

MARICOPA ASSOCIATION OF GOVERNMENTS

INFORMATION SUMMARY... for your review

DATE:

January 23, 2014

SUBJECT:

Programming of Fiscal Years (FY) 2014, 2015, 2016, and 2017 Unpaved Dirt Road Projects for MAG Federal Highway Administration PM-2.5 Congestion Mitigation and Air Quality (CMAQ) Funding in the FY 2014-2018 MAG Transportation Improvement Program. An information update on the PM-10 Street sweepers is included.

SUMMARY:

The MAG Regional Transportation Plan (RTP) allocates MAG Federal CMAQ funds to specific modes, and, in some cases, identifies specific projects for the funds. Currently, the proposed estimated budget for the FY 2014-2018 MAG TIP has been updated with MAP-21 funding levels. The proposed PM-2.5 Paving Unpaved Dirt Road Projects for Years 2014, 2015, 2016, and 2017 is \$3,360,860 including carry forward from FY 2013. MAG relies on its competitive application process to program these funds. Applications were made available October 23, 2013 with a due date of November 22, 2013. There were three complete project applications submitted on time, and one agency requested project funding for design. Additionally during this open call for projects, FY 2014 PM-10 Street Sweeper applications were requested region wide. Sixteen street sweeper applications were evaluated by the Street Committee and thirteen eligible applications were evaluated for the emission reduction benefits.

On December 10th and January 14th the Street Committee conducted technical evaluations and review of the project applications. On January 22, 2014 the Air Quality TAC made a recommendation to rank the proposed PM-2.5 Paving Unpaved Road Projects for FY 2014, 2015, 2016, and 2017 CMAQ funding and forwarded the ranking to the MAG Transportation Review and MAG Management Committees. Funding levels for FY 2014 PM-10 CMAQ Street sweepers is \$1,230,599. This process follows the MAG Federal Fund Programming Principles approved by Regional Council in October 2011.

The attachments include a memorandum from the Chair of the Air Quality TAC that details the evaluation and ranking process used with the ranked list of projects, the List of Proposed PM-10 street sweepers includes the Daily Emission Reduction with Cost Effectiveness and displays available funds, the Street Committee Presentation & Review Note Sheet, and the project Costs with Recommended Programming for paving projects tables. The current level of funding, funds all three paving projects and funds six street sweepers. If additional CMAQ funds are identified prior to the close of FFY2014, additional street sweeper projects could be funded.

PUBLIC INPUT:

None.

PROS & CONS:

PROS: Approval of the rank order and funding for these projects will enable their inclusion in the Transportation Improvement Program (TIP) and will allow jurisdictions to develop their projects in a timely and integrated manner.

CONS: If these projects are not approved, the time to develop projects will be limited. Timely development of projects is needed to ensure that MAG federal funds are fully utilized each year, and to enhance opportunities for additional federal funds if available.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The paving of dirt road and alley projects supports committed measure “Reduce Particulate Emissions from unpaved roads and alleys: in the revised MAG 1999 Serious Area Particulate Plan for PM-10. The MAG 2012 Five Percent Plan for PM-10 includes the paving of unpaved roads. Project selection has been addressed by members of MAG technical advisory committees.

POLICY: The MAG federally funded program has been developed in accord with federal regulations and MAG policies. Air Quality Emission Reduction scores were presented at the modal committees and considered, and the program is fiscally balanced. The funding for the projects is based on a reasonable expectation that MAP-21 will be continued and/or extended through FFY2017, or that another surface transportation authorization will be enacted that continues the CMAQ program eligible activities.

ACTION NEEDED:

For information, discussion, and possible recommendation of a preferred scenario to forward to through the committee approval process. The final programming of pave unpaved road projects to be funded with Federal CMAQ funds, and the identified work phases and costs from the project application will be added to the Draft FY2014-2018 MAG Transportation Improvement Program if approved.

PRIOR COMMITTEE ACTIONS:

Air Quality Technical Advisory Committee (AQTAC): On January 22, 2014, the AQTAC recommended to forward a ranked list of paving projects, as shown in the attachment to the MAG Transportation Review Committee.

