of Gilbert, mentioned the consideration of asking for additional CMAQ dollars to fully fund the requests. Mr. Cleveland stated that is recommendation number one, that all the projects merit funding to the full extent of the projects listed and therefore encourage the Management Committee and Regional Council to approve an additional approximately \$1 million. He indicated that in the event that there is a finding that there is not an additional \$1 million, then the second recommendation would be that all the projects be funded with the last Goodyear project listed receiving the remaining funds and, if the Committee is willing to consider it, putting the project at the top of the list for 2008 consideration of uncommitted funding.

Ms. Sprungl made a motion that the Management Committee and Regional Council be encouraged to find an additional \$1 million or any portions thereof and that additional amount be added to the funds available for the Goodyear project. Ms. Taraborelli seconded and the motion carried unanimously. Ms. Taraborelli made a motion that any Goodyear projects that do not make the 2007 funding be placed at the top of the list for 2008 funding. Mr. Cleveland mentioned street sweepers as an example. Mr. Giles indicated that MAG solicits street sweeper projects each year. Amanda McGennis, Associated General Contractors, seconded the motion, which passed unanimously.

6. Decision of the U.S. Court of Appeals on the EPA Request for Rehearing of the Phase I Rule to Implement the 8-Hour Ozone Standard and EPA Proposed New 8-Hour Ozone Standard

Ms. Bauer provided an overview of the decision of the U.S. Court of Appeals on the EPA Request for Rehearing of the Phase I Rule to Implement the 8-Hour Ozone Standard and EPA Proposed New 8-Hour Ozone Standard. She indicated that EPA had notified MAG that on June 8, 2007, the U.S. Court of Appeals rejected EPA's rehearing request on the classification of Subpart 1 areas. Ms. Bauer mentioned that this region is a Subpart 1 Basic Area under that classification. She stated that EPA will now have to go back and determine what they will do with the Subpart 1 areas.

Ms. Bauer indicated that the Eight-Hour Ozone Plan was due June 15, 2007 and on June 18, 2007 EPA emailed a memorandum to MAG stating that the plans are not due by the June 15, 2007 submission date. However, the Clean Air Act states that the nonattainment area plans are due three years after designation. Ms. Bauer mentioned that EPA has indicated that they will not be taking action on the plan anytime soon. She stated that as EPA determines what to do with the Subpart 1 areas, MAG will continue to watch the monitors and hopefully have another summer with no

violations. Ms. Bauer noted that to date there have been no exceedances of the eight-hour ozone standard in 2007. Wienke Tax, Environmental Protection Agency, stated that there may be a new submission date and new requirements, but EPA does not know right now.

Ms. Bauer stated that on June 20, 2007, EPA proposed to strengthen the eight-hour ozone standard. She indicated that the EPA fact sheet and maps were included in the agenda packet. Ms. Bauer referred to the maps and stated that several more areas would fall into nonattainment, based on 2003-2005 air quality data, including this region. She also called attention to the timeline. Ms. Bauer mentioned that EPA is currently taking comments and final standards would be issued by March 12, 2008. She indicated that States would make recommendations for areas to be designated attainment and nonattainment in June 2009, EPA would make the final designations in June 2010, and then the plans would be due in 2013. Ms. Bauer added that attainment dates would be between 2013 and 2030.

Ms. Crumbaker stated that the Maricopa County Air Quality Department looked at the 19 County monitor sites and through 2006 all except four would violate the proposed 0.075 parts per million (ppm) standard and all except two would violate the proposed 0.070 ppm standard. Mr. Cleveland inquired about the consequences. Ms. Crumbaker indicated that the region has more measures and thinking to do when looking ahead.

Ms. Bauer stated that the attainment date will be key. She mentioned that the Legislature has passed S.B. 1552 which included ozone control measures that will start next year. Ms. Bauer indicated that the benefit for the Tier II Tailpipe Standards that started with model year 2004 vehicles is only beginning. In addition, the EPA Heavy Duty Engine Standards start with model year 2007 heavy duty vehicles and the October 1, 2006 clean burning diesel fuel just started last year. Ms. Bauer stated that these measures are heavy hitting with ozone. She added that traditionally, the federal tailpipe standards have had the biggest impact for carbon monoxide and ozone. Ms. Bauer stated that the region will need to keep an eye on the monitors and the attainment date to see if additional measures will be needed.

Ms. Knight referred to the EPA maps and commented on the number of counties in Arizona that would violate the proposed standards. Diane Arnst, Arizona Department of Environmental Quality, stated that five counties would violate the proposed 0.075 ppm standard and eight or nine would violate the proposed 0.070 ppm standard. She indicated that ADEQ would be submitting comments. Mr. Cleveland commented that half of the State would be in violation.

Ms. Sprungl commented on the Eight-Hour Ozone Plan being submitted and submitting a maintenance plan if the region attains the 0.080 ppm standard. She asked if the region could be back to submitting a nonattainment plan for the new ozone standard after a maintenance plan would be submitted for the 0.080 ppm standard. Ms. Bauer replied that has happened in the past. For the one-hour standard, the region got a clean data finding from EPA, submitted the One-Hour Ozone Maintenance Plan, which EPA approved one day before the one-hour ozone standard was revoked, and then had to prepare the Eight-Hour Ozone Plan. Ms. Bauer stated that the EPA philosophy over time has been to tighten up on the pollutants to keep moving forward in cleaning up the air.

7. Update on S.B. 1552 Air Quality Program

Ms. Bauer gave an update on S.B. 1552 Air Quality Program. She indicated that the Arizona Legislature passed the bill on June 20, 2007. Ms. Bauer recognized the hard work of the Committee members. She stated that the Legislature went through the list of measures recommended by the Regional Council and many are embodied in legislation. Ms. Bauer added that S.B. 1552 included three ozone control measures as well. She indicated that the bill summary was included in the agenda packet. Ms. Bauer stated that commitments are being submitted to implement the PM-10 measures from the local governments and Maricopa County. She indicated that one question that is frequently asked is if the measures that the cities and County are committing to will fit with the legislation. Ms. Bauer stated that the measures should fit very nicely.

Ms. McGennis asked why the cities need to adopt an ordinance when there is County Rule 310.01. Ms. Bauer responded that the legislation calls for some ordinances and Maricopa County has stated that help is needed. Originally, the County was taking on a huge undertaking with Rule 310 applied on a region-wide basis as well as Rule 310.01 and so the County is asking the cities for help. Ms. Knight indicated that the cities thought they were helping a lot by adopting new ordinances that are captured in S.B. 1552. She stated that was a huge step for cities to do existing parking lots and vacant lots. Ms. Knight added that the cities thought they responded.

Ms. Fish stated that she thought the question raised by Ms. McGennis was more jurisdictional in that the County Rule 310.01 encompasses all the municipal jurisdictions within the County. Ms. Bauer responded that Rule 310.01 does encompass all of the jurisdictions; however, the County is saying they cannot handle it.

Mr. Cleveland inquired about the County commitment toward hiring additional inspectors. Ms. Crumbaker replied that it is still in the process; however, the County is looking at an additional 78 people which includes enforcement officers, support staff, and supervisors. Mr. Cleveland asked if the positions are authorized. Ms. Crumbaker responded that the positions are not authorized, but will go to the Maricopa County Board of Supervisors on July 23, 2007. She commented on committing to the financial resources which is necessary to make it an enforceable commitment. Ms. Crumbaker indicated that the County is working on describing the financial commitments.

7. Call for Future Agenda Items

Mr. Cleveland announced that the next meeting of the Committee is tentatively scheduled for July 26, 2007 at 1:30 p.m. Ms. Tax requested that the presentation on the Gila River Indian Community Air Quality Management Plan that was postponed at the last meeting be scheduled for a future meeting.

Ms. McGennis asked who would be replacing Mr. Cleveland as Chair of the Committee. Mr. Cleveland indicated that the process includes finding a city manager from the MAG Management Committee who is willing to make the commitment.

Ms. Knight presented Mr. Cleveland with a card from the Committee. Mr. Cleveland thanked the Committee. With no further comments, the meeting was adjourned.



