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December 8, 2008

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: REVISED MATERIALS FOR AGENDA ITEMS #4 AND #5 FOR THE  
DECEMBER 11, 2008 MAG AIR QUALITY TECHNICAL ADVISORY  
COMMITTEE MEETING

Since the mailing of the December 11, 2008 agenda packet, the materials have been revised for agenda item #4, Evaluation of Proposed PM-10 Paving Unpaved Road Projects for FY 2011 and FY 2012 CMAQ Funding and for agenda item #5, Evaluation of Proposed PM-10 Certified Street Sweeper Projects for FY 2009 CMAQ Funding. A copy of the revised materials is attached.

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

----- A Voluntary Association of Local Governments in Maricopa County

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

December 8, 2008

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 2011 AND FY 2012 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 2011 and FY 2012 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds. For FY 2011, twenty-two projects requesting approximately \$14.0 million in federal funds were evaluated. Also, for FY 2012, eleven projects requesting approximately \$9.4 million in federal funds were evaluated. The evaluation of the unpaved road, alley, and shoulder projects are included in the attachment. For each fiscal year, 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 2011 and FY 2012 CMAQ funding to be forwarded to the MAG Transportation Review Committee.

### BACKGROUND

The paving of dirt roads supports committed measures in the MAG Five Percent Plan for PM-10. The FY 2008-2012 MAG Transportation Improvement Program identifies \$3,658,362 in FY 2011 CMAQ funding and \$5,004,000 in FY 2012 CMAQ funding for Paving Unpaved Road Projects. A minimum local cash match of 5.7 percent on the CMAQ eligible portion of the project is required. On August 8, 2008, MAG solicited PM-10 Paving Unpaved Road Projects in the Maricopa County PM-10 Nonattainment Area from member agencies. Project requests were due by September 19, 2008.

### EVALUATION AND PROJECT RANKING

According to the Draft FY 2009 MAG Federal Fund Programming Principles, project applications are to be reviewed by the MAG Street Committee. On October 16 and October 22, 2008 the Street Committee conducted a review of the PM-10 Paving Unpaved Road project applications. A final review of the paving applications, including any clarified information from the applicant, was provided at the Street Committee meeting on November 12, 2008.

MAG staff estimated the emission reductions and cost-effectiveness using the CMAQ funding requested, based on the revised methodology that has been updated to be consistent with the methodology used in the MAG 2007 Five Percent Plan for PM-10. 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 2011 and FY 2012 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 2011 and FY 2012 CMAQ funding to be forwarded to the MAG Transportation Review Committee. The MAG Transportation Review Committee may consider the PM-10 Paving Unpaved Road Projects in January 2009. The recommendations may be considered by the MAG Management Committee, the Transportation Policy Committee, and the MAG Regional Council in February 2009.