MEMBERS ATTENDING

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

Stan Belone, Salt River Pima-Maricopa Indian
Community

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

MAG Street Committee: The MAG Street Committee met on January 14, 2014 and completed the review of paving projects and street sweeper applications submitted for CMAQ funding.

MEMBERS ATTENDING

- | | |
|---|--|
| Dana Owsiany, Phoenix, Chair Woman | Bill Fay, Maricopa City |
| Patrick Stone for Steve Beasley ADOT | * Jack M. Lorbeer, Maricopa County |
| Charles Andrews, Avondale | Maria Angelica Deeb, Mesa |
| * Jose Heredia, Buckeye | * James Shano, Paradise Valley |
| Dan Cook, Chandler | Scott Bender, Pinal County |
| Jorge Gastelum, El Mirage | Dab Nissen for Ben Wilson, Peoria |
| * Aryan Lirange, FHWA | Janet Martin, Queen Creek |
| Wayne Costa, Florence | * Elaine Cabrera, Salt River Pima-Maricopa |
| Tim Oliver, Gila River Indian Community | Indian Community |
| * Michael Gillespie, Gilbert | Phil Kercher, Scottsdale |
| Bob Darr, Glendale | Suneel Garg, Surprise |
| Luke Albert for Hugh Bigalk, Goodyear | Isaac Chivera, Tempe |
| David Gu for Darryl Crossman, | * Jason Earp, Tolleson |
| Litchfield Park | Grant Anderson, Youngtown |
- * Members neither present nor represented by Proxy

CONTACT PERSON:

Teri Kennedy or Stephen Tate, (602) 254-6300

January 24, 2014

TO: Members of the MAG Transportation Review Committee

FROM: Philip McNeely, Phoenix, Chair of the MAG Air Quality Technical Advisory Committee

SUBJECT: MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION ON PROPOSED PAVING UNPAVED ROAD PROJECTS IN THE PINAL PM-2.5 NONATTAINMENT AREA FOR FISCAL YEARS 2014, 2015, 2016, AND 2017 CMAQ FUNDING

On January 23, 2014, the MAG Air Quality Technical Advisory Committee made a recommendation to forward the Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for FY 2014, 2015, 2016, and 2017 CMAQ funding to the MAG Transportation Review Committee (see attachment). Only one project was submitted for each year and funding is available to program all four projects. It is anticipated that the MAG Transportation Review Committee may make a recommendation to amend these projects into the FY 2014-2018 MAG Transportation Improvement Program.

The Moving Ahead for Progress in the 21st Century (MAP-21) legislation calls for States that have PM-2.5 nonattainment and maintenance areas to use a portion of its CMAQ funds for projects that reduce PM-2.5 in those areas. The Arizona Department of Transportation has allocated approximately \$672,000 in PM-2.5 CMAQ funding to MAG for programming projects that reduce PM-2.5 in portions of the Pinal PM-2.5 nonattainment area located within the planning boundaries of both MAG and the Sun Corridor Metropolitan Planning Organization. Jurisdictions in the Pinal PM-2.5 nonattainment area that could apply included the City of Maricopa and Pinal County as well as Pinal County as the lead agency for the City of Casa Grande. In fiscal years 2014-2017, \$3.36 million in CMAQ is estimated to be available. The estimated CMAQ amount is subject to change based on final funding levels from MAP-21. Project applications were due by November 22, 2013.

On December 10, 2013, the MAG Street Committee conducted a review of the applications for the Proposed Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for FY 2014, 2015, 2016, and 2017 CMAQ funding. On January 14, 2014, the Street Committee also considered the applications.

MAG staff conducted an evaluation of the proposed projects, including any revised information from the Street Committee, for the estimated emission reductions and corresponding cost-effectiveness, based on the September 30, 2011 CMAQ Methodologies. Federal CMAQ guidance requires that the estimated emission reductions for each project submitted for CMAQ funding be considered during project selection.