**MARICOPA
ASSOCIATION of
GOVERNMENTS**

September 18, 2007

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

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: EVALUATION OF PROPOSED CMAQ PROJECTS FOR THE
FY 2009-2013 MAG TRANSPORTATION IMPROVEMENT PROGRAM

The Maricopa Association of Governments staff has conducted an evaluation of proposed Congestion Mitigation and Air Quality Improvement (CMAQ) projects submitted for the FY 2009-2013 MAG Transportation Improvement Program. In Attachment 1, Tables 1 through 4 provide the results of the project evaluation ranked by cost-effectiveness by modal category for FY 2013 projects and Table 5 includes ITS project evaluations ranked by cost-effectiveness for FY 2009. This information is being presented to the MAG Air Quality Technical Advisory Committee for a possible recommendation to forward the CMAQ evaluation to the MAG Transportation Review Committee and modal committees for use in prioritizing projects. In addition, it is requested that the Committee rank the Air Quality Projects in Table 1, to be forwarded to the MAG Transportation Review Committee. Please refer to Attachment 2 on the role of the AQTAC in the Congestion Mitigation and Air Quality Improvement Project Evaluation Process.

BACKGROUND

According to the final Congestion Mitigation and Air Quality Improvement Program Guidance, effective October 31, 2006, the purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards for ozone, carbon monoxide, and particulate matter. A description of the 16 project categories contained in federal CMAQ guidance as well as general activities and projects eligible for CMAQ funding is provided in Attachment 3.

Each year, MAG programs available federal funds. Jurisdictions are requested, through the MAG Management Committee, the Transportation Review Committee, and modal committees, to submit project requests for federal funding. The Regional Transportation Plan allocates CMAQ funding percent by mode (see Attachment 4). The approximate FY 2013 CMAQ funding levels include: Arterial Life Cycle Program and Intelligent Transportation Systems projects (\$6.9 million), bicycle and pedestrian projects (\$8.7 million), and air quality projects (\$7.5 million). Also, ITS projects were received for the \$1.5 million in unprogrammed CMAQ funding available for FY 2009. In addition to these categories of projects, the Regional Transportation Plan allocated CMAQ funding for Freeway Management System (FMS) projects and light rail transit. Since the specific FMS project improvements to be funded for FY 2013 are currently unknown, the CMAQ project evaluation will be made as this information becomes available. The deadline for submitting requests for FY 2013 projects was September 7, 2007. For FY 2009 projects, the deadline was extended to September 14, 2007.

The MAG Public Participation Process is divided into four phases: Early Phase, Mid-Phase, Final Phase, and Continuous Involvement. To obtain initial public input into the transportation programming process, an Early Phase Transportation Stakeholder meeting was conducted on August 17, 2007. Opportunities for Early Phase Input conclude on September 20, 2007.

MAG staff evaluates the projects using two systems: the Congestion Management System rating system and the CMAQ emission reduction benefit. The CMS system uses average daily traffic counts as the predominant measure of congestion. It is anticipated that the CMS scores will be made available to members of the MAG Transportation Review Committee for their October 25, 2007 meeting.

The Methodologies for Evaluating Congestion Mitigation and Air Quality Improvement Projects, August 15, 2005, were used to estimate the emission reduction benefits of the proposed CMAQ projects. The methodologies were presented at the CMAQ workshop conducted by MAG on June 28, 2005 and revised based on input received at the CMAQ workshop. Where appropriate, the emission reduction benefits and cost-effectiveness of CMAQ eligible projects have been quantified using these methodologies. The methodologies are also used to calculate the unweighted emission reductions of CMAQ projects for the annual report required by the Federal Highway Administration. A copy of the FY 2006 CMAQ Annual Report, previously provided at the February 15, 2007 AQTAC meeting for information and discussion, is provided in Attachment 5.

The CMAQ methodologies involve the estimation of the total daily weighted emissions reduction of PM-10, nitrogen oxides (NO_x), and total organic gases (TOG) expressed in kilograms per day, and the cost-effectiveness of each project, measured in CMAQ dollars per metric ton of total annual emissions reduced. Since there have been no violations of the carbon monoxide (CO) standard since 1996, carbon monoxide has been assigned a weight of zero and therefore no CO emissions reductions are shown. The Environmental Protection Agency MOBILE6.2 emission model was used to estimate the PM-10 tailpipe exhaust and tire wear emission factors, NO_x, and TOG, for the year of project implementation. The emission factors from EPA AP-42 were used to estimate reentrained PM-10 emissions on paved and unpaved roads, where appropriate.

All CMAQ eligible projects were evaluated for expected emission reductions and cost-effectiveness, where appropriate. Attachment 1, Tables 1 through 4, provide the results of the project evaluation ranked by cost-effectiveness within each modal category. Table 5 contains the FY 2009 ITS projects ranked by cost-effectiveness. It is important to note that all of the proposed projects support committed control measures contained in the MAG air quality plans. It is anticipated that these projects will be reviewed and ranked by the modal committees and then forwarded to the Transportation Review Committee.

Following review of the CMAQ evaluation by the MAG Air Quality Technical Advisory Committee, it is anticipated that the Committee may make a possible recommendation to forward the CMAQ evaluation to the MAG Transportation Review Committee and modal committees for use in prioritizing projects. In addition, it is requested that the Committee rank the Air Quality Projects in Table 1 to be forwarded to the MAG Transportation Review Committee. The Transportation Review Committee will be requested to recommend a fiscally constrained list of projects for federal funding to the MAG Management Committee for inclusion in the Draft FY 2009-2013 MAG Transportation Improvement Program.

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

Attachments

Table 1 - Evaluation of Proposed AIR QUALITY Projects for the Federal Fiscal Year 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)
Approximately \$7.5 million available for FY 2013 (RTP)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
MAGFED07-05	MAG	Regionwide	Pave Unpaved Roads Program ¹	2013	10.00	0.00	0.00	726.22	726.22	\$1,144	NS	\$4,513,000
MAGFED07-06	MAG	Regionwide	Purchase PM-10 Certified Street Sweepers ²	2013		0.00	0.00	192.51	192.51	\$1,825	NS	\$900,000
VMT13-903	MAG-Valley Metro	Regionwide	Telework/Ozone Education Program ³	2013		67.84	61.65	279.14	408.63	\$2,279	NS	\$330,000
RPTA	Maricopa County	Regionwide	Trip Reduction Program ⁴	2013		52.38	47.60	431.09	531.07	\$4,835	NS	\$910,000
VMT13-901	Valley Metro	Regionwide	Regional Rideshare Program ⁵	2013		36.53	33.20	300.61	370.34	\$4,991	NS	\$655,000
MAG06-210	MAG	Regionwide	Travel Reduction Program ⁵	2013		0.38	0.35	3.15	3.88	\$98,149	NS	\$135,000
MES13-903	Mesa	City of Mesa	City of Mesa Gas Division proposes to offer a grant using CMAQ project funds and operating funds to aid in the installation of home alternative fuel vehicle refueling stations, "Fuel Makers" for natural gas vehicles.	2013		NB ¹²	NB ¹²	NB ¹²	NB ¹²	NB ¹²	NS	\$133,000
MES13-904	Mesa	City of Mesa and surrounding communities	The City of Mesa proposes to install and operate a community natural gas refueling station for owners of alternative fuel vehicles utilizing existing city compressor infrastructure.	2013		NB ¹²	NB ¹²	NB ¹²	NB ¹²	NB ¹²	NS	\$166,000

Table 2 - Evaluation of Proposed BICYCLE and PEDESTRIAN Projects for the Federal Fiscal Year 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
VMT13-902	Valley Metro	Valleywide	Bicycle Safety Education Program ⁶	2013	0	36.53	33.20	300.61	370.34	\$1,333	NS	\$175,000
GLB13-902	Gilbert	Consolidated canal and Ray Rd., Eastern Canal & Williams Field Rd, Western Powerline & McQueen Rd, Western Powerline & Val Vista Rd, Western Powerline & Greenfield Rd, and Western Powerline & Recker Rd	Gilbert Bicycle Crossing Safety and Improvement Demonstration Phase II Project ⁷	2013	22.5	0.41	0.20	0.72	1.32	\$82,714	NS	\$595,000
GLB13-901	Gilbert	One mile radius from the Gilbert Elementary School, Mesquite Elementary School, Gilbert Junior High School, and Mesquite Junior High School	2007 Gilbert Pedestrian Safety & Traffic Calming Project ⁸	2013	4	0.08	0.02	0.08	0.17	\$201,051	NS	\$190,000
MES13-905	Mesa	Consolidated canal, 8th Street to Lindsay Road	Complete the design and construction of a 10-foot wide concrete pathway ⁸	2013	2.5	0.22	0.10	0.36	0.67	\$300,874	NS	\$1,099,000