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

Attachment

December 8, 2008

**Revised List of Proposed PM-10 Paving Unpaved Road Projects For FY 2011 CMAQ Funding**  
 \$3,658,362 available in FY 2011 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Project Description	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 (CMAQ dollars / metric ton)	CMAQ Funds Requested	Local Funds	Total Cost *
Fort McDowell Yavapai Nation	Hiawatha Hood Rd, SR-87 to 3 miles north (FMYN Phase 3)	Pave approximately 24 feet wide dirt road with an expected minimum cross-section of 4 inches of AC on up to 12 inches of subgrade, as determined by the geotechnical report. Anything more than that would be regarded as more than "paving of a dirt road" and FMYN will provide the additional costs. This roadway leads from State Route 87 north for over ten miles and is the primary access point for several Tribal Enterprises, which generate a lot of recreational and heavy truck traffic. 3 miles	Pave unpaved road	2011	3.0	0.00	0.00	1157.77	1157.77	\$179	\$1,122,877	\$67,873	\$1,190,750
Gilbert	Ryan Road Pavement Project	The Town of Gilbert plans to pave Ryan Road between Greenfield Road and 164th Street (approximately 2,580 feet).	Pave unpaved road	2011	0.5	0.00	0.00	108.91	108.91	\$275	\$162,760	\$9,840	\$172,600
Buckeye	North Watson Road and MC85 Phase I and Phase II	This project proposes to pave two lanes of 3" thick asphalt concrete on 4" of crushed aggregate North Watson Road, ~ 0.25 mile in length north. Phase II will be a continuation of the phase I project where Phase I is the environmental, utility and right of way clearance and Phase II is the construction and implementation of the plan.	Pave unpaved road	2011	0.2	0.00	0.00	40.80	40.80	\$291	\$64,456	\$3,896	\$68,352
Fort McDowell Yavapai Nation	Mustang Way, 1.5 miles north of Fort McDowell Rd, 4 miles north to the northern boundary (Rio Verde) (FMYN Phase 4)	Pave approximately 24 feet wide dirt road with a minimum depth of 3 inches of AC on up to 8 inches of subgrade, as determined by the geotechnical report. This roadway is the continuation of Fort McDowell Road (a MCDOT maintained facility), and connects to the rural community of Rio Verde approximately 5.5 miles north of where Fort McDowell Road currently ends. 4 miles	Pave unpaved road	2011	4.0	0.00	0.00	751.99	751.99	\$291	\$1,187,709	\$71,791	\$1,259,500
El Mirage	Westside Downtown Alley Paving Project	Paving existing unpaved alleys in the west side of the downtown area (West of El Mirage Road). The project termini is generally Santa Fe Lane to the north, Thunderbird Avenue to the south, 5th Avenue to the west, and El Mirage Road to the east. Alleys to be 16' edge to edge chip and seal with dust proof surface (millings) to edge of alley ROW.	Pave unpaved alleys	2011	1.7	0.00	0.00	67.70	67.70	\$604	\$222,000	\$24,500	\$246,500
<b>Subtotal</b>											\$2,759,802		
Salt River Pima-Maricopa Indian Community	SRP-MIC Pave Dirt Roads Program, Phase 1: McDonald Road and Mesa Drive	Pre-design, design and construction portion of phase 1 of up to 7 miles of dirt roads within the Salt River Pima-Maricopa Indian Community boundaries.	Pave unpaved road	2011	1.8	0.00	0.00	276.35	276.35	\$625	\$938,285	\$56,715	\$995,000

December 8, 2008

**Revised List of Proposed PM-10 Paving Unpaved Road Projects For FY 2011 CMAQ Funding**  
 \$3,658,362 available in FY 2011 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Project Description	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 (CMAQ dollars / metric ton)	CMAQ Funds Requested	Local Funds	Total Cost *
Maricopa County	17th Avenue, Maddock Road to Joy Ranch Road	Paving of an unpaved road in the PM-10 nonattainment area. Dust mitigation, including: Application of 2 inches of asphaltic concrete pavement on compacted native soil; thickened edges as appropriate; and 20 to 24-foot roadway width.	Pave unpaved road	2011	0.5	0.00	0.00	66.24	66.24	\$825	\$296,830	\$17,942	\$314,772
Buckeye	7th Street-Norton Drive from Beloit Road (South)	This project proposes to pave two lanes of 3" thick asphalt concrete on 4" of crushed aggregate on 7th Street, ~ 0.5 mile in length south from Beloit avenue. This road feeds the Town Waste Water Treatment Plant and Fire Training Facility and future Police Training Facility.	Pave unpaved road	2011	0.4	0.00	0.00	25.70	25.70	\$847	\$118,169	\$7,143	\$125,312
Maricopa County	88th Avenue, Deer Valley Road to Williams Road	Paving of an unpaved road in the PM-10 nonattainment area.	Pave unpaved road	2011	0.5	0.00	0.00	67.15	67.15	\$984	\$358,670	\$21,680	\$380,350
Maricopa County	White Wing Road, 171st Avenue (Cotton Lane) to 163rd Avenue (Sarival Avenue)	Paving of an unpaved road in the PM-10 nonattainment area. Dust mitigation, including: Application of 2 inches of asphaltic concrete pavement on compacted native soil; thickened edges as appropriate; and 20 to 24-foot roadway width.	Pave unpaved road	2011	1.0	0.00	0.00	126.45	126.45	\$1,002	\$687,885	\$41,580	\$729,465
Maricopa County	87th Avenue, Deer Valley Road to Peoria CL (Via Montoya Rd)	Paving of an unpaved road in the PM-10 nonattainment area.	Pave unpaved road	2011	0.3	0.00	0.00	25.43	25.43	\$1,348	\$186,146	\$11,252	\$197,398
Phoenix +	2011 CMAQ Alley Dust Proofing	This project will dust proof approximately 41 miles of unstabilized alleys within the City of Phoenix using a 3/8" Fractured Aggregate Surface Treatment (FAST) which provides a single application of rubberized asphalt and precoated chips to existing dirt alleys. Clearing, grubbing and subgrade preparation will be required for application of the material.	Pave unpaved alleys	2011	41.2	0.00	0.00	248.61	248.61	\$1,488	\$2,008,445	\$190,000	\$2,198,445
Surprise	Paving Dove Valley Road from 203rd Ave. to 187th Ave	This project will consist of paving approximately two miles of Dove Valley Road located between 203rd Ave. to 187th Ave. The improvements will consist of constructing cut off walls for minor drainage purposes. This project will reduce dust emission in this area.	Pave unpaved road	2011	2.0	0.00	0.00	114.11	114.11	\$1,544	\$956,800	\$68,200	\$1,025,000
Maricopa County	Briles Road, Reems Road (155th Ave) to end of maintenance (151st Ave)	Paving of an unpaved road in the PM-10 nonattainment area.	Pave unpaved road	2011	0.5	0.00	0.00	27.02	27.02	\$2,166	\$317,731	\$19,205	\$336,936