Table 2 - Evaluation of Proposed BICYCLE and PEDESTRIAN Projects for the Federal Fiscal Year 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
GLB13-903	Gilbert	Galveston Off-Road system (east of Lindsey & Galveston Rd)	Gilbert multi-use pathway development project (Galveston Off-Road System) ^{7,8}	2013	0.25	0.07	0.03	0.11	0.21	\$304,569	NS	\$350,000
PEO13-902	Peoria	Trail gap between Northern Ave. and Olive Ave	Northern to Olive multi-use path ^{7,8}	2013	1	0.10	0.05	0.17	0.32	\$397,668	NS	\$701,400
PHX13-901	Phoenix	Nevitt Park and Western Canal (northwest of 46th St and Vineyard Rd)	Design and construct Nevitt Park Bicycle & Pedestrian Bridge Crossing ^{7,8}	2013	0.5	0.07	0.03	0.12	0.23	\$418,098	NS	\$522,000
GLN13-902	Glendale	East embankment of New River, from Bethany Home Rd. to Northern Ave.	New River Multi-Use Path improvements-10-foot wide, concrete cement, paved pathway ^{7,8}	2013	1.2	0.09	0.04	0.15	0.29	\$636,566	NS	\$1,000,000
SCT13-901	Scottsdale	Along the Arizona Canal from McDonald Drive to the Indian Bend Wash.	Arizona Canal Path: McDonald to IBW/Share-use path ^{7,8}	2013	1	0.12	0.05	0.19	0.37	\$709,704	NS	\$1,419,990
PVY13-901	Paradise Valley	Lincoln Drive south side of roadway, between Invergordon Road and eastern Town limits west of Scottsdale Rd.	Lincoln Drive sidewalk improvement, south side, Invergordon Rd to Eastern Town limits. Construct a 6' wide colored concrete sidewalk, replace substandard driveway entrances and intersection access ramps, adjacent to new sidewalk ⁸	2013	0.65	0.04	0.01	0.04	0.10	\$806,402	NS	\$441,000
MES13-901	Mesa	The project is located in the middle of the Town Center and will facilitate pedestrian movement from First Street to the Main Library. This project will connect with additional pedestrian pathways on Pepper Place.	The project area is not pedestrian friendly, and the sidewalk is in need of repair. Furthermore, the area does not have adequate shade during the day, or light during the night. To address these issues, specific improvements will include new lighting ⁸	2013	0.09	0.03	0.01	0.03	0.07	\$920,100	NS	\$337,018
LPK13-901	Litchfield Park	Litchfield Rd to Wigwam Blvd Intersection	Pedestrian/bicycle underpass at Litchfield Rd and Wigwam Blvd Phase II ⁸	2013	0.14	0.07	0.03	0.12	0.22	\$942,759	NS	\$1,100,000
BKY13-901	Buckeye	Town of Buckeye	Alarcon Blvd and Kino Place Pedestrian Corridor Project ⁸	2013	10.5	0.03	0.01	0.03	0.07	\$1,015,375	NS	\$407,336
ELM13-901	El Mirage	Dysart Rd to Aqua Fria River	El Mirage Multi-use Trail ^{7,8}	2013	5.5	0.13	0.06	0.21	0.40	\$1,552,947	NS	\$3,360,000
QNC13-901	Queen Creek	Ellsworth Rd and Queen Creek Wash to Chandler Heights Blvd. and Queen Creek Wash.	Queen Creek Wash and North Bank Decomposed Granite Pedestrian Path ⁸	2013	1	0.02	0.01	0.03	0.06	\$1,694,121	NS	\$525,000
PHX13-902	Phoenix	32nd St (Washington St to McDowell Rd)	Phase II: construct 32nd St Pedestrian Enhancement (Washington St to McDowell Rd) ⁸	2013	1.2	0.07	0.02	0.07	0.16	\$5,038,291	NS	\$3,951,000
PHX13-903	Phoenix	32nd St (Washington St to McDowell Rd)	Phase I: Design 32nd St Pedestrian Enhancement (Washington St to McDowell Rd) ⁸	2013	1.2	0.07	0.02	0.07	0.16	\$5,038,291	NS	\$373,000
TMP13-901	Tempe	Interstate-10 at Alameda Drive-City of Tempe	I-10 at Alameda bicycle and pedestrian bridge (Bicycle and Pedestrian Bridge over I-10 freeway at Alameda Drive) ^{7,8}	2013	0.1	0.02	0.01	0.03	0.05	\$9,250,100	NS	\$2,599,380

Table 3 - Evaluation of Proposed ITS Projects for the Federal Fiscal Years 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
MMA13-901	Maricopa County	Southwest Valley, 99th Ave to Cotton Ln to include McDowell Rd, Van Buren St, MC85/Buckeye	Develop a multi-agency Operations Plan that will support coordinated arterial operations, freeway/arterial coordination, incident management and traveler information. This Operations Plan will include agency roles and responsibility, equipment operation ^{9,10}	2013	10	0.70	0.30	0.00	1.00	\$20,934	NS	\$35,000
MES13-906	Mesa	Ten intersections with highest crash rates within City of Mesa. This project has city-wide potential.	This project will implement video and acoustic sensors in the field to automatically detect and alert traffic operations staff of suspected crash or traffic impeding events. The communications will be facilitated using existing traffic controller cabinets ^{9,10}	2013	40	6.57	2.77	0.00	9.34	\$26,915	NS	\$420,000
	Scottsdale	Various locations	Last mile connections from City Fiber Network. ¹⁰	2013	30	5.66	1.85	0.00	7.51	\$27,866	NS	\$350,000
QNC13-902	Queen Creek	Various Locations Town-wide	Ten wireless traffic signal connections ¹⁰	2013	10	1.17	0.38	0.00	1.55	\$40,451	NS	\$105,000
MMA13-902	Maricopa County	Regionwide this project will enhance traveler information on key arterials throughout the region	Develop and implement arterial ATIS Enhancements, building on the previous Phase I efforts 511 enhancements, and other key projects. ^{9,10}	2013	20	2.87	0.94	0.00	3.81	\$54,999	NS	\$350,000
GLB13-904	Gilbert	Pecos Rd.-Greenfield to Power Rd, Power Rd-Pecos to Queen Creek Rd, Germann Rd-Power to Sossaman Rd	The proposed project will install approximately five miles of fiber optic cable and associated communications hardware to complete a high-bandwidth, non-leased interconnection between the Traffic Operations Centers in the Towns of Gilbert and Queen Creek. ¹⁰	2013	7	0.74	0.24	0.00	0.98	\$83,897	NS	\$137,690
SUR13-902	Surprise	Various Locations	Installation and integration of ITS Count Stations and DMS's on existing ITS corridors or bridged to adjacent existing corridors ¹⁰	2013	10	2.37	0.61	0.00	2.98	\$100,212	NS	\$500,000
MMA13-904	Maricopa County	direction at each of the following intersections: McDowell Rd and Avondale Blvd, McDowell Rd and Estrella Pkwy, MC85 and Avondale Blvd, MC85 and Estrella Pkwy	Install arterial DMS and associated conduit, pull boxes, fiber optic cable, communication equipment and electrical service equipment ^{9,10}	2013	12	2.85	0.93	0.00	3.79	\$110,579	NS	\$700,000
TMP13-902	Tempe	City Wide	Procure and install traffic control cabinets and hardware-Phase 1 of 3 ¹⁰	2013	25	1.80	0.72	0.00	2.52	\$127,944	NS	\$539,000
MES13-902	Mesa	West side mid-city (initial deployment), West city limits to Country Club, University to Broadway-but project has city-wide potential	Upgrade central traffic control system software to accommodate a lite version of adaptive control ¹⁰	2013	12	1.06	0.44	0.00	1.50	\$139,560	NS	\$350,000

Table 3 - Evaluation of Proposed ITS Projects for the Federal Fiscal Years 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
GDY13-901	Goodyear	Citywide	Design and construction of fiber optic interconnect in existing conduit for traffic management through video surveillance and data collection ^{9,10}	2013	15	0.88	0.38	0.00	1.26	\$422,811	NS	\$891,256
GLN13-901	Glendale	59th Ave between Northern and Bethany Home: Glendale Ave. between 51st Ave. and 67th Ave; Peoria Ave. between 47th Ave. and 67th Ave.	Variable message signs; ITS Conduit and Fiber ¹⁰	2013	7	0.94	0.31	0.00	1.24	\$480,037	NS	\$998,857
MMA13-903	Maricopa County	Sun Valley Parkway, I-10 to Bell Rd Connection	Implement a wireless communications system and CCTV on Sun Valley Parkway. Traffic signals will already be in place, and the wireless communications will provide interconnect and coordination capability. ^{9,10}	2013	20	0.11	0.05	0.00	0.16	\$1,801,532	NS	\$490,000
AVN13-901	Avondale	McDowell Rd from 99th Ave to Avondale Blvd (2 miles) plus 1/8 mile on 99th Ave from McDowell Rd north to the first signalized shopping center location	Proposed project is to furnish and install 2 1/8 miles of fiber optic cable, conduit, interdict, associated equipment at 9 traffic signals and one CCTV camera ¹⁰	2013	2.125	0.24	0.06	0.00	0.31	\$1,974,406	NS	\$1,011,794
SUR13-901	Surprise	Cotton Lane from Peoria Ave to Bell Rd	Optical Fiber interconnect of signals, TV cameras, dynamic message signs, and connection to ITS Fiber Backbone ¹⁰	2013	4	0.21	0.07	0.00	0.28	\$2,132,600	NS	\$1,000,000
SUR13-903	Surprise	Cotton Lane from Peoria Ave to Bell Rd	Optical Fiber interconnect of signals, TV cameras, dynamic message signs, and connection to ITS Fiber Backbone ¹⁰	2013	4	0.21	0.07	0.00	0.28	\$2,132,600	NS	\$1,000,000
PEO13-901	Peoria	83rd Ave beginning at Lone Cactus Dr and continuing north to Jomax Rd	Installation of Conduit, pull boxes, fiber, and CCTV cameras to connect signals to Central, and monitor traffic and provide real time traffic management on this segment of 83rd Ave ^{9,10}	2013	3.7	0.11	0.05	0.00	0.16	\$2,692,538	NS	\$700,000
PEO13-903	Peoria	Beardsley Rd between 83rd Ave and Existing Fiber at 95th Ave and Lake Pleasant Parkway	Installation of Conduit, pull boxes, fiber, and CCTV cameras to connect signals to Central, and monitor traffic and provide real time traffic management on this segment of Beardsley Rd ^{9,10}	2013	1.6	0.050311923	0.021715902	0.00	0.072027825	\$5,813,895	NS	\$700,000

Table 4 - Evaluation of Proposed Intersection Improvement Project for the Federal Fiscal Year 2013 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
PVY13-902	Paradise Valley	The 1st median north of Lincoln Drive on Tatum Boulevard southbound turn lane to provide additional capacity by removing landscaped median	Tatum Boulevard left turn lane extension at Lincoln Drive: extend Tatum Boulevard southbound turn lane to provide additional capacity by removing landscaped median.	2013		0.04	0.02	0.00	0.06	\$930,507	NS	\$280,000

Table 5 - Evaluation of Proposed ITS Projects for the Federal Fiscal Years 2009 Sorted by Cost Effectiveness (Includes Weighted Emission Reductions)

Project#	Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM10(kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMS Score ¹¹	CMAQ Funds Requested
TMP13-903	Tempe	Olive Ave: 67th Ave to 59th ave	ITS Fiber and 1 CCTV Camera ¹⁰	2009	75	9.87	13.71	0.00	23.58	\$2,930	NS	\$115,500
	Maricopa County	Regionwide	Key functions will benefit from this technical support, including traffic management, signal operations, traveler information, incident management, and inter-agency coordination for work zones and planned special events. ^{9,10}	2009	20	3.50	4.73	0.00	8.23	\$15,264	NS	\$210,000
SCT13-903	Scottsdale	South Scottsdale	Controller and cabinet replacement ¹⁰	2009	82	5.94	8.24	0.00	14.18	\$32,521	NS	\$525,000
GLB13-906	Gilbert	Guadalupe Rd, Higley Rd, Williams Field Rd	Gilbert ATMS Fiber East Ring Project - Phase I (Design) ¹⁰	2009	6.5	0.97	1.32	0.00	2.29	\$38,413	NS	\$147,000
GLB13-905	Gilbert	Higley Rd, Recker Rd, Guadalupe Rd, Elliot Rd, Warner Rd, Ray Rd, Williams Field Rd	Gilbert ATMS Fiber East Ring Project - Phase II (Design) ¹⁰	2009	9.50	0.85	1.15	0.00	2.00	\$44,036	NS	\$147,000
	Maricopa County	Southwest Valley – 99th Avenue to Citrus, Indian School Road south to MC85	This arterial program would be similar to the Freeway Service Patrol, and provide assistance such as fixing flat tires, moving disabled vehicles out of travel lanes, requesting tow services, or supporting police or REACT with arterial incident management. ^{9,10}	2009	10.00	1.04	1.04	0.00	2.46	\$59,660	NS	\$245,000
GDY13-902	Goodyear	Various locations	Purchase Dynamic Message Signs ¹⁰	2009	4.75	0.55	0.77	0.00	1.32	\$90,460	NS	\$200,000
PEO13-904	Peoria	Within the city of Peoria, connecting existing traffic signals to the central system using a hybrid wireless fiber system. 35 additional signals will be connected with this project.	Existing traffic signals within the city of Peoria will be connected to the fiber backbone, and back to central with either fiber or wireless. This connection will allow the city to manage the signals in a manner to reduce congestion, delay ^{9,10}	2009	17.00	1.33	1.84	0.00	3.17	\$99,123	NS	\$525,000
GLN13-903	Glendale	Citywide	Develop ITS and Communications Strategic Plan ¹⁰	2009	1.00	0.24	0.32	0.00	0.56	\$396,326	NS	\$372,149

Notes:

¹Supports the Measure in the Serious Area PM-10 Plan: “Reduce Particulate Emissions from Unpaved Roads and Alleys”

²Supports the Measure in the Serious Area PM-10 Plan: “PM-10 Efficient Street Sweepers”

³Supports the Transportation Control Measures (TCM) in the Serious Area PM-10 Plan and CO Maintenance Plan: “Encouragement of Telecommuting, Teleworking and Teleconferencing” and “Areawide Public Awareness Programs”

⁴Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: “Trip Reduction Program”

⁵Supports the TCMs in the Serious Area PM-10 Plan and CO Maintenance Plan: “Areawide Public Awareness Program” and “Employer Rideshare Program Incentives”

⁶Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: “Encouragement of Bicycle Travel”

⁷Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: “Development of Bicycle Travel Facilities”

⁸Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: “Encouragement of Pedestrian Travel”

⁹Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: “Coordinate Traffic Signal Systems”

¹⁰Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: “Develop Intelligent Transportation Systems”

¹¹NS- No CMS Score is currently available

¹²NB- No Benefit

**ROLE OF THE MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE
IN THE CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ)
PROJECT EVALUATION PROCESS**

CMAQ Projects for the Transportation Improvement Program

- Forward the evaluation of proposed CMAQ projects for the MAG Transportation Improvement Program to the MAG Transportation Review Committee and modal committees for use in prioritizing projects.
- Rank the Air Quality Projects to be forwarded to the MAG Transportation Review Committee.

Sequence of Committee Actions: Air Quality Technical Advisory Committee, Transportation Review Committee and Modal Technical Advisory Committees, Management Committee, Transportation Policy Committee, Regional Council.

PM-10 Certified Street Sweeper Projects

- Recommend a prioritized list of proposed PM-10 Certified Street Sweeper Projects for CMAQ funding and retain the prioritized list for any additional CMAQ funds that may become available due to year-end closeout, including redistributed obligation authority, or additional funding received by this region.

Sequence of Committee Actions: Air Quality Technical Advisory Committee, Management Committee, Regional Council.

Paving Unpaved Road Projects

- Rank the proposed Paving Unpaved Road Projects for CMAQ funding and forward to the MAG Transportation Review Committee.

Sequence of Committee Actions: Air Quality Technical Advisory Committee, Transportation Review Committee, Management Committee, Transportation Policy Committee, Regional Council.