December 8, 2008

**Revised List of Proposed PM-10 Paving Unpaved Road Projects For FY 2011 CMAQ Funding**  
 \$3,658,362 available in FY 2011 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Project Description	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 (CMAQ dollars / metric ton)	CMAQ Funds Requested	Local Funds	Total Cost *
Tempe	Alley Stabilization	The city of Tempe has an ongoing alley reconstruction program which includes removing soil fines and old soil material and replacing with recycled asphalt (RAP). Approximately 130 miles of unpaved alleys remain. Funding this project will allow the city of Tempe to accelerate its stabilization program in order to reduce PM 10 emissions.	Pave unpaved alleys	2011	4.25	0.00	0.00	150.86	150.86	\$2,346	\$1,921,824	\$768,850	\$2,690,674
Youngtown	Youngtown Pave Dirt Alleys, Phase 1	Pre-design, design and paving of approximately 3.8 miles of dirt alleyways within the Town of Youngtown	Pave unpaved alleys	2011	3.8	0.00	0.00	67.70	67.70	\$3,005	\$1,104,959	\$66,790	\$1,171,749
Avondale	McDowell Road, Avondale Blvd to 107th Avenue	Starting at a point 800 ft west of 107th Ave and ending at a point 2600 ft west of 107th Ave there exists approx 1800 ft (.34 miles) of insufficient unpaved shoulder; the existing shoulders vary from 2 to 2.5 feet. Based upon dust that occurs when vehicular traffic pulls off the road and when the farmers pull off, the City would like to expand the shoulder width to 5-foot MCDOT criteria (Roadway Design Guidelines) Due to exist lane widths, there are no opportunities to re-stripe the roadway.	Pave unpaved shoulders	2011	0.34	0.00	0.00	3.54	3.54	\$7,115	\$136,800	\$8,373	\$145,173
Buckeye ++	Shoulder Paving Beloat Road from Miller to Rainbow	This project proposes to pave two shoulders of 2" thick asphalt concrete w/4" Aggregate base course on Beloat Road, ~ 3 miles in length (east-west).	Pave unpaved shoulders	2011	3	0.00	0.00	10.67	10.67	\$8,200	\$475,000	\$28,712	\$503,712
Avondale	Van Buren Street-99th Avenue to the Aqua Fria River	Along Van Buren Street there are six segments of roadway (1.44 Miles) from 99th Avenue west to the Aqua Fria River of insufficient unpaved shoulder where the exist paved shoulder is non-existent or it is does not meet the min width of 5 ft (MCDOT-Rdwy Design Manual). Due to exist lane widths, there is no opportunity to re-stripe the roadway.	Pave unpaved shoulders	2011	1.44	0.00	0.00	8.36	8.36	\$12,582	\$571,300	\$34,538	\$605,838
Avondale	Avondale Blvd-McDowell Road to Encanto	Starting at a McDowell Road and ending at Encanto there exists approximately 2600 ft (.39 miles) of insufficient unpaved shoulder on the Westside of Avondale Blvd. where the exist paved shoulder is non-existent or it does not meet the min width of 5 ft (MCDOT-Rdwy Design Manual). Due to exist lane widths, there is no opportunity to re-stripe the roadway.	Pave unpaved shoulders	2011	0.39	0.00	0.00	2.05	2.05	\$14,175	\$157,600	\$9,557	\$167,157