MAG COMMITTEE STRUCTURE

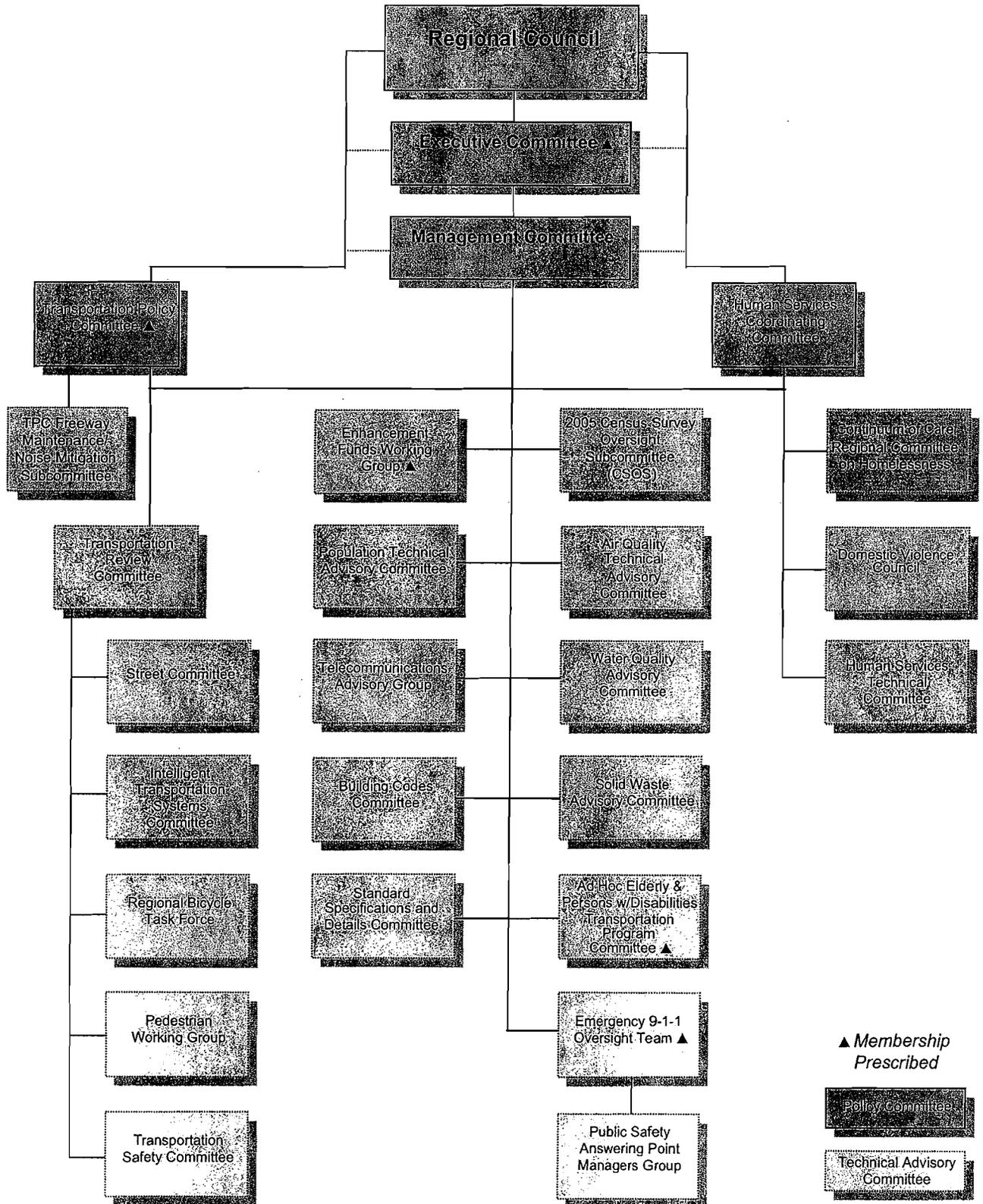


Figure 7: MAG Committee Structure

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM FACT SHEET

According to the final Congestion Mitigation and Air Quality Improvement (CMAQ) Program Guidance, effective October 31, 2006, the purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards for ozone, carbon monoxide, and particulate matter. Table 1 provides a description of the 16 project categories contained in federal CMAQ guidance as well as general activities and projects eligible for CMAQ funding. Table 1 also includes the CMAQ eligible projects and programs added from transportation reauthorization, Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU). Table 2 provides a list of ineligible CMAQ activities and projects.

The development of a CMAQ-eligible project may occur through a public-private partnership. Private entity proposals that benefit the general public by clearly reducing emissions require a legal written agreement between the public agency and private or nonprofit entity specifying the use of funds, roles and responsibilities of participating entities, cost sharing arrangements for capital investments and/or operating expenses, and how the disposition of land, facilities, and equipment should original terms of the agreement be changed. Eligible costs under this section may not include costs to fund an obligation imposed on private sector or nonprofit entities under the CAA or any other federal law except where the incremental portion of a project that exceeds the obligation under Federal law.

Table 1. Eligible CMAQ Activities and Projects

- 1. Transportation control measures (TCMs) found in 42 U.S.C. §7408(f)(1)**
 - programs for improved public transit
 - restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles
 - employer-based transportation management plans, including incentives
 - trip-reduction ordinances
 - traffic flow improvement programs that achieve emission reductions
 - fringe and transportation corridor parking facilities serving multiple-occupancy vehicle programs or transit service
 - programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use
 - programs for the provision of all forms of high-occupancy, shared ride services
 - programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place
 - programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas
 - programs to control extended idling of vehicles
 - programs to reduce motor vehicle emissions from extreme cold-start conditions
 - employer-sponsored programs to permit flexible work schedules
 - programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity
 - programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest

- 2. Extreme Low-Temperature Cold Start Programs**
 - retrofitting vehicles and fleets with water and oil heaters
 - installing electrical outlets and equipment in publicly-owned garages or fleet storage facilities

3. Alternative Fuels and Vehicles

- establishment of publicly-owned fueling facilities and other infrastructure needed to fuel alternative-fuel vehicles, unless privately-owned fueling stations are in place and reasonably accessible
- support the conversion of private fueling facility to support alternative fuels through a public-private partnership
- purchase of publicly-owned non-transit alternative fuel vehicles, including passenger vehicles, refuse trucks, street cleaners, and others
- costs associated with converting fleets to run on alternative fuels
- for private vehicles, the cost difference between alternative fuel vehicles and comparable conventional fuel vehicles
- hybrid vehicles that have lower emission rates than their non-hybrid counterparts
- hybrid passenger vehicles that meet EPA low emission and energy efficiency requirements for certification under the HOV exception provisions of SAFETEA-LU
- projects involving heavier vehicles, including refuse haulers and delivery trucks may be eligible based on a comparison of the emissions projections of these larger candidate vehicles and other comparable models

4. Congestion Reduction & Traffic Flow Improvements

- traditional traffic flow improvements, such as the construction of roundabouts, HOV lanes, left-turn or other managed lanes are eligible provided they demonstrate net emissions benefits
- Intelligent Transportation Systems (ITS) projects such as traffic signal synchronization projects, traffic management projects, and regional multimodal traveler information systems, traffic signal control systems, freeway management systems, electronic toll-collection systems, transit management systems, and incident management programs
- Value/Congestion Pricing projects that generate an emissions reduction, including, but not limited to: tolling infrastructure, such as transponders and other electronic toll or fare payment systems; small roadway modifications to enable tolling; marketing, public outreach efforts to expand and encourage the use of eligible pricing measures; and support services, such as transit in a newly tolled corridor
- innovative pricing approaches supported through the Value Pricing Pilot Program
- operating expenses for traffic flow improvements for a period not to exceed three years if shown to produce air quality benefits, if the expenses are incurred from new or additional services, and if previous funding mechanisms, such as fares or fees for services, are not displaced
- projects or programs that involve the purchase of integrated, interoperable emergency communications equipment

5. Transit Improvements

- new transit facilities (e.g., lines, stations, terminals, transfer facilities) are eligible if they are associated with new or enhanced mass transit service
- rehabilitation of a facility may be eligible if the vast majority of the project involves physical improvements that will increase capacity and results in an increase in transit ridership
- new transit vehicles (bus, rail, or van) to expand fleet or replace existing vehicles
- diesel engine retrofits, such as replacement engines and exhaust after-treatment devices, are eligible if certified or verified by the EPA or CARB
- other transit equipment may be eligible if it represents a major system-wide upgrade that will significantly improve speed or reliability of transit service, such as advanced signal and communications systems
- fuel, whether conventional or alternative fuel, is an eligible expense only as part of a project providing operating assistance for new or expanded transit service, including fuel and fuel additives considered diesel retrofit technologies by EPA or CARB
- operating assistance, including labor, fuel, maintenance, and related expenses, to introduce new transit service or expand existing transit service is eligible for a maximum of 3 years
- regular transit fares may be subsidized as part of a comprehensive area-wide program to prevent exceedances of NAAQS during periods of high pollutant levels; must be combined with a marketing program to inform SOV drivers of other transportation options

6. Bicycle and Pedestrian Facilities and Programs

- construction of bicycle and pedestrian facilities (paths, bike racks, support facilities, etc.) that are not exclusively recreational and reduce vehicle trips
- non-construction outreach projects related to safe bicycle use
- establishment and funding of State bicycle/pedestrian coordinator positions for promoting and facilitating nonmotorized transportation modes through public education, safety programs, etc.

7. Travel Demand Management

- activities explicitly aimed at reducing SOV travel and associated emissions including fringe parking, traveler information services, shuttle services, guaranteed ride home programs, market research and planning in support Transportation Demand Management implementation, carpools, vanpools, traffic calming measures, parking pricing, variable road pricing, telecommuting, and employer-based commuter choice programs
- capital expenses and up to 3 years of operating assistance to administer and manage new or expanded TDM programs
- marketing and outreach efforts to expand use of TDM measures may be funded indefinitely, but only if broken out as distinct line items
- telecommuting activities including planning, preparing technical and feasibility studies, and training

8. Public Education and Outreach Activities

- a wide range of public education and outreach activities, including activities that promote new or existing transportation services, developing messages and advertising materials (including market research, focus groups, and creative), placing messages and materials, evaluating message and material dissemination and public awareness, technical assistance, programs that promote the Tax Code provision related to commute benefits, transit “store” operations, and any other activities that help forward less-polluting transportation options

9. Transportation Management Associations

- TMA start-up costs and up to 3 years of operating assistance

10. Carpooling and Vanpooling

- carpools and vanpools marketing covers existing, expanded, and new activities to increase the use of carpools and vanpools and includes the purchase and use of computerized matching software and outreach to employers and guaranteed ride home programs
- vanpool vehicle capital costs include purchasing or leasing vans that do not directly compete with or impede private sector initiatives; vanpool operating expenses are limited to 3 years and include empty-seat subsidies, maintenance, insurance, administration, and other related expenses

11. Freight/Intermodal

- projects and programs (e.g. new diesel engine technology or retrofits of vehicles or engines, nonroad mobile freight projects) that provide a transportation function and target freight capital costs including rolling stock or ground infrastructure are eligible provided that air quality benefits can be demonstrated

12. Diesel Engine Retrofits & Other Advanced Truck Technologies

- applicable to onroad motor vehicles and nonroad construction equipment, project types in the diesel retrofit area include: diesel engine replacement, full engine rebuilding and reconditioning, the purchase and installation of after-treatment hardware including particulate matter traps and oxidation catalysts, and other technologies, and support for heavy-duty vehicle retirements programs
- purchase and installation of emission control equipment on school buses
- refueling projects (e.g., ultra-low sulfur diesel), but only if required to support the installation of emissions control equipment, repowering, rebuilding, or other retrofits of nonroad engines and only until the standards are effective and the fuel becomes commonly available through the regional supply and logistics chain. Eligible costs are limited to the difference between standard nonroad diesel fuel and ULSD
- outreach activities that provide information exchange and technical assistance to diesel owners and operators on retrofit options
- under a public-private partnership, projects for upgrading long-haul heavy-duty diesel trucks with advanced technologies, such as idle reduction devices, cab and trailer aerodynamic fixtures, and single-wide or other efficient tires are eligible

13. Idle Reduction

- capital costs of off-board projects (e.g., truck stop electrification projects) that reduce emissions and are located within, or in proximity to and primarily benefitting a nonattainment or maintenance area
- capital costs of on-board projects (e.g., auxiliary power units, direct fired heaters, etc.) the heavy-duty vehicle must travel within, or in proximity to and primarily benefitting a nonattainment or maintenance area

14. Training

- funds to support training and educational development for the transportation workforce must be directly related to implementing air quality improvements and be approved in advance by the FHWA Division Office

15. Inspection/Maintenance (I/M) Programs

- for publicly or privately owned I/M facilities that constitute new or additional efforts eligible activities include construction of facilities, purchase of equipment, I/M program development, and one-time start-up activities, such as updating quality assurance software or developing a mechanic training curriculum
- operating expenses are eligible for a maximum of three years
- State or local I/M program related administrative costs are eligible in States that rely on privately owned I/M facilities
- privately-owned I/M facilities such as service stations, that own the equipment and conduct emission test-and-repair services, requires a public-private partnership
- establishment of “portable” I/M programs, including remote sensing providing that they are public services, reduce emissions, and meet relevant regulations

16. Experimental Pilot Projects

- an “experimental” project or program must be defined as a transportation project and be expected to reduce emissions by decreasing vehicle miles traveled (VMT), fuel consumption, congestion, or by other factors

Table 2. Ineligible CMAQ Activities and Projects

- 1. Projects outside of the nonattainment or maintenance area boundaries, except in cases where the project is located in close proximity to the nonattainment or maintenance area and the benefits will be realized primarily within the nonattainment or maintenance area**
- 2. Light-duty vehicle scrappage programs**
- 3. Projects that add new capacity for single-occupancy vehicle (SOV) are ineligible for CMAQ funding unless construction is limited to high occupancy vehicle (HOV) lanes**
- 4. Routine maintenance and rehabilitation projects (e.g., replacement-in-kind of track or other equipment, reconstruction of bridges, stations, and other facilities, and repaving or repairing roads) are ineligible for CMAQ funding as they only maintain existing levels of highway and transit service, and therefore do not reduce emissions**
- 5. Administrative costs of the CMAQ program may not be defrayed with program funds**
- 6. Projects that do not meet the specific eligibility requirements under United States Code titles 23 or 49**
- 7. Stand-alone projects to purchase fuel, except in certain states**
- 8. Routine preventive maintenance for vehicles is not eligible as it only returns the vehicles to baseline conditions**
- 9. Operating assistance for truck stop electrification projects is not an eligible activity since these projects generate their own revenue stream and can therefore recover all operating expenses**

TABLE 5-5

FUNDING PERCENT BY MODE (Expressed by Percentage)								
Mode	Program Area	½ Cent	ADOT Funds	FTA (5307)	FTA (5309)	CMAQ	MAG-STP	Total Regional Funding
Freeways	Capital	52.0	100.0	0.0	0.0	19.1	0.0	55.0
	Operations	4.2	0.0	0.0	0.0	0.0	0.0	2.2
	Total	56.2	100.0	0.0	0.0	19.1	0.0	57.3
Streets	Capital	10.2	0.0	0.0	0.0	13.4	100.0	9.3
Buses	Capital	4.2	0.0	90.6	12.7	0.0	0.0	8.4
	Operations	11.9	0.0	0.0	0.0	0.0	0.0	6.4
	Total	16.0	0.0	90.6	12.7	0.0	0.0	14.8
LRT	Capital	14.4	0.0	0.0	87.3	35.9	0.0	14.7
Other Transit	Capital	0.4	0.0	9.4	0.0	0.0	0.0	0.8
	Operations	2.5	0.0	0.0	0.0	0.0	0.0	1.3
	Total	2.9	0.0	9.4	0.0	0.0	0.0	2.1
Planning	Programs	0.4	0.0	0.0	0.0	0.0	0.0	0.2
Bicycle/ Pedestrian	Capital	0.0	0.0	0.0	0.0	17.0	0.0	0.8
Air Quality	Programs	0.0	0.0	0.0	0.0	14.6	0.0	0.7
Total Funding	Capital	81.1	100.0	100.0	100.0	85.4	100.0	89.1
	Operations	18.9	0.0	0.0	0.0	14.6	0.0	10.9
	Total	100.0						
Percent Funding by Major Mode								
Freeways		56.2	100.0	0.0	0.0	19.1	0.0	57.3
Streets		10.2	0.0	0.0	0.0	13.4	100.0	9.3
Transit		33.3	0.0	100.0	100.0	35.9	0.0	31.7
Other		0.4	0.0	0.0	0.0	31.6	0.0	1.8
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Maricopa Association of Governments