December 8, 2008

**Revised List of Proposed PM-10 Paving Unpaved Road Projects For FY 2011 CMAQ Funding**  
 \$3,658,362 available in FY 2011 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Project Description	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 (CMAQ dollars / metric ton)	CMAQ Funds Requested	Local Funds	Total Cost *
Avondale	Vermeersch/127th Avenue	Both shoulders of Vermeersch are non-existent causing a dust problem which has been a source of complaints and which has been documented by the County's AIR Quality Unit. A large number of trucks from the local quarry is the mainpoint of the dust. Shoulders would be installed from Lower Buckeye to Broadway. In addition, additional pavement will be added at all driveway locations (up to the right of way line).	Pave unpaved shoulders	2011	1.2	0.00	0.00	1.81	1.81	\$93,760	\$922,488	\$55,761	\$978,249
Goodyear	165th Ave from Watkins to Durango	This segment is currently 18.58' wide with curb and gutter on the east side, we propose to pave 6' of shoulder on the west half of the road to meet the city's typical cross section of a two lane road, this will provide two travel lanes preventing vehicles from driving on the dirt shoulder causing dust.	Pave unpaved shoulders	2011	0.25	0.00	0.00	0.04	0.04	\$576,621	\$124,462	\$7,523	\$131,985
<b>Total</b>											\$14,043,196		

+Phoenix project contains 4.4 miles of alleys to be paved within 1.0 mile of PM-10 monitors.

+ + Buckeye project contains a 1-mile segment within 1.0 mile of a PM-10 monitor.

\* Costs shown are only for construction portion of project.

December 8, 2008

**Revised List of Proposed PM-10 Paving Unpaved Road Projects For FY 2012 CMAQ Funding**  
 \$5,004,000 available in FY 2012 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Project Description	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 (CMAQ dollars / metric ton)	CMAQ Funds Requested	Local Funds	Total Cost *
Salt River Pima-Maricopa Indian Community	SRP-MIC Pave Dirt Roads Program, Phase 3: Dobson Road and Center Street	Design and construction portion of phase 3 of up to a total of 7 miles of dirt roads within the Salt River Pima-Maricopa Indian Community boundaries.	Pave unpaved road	2012	1.8	0.00	0.00	289.99	289.99	\$587	\$924,140	\$55,860	\$980,000
Gilbert	Walnut Road Pavement Project	The Town of Gilbert plans to pave Walnut Road between 162nd Street and 164th Street (approximately 1,290 feet).	Pave unpaved road	2012	0.3	0.00	0.00	27.23	27.23	\$589	\$87,038	\$5,262	\$92,300
El Mirage	Eastside Downtown Alley Paving Project	Paving existing unpaved alleys in the east side of the downtown area (East of El Mirage Road). The project termini is generally Grand Ave to the north, Thunderbird Avenue to the south, El Mirage Road to the west, and El Frio Street to the east. Alleys to be 16' edge to edge chip and seal with dust proof surface (millings) to edge of alley ROW.	Pave unpaved alleys	2012	2.2	0.00	0.00	86.02	86.02	\$602	\$281,000	\$31,100	\$312,100
Salt River Pima-Maricopa Indian Community	SRP-MIC Pave Dirt Roads Program, Phase 2: McDonald Road and Alma School Road	Design and construction portion of phase 2 of up to a total of 7 miles of dirt roads within the Salt River Pima-Maricopa Indian Community boundaries.	Pave unpaved road	2012	1.6	0.00	0.00	269.21	269.21	\$655	\$957,145	\$57,855	\$1,015,000
Gilbert	Bonanza Road Pavement Project	The Town of Gilbert plans to pave Bonanza Road between 156th Street and 157th Street (approximately 730 feet).	Pave unpaved road	2012	0.2	0.00	0.00	10.89	10.89	\$901	\$53,279	\$3,221	\$56,500
Surprise	Paving Dove Valley Road from 163rd Ave. to 179th Ave	This project will consist of paving approximately two miles of Dove Valley Road located between 163rd Ave. to 179th Ave. The improvements will consist of constructing cut off walls for minor drainage purposes. This project will reduce dust emission in this area.	Pave unpaved road	2012	2.0	0.00	0.00	114.11	114.11	\$1,544	\$956,800	\$68,200	\$1,025,000
<b>Subtotal</b>											\$3,259,402		
Phoenix +	2012 CMAQ Alley Dust Proofing	This project will dust proof approximately 40 miles of unstabilized alleys within the City of Phoenix using a 3/8" Fractured Aggregate Surface Treatment (FAST) which provides a single application of rubberized asphalt and precoated chips to existing dirt alleys. Clearing, grubbing and subgrade preparation will be required for application of the material.	Pave unpaved alleys	2012	40.0	0.00	0.00	238.31	238.31	\$1,553	\$2,009,471	\$190,000	\$2,199,471