CMAQ DETAILED PROJECT LISTING REPORT (FY 2006)

05-September-2007

Fiscal Year = '2006' 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)	CONTINUING PROJECT?
Arizona	11/20/2010	\$32,950,007	\$37,987,644	115 %									
Arizona					\$1,867,091	I/M and Other TCMs	MAG: PM-10 Certified Street Sweeper Program PM-10 Certified Street Sweeper Program				3,974		
Arizona					\$201,772	I/M and Other TCMs	MAG: Regional Videoconferencing System and Hub Site Support & Administration Regional Videoconferencing System	2	1	1	1		
Arizona					\$117,903	I/M and Other TCMs	MAG: Regional System Planning Regional System Planning	QA	QA	QA	QA		
Arizona					\$2,240,000	Pedestrian/Bicycle	Phoenix: Construct underpass at 51st Ave. and Arizona Canal Diversion Channel Construct multiuse underpass	2	21	1	1		
Arizona					\$1,658,000	Pedestrian/Bicycle	Mesa: Construct South Canal multiuse path between McKellips Rd and McDowell Rd Construct multiuse path	1	12	1	1		
Arizona					\$51,414	Pedestrian/Bicycle	MAG: Regional Pedestrian Planning Regional Pedestrian Planning	QA	QA	QA	QA		
Arizona					\$50,000	Pedestrian/Bicycle	Avondale: Pedestrian improvements on McDowell Rd. - Agua Fria River to 119th Ave Design pedestrian improvements	1	2	1	1		
Arizona					\$2,253,629	Shared Ride	Tempe: Construct regional park-and-ride at Loop 101 and Apache Blvd Construct regional park-and-ride	1	8	1	1		
Arizona					\$2,220,300	Shared Ride	Chandler: Design regional park-and-ride near Loop 202 and Arizona Avenue Design regional park-and-ride	3	33	2	3		
Arizona					\$910,000	Shared Ride	MAG: Trip Reduction Program Trip Reduction Program	447	4,651	349	357		

CMAQ DETAILED PROJECT LISTING REPORT (FY 2006)

05-September-2007

Fiscal Year = '2006' 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)	CONTINUING PROJECT?
Arizona					\$695,565	Shared Ride	Mesa: Acquire right-of-way for regional park-and-ride at Loop 202 and Power Rd Acquire right-of-way for regional park-and-ride	4	43	3	3		
Arizona					\$660,000	Shared Ride	MAG: Regional Rideshare Program Regional Rideshare Program	312	3,243	244	249		
Arizona					\$623,700	Shared Ride	Valley Metro: Purchase 22 vanpool vehicles to expand fleet Purchase vanpool vehicles	5	51	4	4		
Arizona					\$300,000	Shared Ride	MAG/Valley Metro: Telework & Ozone Outreach Program Telework & Ozone Outreach Program	579	6,023	452	462		
Arizona					\$135,000	Shared Ride	MAG: Travel Reduction Program Travel Reduction Program	4	41	3	3		
Arizona					\$1,890,000	Traffic Flow Improvements	ADOT: Install fiber-optic cable on Loop 101 between I-10 and I-17 Install fiber-optic cable	438	1,269	70			
Arizona					\$1,869,373	Traffic Flow Improvements	MAG: Traffic Signal Optimization Program Traffic Signal Optimization Program and Regional Community Network Implementation and Coordinate Regional Smart Corridor	QA	QA	QA			
Arizona					\$1,410,000	Traffic Flow Improvements	ADOT: Construct interchange improvements at I-10 and 43rd Ave and 51st Ave Construct traffic interchange improvements	1	1	1			
Arizona					\$845,600	Traffic Flow Improvements	Phoenix: Install wireless communications in areas citywide Install wireless communications	63	173	45			
Arizona					\$665,000	Traffic Flow Improvements	Glendale: Install signal system on Bell Rd. from 51st Ave. to 83rd Ave. Install computerized signal system	7	-13	4			

CMAQ DETAILED PROJECT LISTING REPORT (FY 2006)

05-September-2007

Fiscal Year = '2006' 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)	CONTINUING PROJECT?
Arizona					\$664,607	Traffic Flow Improvements	ADOT: Construct traffic interchange improvements at Interstate-10 and Ray Rd. Construct traffic interchange improvements	1	2	1			
Arizona					\$100,294	Traffic Flow Improvements	Tempe: Install connections between ADOT FMS and 22 traffic interchanges Install ITS connections	49	99	37			
Arizona					\$94,300	Traffic Flow Improvements	Chandler: Design fire and police department signal system integration Design signal system integration and variable message signs	1	3	1			
Arizona					\$11,763,536	Transit	METRO: Construct fixed guideway Central Phoenix - East Valley Construct fixed guideway and intermodal transfer facility	102	1,036	81	82		
Arizona					\$2,040,000	Transit	Valley Metro: Purchase 6 standard buses to replace older buses Purchase buses	1	4		1		
Arizona					\$1,810,560	Transit	Phoenix: Purchase 6 standard buses to replace older buses Purchase buses	1	4		1		
Arizona					\$550,000	Transit	Scottsdale: Design Arizona State University - Scottsdale Transit Center Design transit center	1	11	2	1		
Arizona					\$300,000	Transit	Scottsdale: Purchase 1 trolley Purchase trolley	0	3	1	1		
Nationwide Totals		\$32,950,007	\$37,987,644	115 %									

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



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

September 18, 2007

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: EVALUATION OF PROPOSED PM-10 PAVING UNPAVED ROAD PROJECTS FOR FY 2010 CMAQ FUNDING

The Maricopa Association of Governments staff has evaluated proposed PM-10 Paving Unpaved Road Projects for emission reductions and corresponding cost-effectiveness for FY 2010 Congestion Mitigation and Air Quality Improvement (CMAQ) funding. For FY 2010, six projects requesting approximately \$7.1 million in federal funds were received. The evaluation of these projects is included in the attachment. The proposed projects have been listed in order of cost-effectiveness based on the amount of CMAQ funding requested. Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to rank the PM-10 Paving Unpaved Road Projects for FY 2010 CMAQ funding to be forwarded to the MAG Transportation Review Committee.

BACKGROUND

The Regional Transportation Plan, adopted by the MAG Regional Council, 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 50 or more vehicles per day. The FY 2008-2012 MAG Transportation Improvement Program identifies \$3,500,000 in FY 2010 CMAQ funding for Paving Unpaved Road Projects. On August 6, 2007, MAG solicited PM-10 Paving Unpaved Road Projects from member agencies in the Maricopa County PM-10 Nonattainment Area. Project requests were due by September 7, 2007.

EVALUATION AND PROJECT RANKING

MAG staff estimated the emission reductions and cost-effectiveness using CMAQ funding requested, based on the methodology contained in the Methodologies for Evaluating Congestion Mitigation and Air Quality Improvement Projects, August 15, 2005. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection.

The evaluation of the proposed FY 2010 PM-10 Paving Unpaved Road Projects is included in the attachment. The proposed projects have been listed in ascending order of cost-effectiveness based on the amount of CMAQ funding requested.

Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to rank the proposed PM-10 Paving Unpaved Road Projects for FY 2010 CMAQ funding to be forwarded to the MAG Transportation Review Committee. The MAG Transportation Review Committee may make a recommendation for a TIP amendment for Paving Unpaved Road Projects on October 25, 2007.