December 8, 2008

**Revised List of Proposed PM-10 Paving Unpaved Road Projects For FY 2012 CMAQ Funding**  
 \$5,004,000 available in FY 2012 of the FY 2008-2012 MAG Transportation Improvement Program

Agency	Location	Project Description	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 (CMAQ dollars / metric ton)	CMAQ Funds Requested	Local Funds	Total Cost *
Fort McDowell Yavapai Nation	Hiawatha Hood Rd, 3 miles north to 7 miles north (FMYN Phase 6)	Pave approximately 24 feet wide dirt road with an expected minimum cross-section of 4 inches of AC on up to 12 inches of subgrade, as determined by the geotechnical report. This segment continues the paving of Hiawatha Hood Rd that was requested as Priority One. 4 miles	Pave unpaved road	2012	4.0	0.00	0.00	131.66	131.66	\$1,674	\$1,197,139	\$72,361	\$1,269,500
Fort McDowell Yavapai Nation	Ironwood, Harquahala and Sandtrap Rds (FMYN Phase 5)	Pave approximately 24 feet wide dirt road with a minimum depth of 3 inches of AC on 8 inches of subgrade, as determined by the geotechnical report. Anything more than that would be regarded as more than "paving of a dirt road" and FMYN will provide the additional costs. These are three separate roadways in the same southern area of the FMYN and all three connect at both ends to existing paved roadways. 3.6 miles.	Pave unpaved road	2012	3.6	0.00	0.00	104.95	104.95	\$2,075	\$1,182,522	\$71,478	\$1,254,000
Salt River Pima-Maricopa Indian Community	SRP-MIC Pave Dirt Roads Program, Phase 4: Mesa Drive and Roadrunner Road	Pre-design, design and construction portion of phase 1 of up to 7 miles of dirt roads within the Salt River Pima-Maricopa Indian Community boundaries.	Pave unpaved road	2012	2.0	0.00	0.00	65.83	65.83	\$2,453	\$876,990	\$53,010	\$930,000
Youngtown	Youngtown Pave Dirt Alleys, Phase 2	Pre-design, design and paving of approximately 3.1 miles of dirt alleyways within the Town of Youngtown	Pave unpaved alleys	2012	3.1	0.00	0.00	41.88	41.88	\$3,955	\$899,489	\$54,370	\$953,859
<b>Total</b>											<b>\$9,425,013</b>		

+ Phoenix project contains 1.6 miles of alleys to be paved within 1.1 miles of PM-10 monitors in the Salt River Area.

\* Costs shown are only for construction portion of project.

December 8, 2008

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 2009 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 2009 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds. Fifteen projects requesting approximately \$2.7 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 2009 CMAQ funding and to retain the prioritized list for any additional FY 2009 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 MAG 2007 Five Percent Plan for PM-10 contains the committed measure “PM-10 Efficient Street Sweepers”. The FY 2009 Unified Planning Work Program and FY 2008-2012 MAG Transportation Improvement Program contain \$1,210,000 in FY 2009 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. A minimum local cash match of 5.7 percent on the CMAQ eligible portion of the project is required.

On August 8, 2008, MAG solicited PM-10 certified street sweeper projects in the Maricopa County PM-10 Nonattainment Area from member agencies. Eligible street sweepers are defined as those which have been certified by the South Coast Air Quality Management District as meeting that agency’s Rule 1186 certification standards. Projects requests were due by September 19, 2008.

## EVALUATION AND PROJECT RANKING

According to the Draft FY 2009 MAG Federal Fund Programming Principles, project applications are to be reviewed by the MAG Street Committee. On October 16 and October 22, 2008 the Street Committee conducted a review of the PM-10 Certified Street Sweeper project applications. A final review of the sweeper applications, including any clarified information from the applicant, was provided at the Street Committee meeting on November 12, 2008.

MAG staff estimated the emission reductions and cost-effectiveness using the CMAQ funding requested, based on the revised methodology that has been updated to be consistent with the methodology used in the MAG 2007 Five Percent Plan for PM-10. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection. The FY 2009 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 2009 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 2009 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

December 8, 2008

Revised List of Proposed PM-10 Certified Street Sweeper Projects for FY 2009 CMAQ Funding

\$1,210,000 available in FY 2009 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			
Glendale (#1) *+	\$190,910	\$11,540	\$202,450	334	\$223	✓				✓	Within city limits.	9	Yes
Glendale (#2) *+	\$190,910	\$11,540	\$202,450	334	\$223	✓				✓	Within city limits.	9	Yes
Gilbert (#1)	\$199,331	\$12,049	\$211,380	210	\$371			✓	✓		Baseline Road (north), Val Vista Drive (east), Williams Field Road (south), and Lindsay Road (west)	12	No
Gilbert (#2)	\$199,331	\$12,049	\$211,380	191	\$407			✓	✓		Baseline Road (north), Gilbert Road (east), Ray Road (south), and Cooper Road (west)	12	No
Scottsdale *	\$148,618	\$8,983	\$157,601	109	\$530	✓			✓		North of Loop 101 to Carefree Highway, East of 56th Street to 144th Street	8	Yes
Phoenix (#1) *+	\$171,798	\$10,385	\$182,183	105	\$638	✓			✓		Camelback Road to Pecos, Central Avenue to 107th Avenue & 111th Avenue	36	Yes
<b>Subtotal</b>	<b>\$1,100,898</b>												
Phoenix (#2) *+	\$171,798	\$10,385	\$182,183	105	\$638	✓			✓		Camelback Road to Pecos, Central Avenue to 107th Avenue & 111th Avenue	36	Yes
Paradise Valley *	\$174,319	\$43,580	\$217,899	100	\$907	✓				✓	32nd St. to Scottsdale Rd.; Chaparral Rd. to Shea Blvd.	2	Yes
Tempe *	\$182,750	\$25,294	\$208,044	51	\$1,388	✓				✓	48th Street East to Evergreen Dr.; US 60 North to Continental Dr.	7	Yes
Scottsdale *	\$148,618	\$8,983	\$157,601	32	\$1,802	✓			✓		Via De Ventura to Thunderbird Rd, 60th Street to Pima Road	8	Yes
Salt River Pima-Maricopa Indian Community +	\$137,533	\$8,314	\$145,847	30	\$1,813	✓			✓		Within the boundaries of SRPMIC.	0	No
Chandler *+	\$209,097	\$12,639	\$221,736	7	\$11,917	✓			✓		Between Arizona Avenue and Gilbert Road and between Germann Rd and Warner Rd	10	Yes
Youngtown	\$164,659	\$10,000	\$174,659	5	\$14,021			✓	✓		From Grand Avenue to Olive Avenue and from 111th Avenue to 116th Avenue (1.12 square miles)	1	No

							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			
Buckeye	\$209,871	\$12,685	\$222,557	5	\$18,023		✓	✓	✓		Yuma Rd., Dean Rd. to Watson Rd.- Verrado Way I-10 to Indian School Rd	3	Yes
Buckeye	\$209,871	\$12,685	\$222,557	4	\$19,598		✓		✓		Apache Rd @ Yuma Rd, Beloit @ 255th Ave, Sundance Parkway @ Van Buren St, Hilton Ave @ Dean Rd (East of Dean)	3	Yes
<b>Total</b>	<b>\$2,709,414</b>												

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

\* Replaces older, less efficient, certified sweepers.

+ Proposed sweeper projects for Chandler, Glendale #1, Glendale #2, Phoenix #1, Phoenix #2, and Salt River Pima-Maricopa Indian Community indicate sweeping adjacent to a PM-10 monitor.