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

Attachment

Proposed PM-10 Paving Unpaved Road Projects For FY 2010 CMAQ Funding

\$ 3.5 million available in FY 2010 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted	Emission Reduction Weighted	Emission Reduction Weighted	Emission Reduction Weighted	Cost Effectiveness (\$/met.ton)	CMAQ Funds Requested	Total Cost
					TOG(kg/day)	NOX(kg/day)	PM10(kg/day)	Total(kg/day)			
Phoenix*	Various locations Citywide	Pave unpaved alleys	2010	44.0	0.00	0.00	266.28	266.28	\$1,026	\$1,484,000	\$2,120,000
El Mirage	Varney Road to north, Peoria Avenue to the south, Dysart Road to the west, and El Mirage Road to the east.	Pave unpaved roads	2010	3.4	0.00	0.00	309.02	309.02	\$1,251	\$2,100,000	\$3,000,000
Chandler	Various locations Citywide	Pave unpaved alleys	2010	10.0	0.00	0.00	60.52	60.52	\$1,429	\$469,500	\$939,000
Fort McDowell	Fort McDowell Yavapai Nation Pave Dirt Road Program.	Pave unpaved roads	2010	4.7	0.00	0.00	187.73	187.73	\$1,614	\$1,645,000	\$2,350,000
El Mirage	Santa Fe Lane & Grand Avenue to the north, Thunderbird Avenue to the south, 5th Avenue to the west, and Luna Street to the east	Pave unpaved alleys	2010	2.1	0.00	0.00	76.25	76.25	\$1,840	\$762,000	\$1,270,000
Youngtown	Dysart Rd. & Bell Rd.	Pave unpaved alleys	2010	8.5	0.00	0.00	51.44	51.44	\$2,506	\$700,000	\$1,000,000

* Paving locations vary, but nearly half of the locations are within 1/4 to 1/2 mile of PM-10 monitors.



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

September 18, 2007

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: EVALUATION OF PROPOSED PM-10 CERTIFIED STREET SWEEPER PROJECTS FOR FY 2008 CMAQ FUNDING

The Maricopa Association of Governments staff has evaluated proposed PM-10 Certified Street Sweeper Projects for emission reductions and corresponding cost-effectiveness for FY 2008 Congestion Mitigation and Air Quality Improvement (CMAQ) funding. Eighteen projects requesting approximately \$3.07 million in federal funds were received. The evaluation of these projects and supplemental information are included in the attachment. The proposed projects have been listed in order of cost-effectiveness based on the amount of CMAQ funding requested. Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to recommend a prioritized list of PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ funding and to retain the prioritized list for any additional FY 2008 CMAQ funds that may become available due to year-end closeout, including any redistributed obligation authority, or additional funding received by this region.

BACKGROUND

The FY 2008 Unified Planning Work Program and FY 2008-2012 MAG Transportation Improvement Program contain \$1,110,000 in FY 2008 CMAQ funding to encourage the purchase and utilization of PM-10 certified street sweepers. The purpose of the CMAQ program is to fund projects and programs in nonattainment and maintenance areas that assist in achieving air quality standards. On August 6, 2007, MAG solicited PM-10 certified street sweeper projects from member agencies in the Maricopa County PM-10 Nonattainment Area. Eligible street sweepers are defined as those which have been certified by the South Coast Air Quality Management District as meeting that agency's Rule 1186 certification standards. Projects requests were due by September 7, 2007.

EVALUATION AND PROJECT RANKING

MAG staff estimated the emission reductions and cost-effectiveness using CMAQ funding requested, based on the methodology contained in the Methodologies for Evaluating Congestion Mitigation and Air Quality Improvement Projects, August 15, 2005. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection. The FY 2008 PM-10 Certified Street Sweeper Project requests,

evaluation, and supplemental information are provided in the attachment. The proposed projects have been listed in ascending order of cost-effectiveness based on the amount of CMAQ funding requested.

Following consideration of this information, the MAG Air Quality Technical Advisory Committee will be requested to make a recommendation on a prioritized list of proposed projects for FY 2008 CMAQ funding to the MAG Management Committee. After the MAG Regional Council approval of projects for funding, MAG will issue a formal notification to proceed with the purchase of the proposed street sweepers in a letter to the project sponsor. It is important to note that the project ranking will be retained for any additional FY 2008 CMAQ funds that may become available due to year-end closeout, including any redistributed obligation authority or additional funding received by this region.

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

Attachment

List of Proposed PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ Funding

\$1,110,000 available in FY 2008 of the FY 2008-2012 MAG Transportation Improvement Program

											Supplemental Information		
Agency	Federal Cost	Local Cost	Total Cost	Daily Emission Reduction (Kilograms/day)	Cost-Effectiveness (CMAQ dollar cost per annual metric ton reduced)	The requested certified street sweeper will:			If project is to expand or increase sweeping frequency, have additional local resources been committed for staff or equipment to support the project?		Please indicate in what geographical area(s) the requested certified street sweeper will operate	Number of certified street sweepers your agency has already purchased.	Does the requested sweeper satisfy a commitment by your agency in the SIP?
						Replace	Expand	Increase Frequency	Yes	No			
Gilbert (#1)	\$180,246	\$10,895	\$191,141	363	\$194			✓	✓		Guadalupe Rd (Arizona Ave to Higley Rd.)	10	No
Gilbert (#2)	\$180,246	\$10,895	\$191,141	296	\$238			✓	✓		McQueen Rd (Baseline Rd to Warner Rd.)	10	No
Gilbert (#3)	\$180,246	\$10,895	\$191,141	234	\$300			✓	✓		Greenfield Rd/Santan Village Pkwy (Warner Rd and Germann Rd.)	10	No
Goodyear (#1)	\$193,315	\$11,685	\$205,000	196	\$384			✓	✓		City limits from Dysart to Perryville and from Camelback to Patterson.	3	Yes
Chandler *	\$160,000	\$10,000	\$170,000	74	\$839	✓					City of Mesa boundary to Frye Rd, Alma School Rd to Interstate 10.	10	Yes
Surprise	\$174,271	\$14,116	\$188,387	72	\$948		✓		✓		Zone 7: North of Deer Valley Rd to Dynamite and 187 th Ave to 155 th Ave.	7	Yes
Subtotal	\$1,068,324												
Maricopa County (#1) +	\$165,025	\$9,975	\$175,000	66	\$979		✓			✓	County-maintained roads within 10 miles of PM-10 monitoring stations.	2	Yes
Maricopa County (#2) +	\$165,025	\$9,975	\$175,000	66	\$979		✓			✓	County-maintained roads within 10 miles of PM-10 monitoring stations.	2	Yes
Arizona State University	\$91,943	\$5,558	\$97,500	32	\$1,119	✓	✓			✓	Rio Salado Pkwy and Packard Dr to Spence Rd extension; Mill Ave to Rural Rd.	0	No
ADOT +	\$166,491	\$10,063	\$176,554	58	\$1,125	✓					State highways in western part of Valley.	4	Yes
Queen Creek	\$155,894	\$9,423	\$165,317	48	\$1,260		✓	✓	✓		Power Rd. To Meridian Rd; Germann Rd. To Empire Rd.	3	Yes
Phoenix (#1) *	\$198,000	\$12,000	\$210,000	41	\$1,902	✓					Camelback Rd to Pecos Rd, Central Ave to 107 th Ave and 111 th Ave.	36	Yes
Phoenix (#2) *	\$198,000	\$12,000	\$210,000	36	\$2,153	✓					Camelback Rd to Pecos Rd, Central Ave to 56 th St.	36	Yes
Peoria	\$196,280	\$11,864	\$208,144	28	\$2,761		✓	✓	✓		City wide.	6	Yes

									Supplemental Information				
Agency	Federal Cost	Local Cost	Total Cost	Daily Emission Reduction (Kilograms/day)	Cost-Effectiveness (CMAQ dollar cost per annual metric ton reduced)	The requested certified street sweeper will:			If project is to expand or increase sweeping frequency, have additional local resources been committed for staff or equipment to support the project?		Please indicate in what geographical area(s) the requested certified street sweeper will operate	Number of certified street sweepers your agency has already purchased.	Does the requested sweeper satisfy a commitment by your agency in the SIP?
						Replace	Expand	Increase Frequency	Yes	No			
Avondale	\$179,170	\$10,830	\$190,000	25	\$2,808		✓		✓		City wide.	4	Yes
Goodyear (#2)	\$155,595	\$9,405	\$165,000	2	\$37,155			✓	✓		Sweep municipal parking areas and adjoining residential streets.	3	Yes
Paradise Valley	\$140,000	\$35,000	\$175,000	1	\$69,267			✓	✓		Lincoln Dr, Tatum , and residential and collector streets town wide.	2	No
Mesa+	\$189,724	\$11,468	\$201,192	1	\$74,745		✓	✓	✓		Sweep adjacent to PM-10 monitor located at Broadway Rd and Brooks Circle and Price Rd to Mesa Dr and to city boundaries.	6	Yes
Total	\$3,069,471												

* Replaces older, less efficient, certified sweepers.

+ Proposed sweeper projects for Maricopa #1, Maricopa #2, Mesa, and ADOT indicate sweeping within ½ mile of a PM-10 monitor.