The estimated emission reductions and cost-effectiveness of the proposed fiscal year 2014, 2015, 2016, and 2017 Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area for each funding year are provided in the attachment. In total, four Paving Unpaved Road Projects in the Pinal PM-2.5 Nonattainment Area requesting approximately \$3.33 million in CMAQ funds were evaluated.

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

Attachment

JANUARY 23, 2014 MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE RECOMMENDATION

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

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

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

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

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

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

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

Agency	Location	Work Type	FY	Length (miles)	Emission Reduction Weighted TOG(kg/day)	Emission Reduction Weighted NOx(kg/day)	Emission Reduction Weighted PM-2.5 (kg/day)	Emission Reduction Weighted Total(kg/day)	Cost Effectiveness (\$/met.ton)	CMAQ Funds Requested
Pinal County - City of Casa Grande	S. Midway Rd. from W. Clayton Rd. to Casa Grande city limits and from Gila Bend Hwy. to W. Clayton Rd.	Construct Pave Dirt Road	2017	1.5	0.00	0.00	18.38	18.38	\$11,808	\$1,178,750
Subtotal										\$1,178,750
Amount Available										\$672,000
Balance										-\$506,750

List of Proposed PM-10 Certified Street Sweeper Projects for FY 2014 CMAQ Funding

\$1,230,599 in CMAQ Funding is Available for Sweeper Projects

										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:				Have local resources been committed for additional staff or equipment to support the sweeper project?		Please indicate in what geographical area(s) the requested certified street sweeper will operate	Number of certified street sweepers owned and operated by your agency. ++
						Replace non-certified sweeper	Expand	Increase Frequency	Replace older certified sweeper	Yes	No		
Tempe +	\$224,519	\$13,571	\$238,090	150	\$585				✓		✓	Ray Rd. to Continental Dr.; Evergreen Dr. to Priest Dr.	6
Phoenix #2 +	\$224,193	\$13,551	\$237,744	124	\$708				✓	✓		Area within city bounded by 111 th Ave. to 1 st Ave., W. Bethany Home Rd. to W. Pecos Rd.	34
El Mirage +	\$166,840	\$10,085	\$176,925	74	\$882				✓		✓	Northern Ave. north to Thompson Ranch Rd.; Dysart Rd. to the Agua Fria river bed	2
Queen Creek +	\$178,472	\$10,788	\$189,260	70	\$998				✓		✓	Major and minor arterial routes townwide from Power Rd. to Meridian Rd., and from Germann Rd. to Empire Rd.	4
Surprise #2 +	\$191,190	\$11,557	\$202,747	69	\$1,082				✓	✓		Citywide	8
Surprise #1 +	\$191,190	\$11,557	\$202,747	69	\$1,082				✓	✓		Citywide	8
Phoenix #1 +	\$224,193	\$13,551	\$237,744	62	\$1,407				✓		✓	Area within city bounded by 111 th Ave. to 1 st Ave., W. Bethany Home Rd. to W. Pecos Rd.	34
Subtotal	\$1,400,597												
Amount Available	\$1,230,599												
Balance	\$-169,998												
Goodyear	\$229,717	\$13,885	\$243,602	43	\$2,080				✓	✓		Dysart Rd. to Perryville Rd. from Camelback Rd. to Riggs Rd.	4
Pinal County +	\$225,784	\$13,648	\$239,432	20	\$4,381	✓					✓	Thompson Rd. to Quail Run Ln.; Bella Vista Rd. to Germann Rd.	3
Florence	\$177,496	\$10,729	\$188,225	7	\$10,270	✓	✓	✓			✓	Will operate in an area bounded by Arizona Farms Rd., East-West Hunt Hwy., Felix Rd., and North-South Hunt Hwy.	1
Mesa #1 +	\$241,720	\$14,611	\$256,331	9	\$10,967				✓		✓	Price Rd. to Signal Butte Rd. and Baseline Rd. to Thomas Rd.	7
Mesa #2 +	\$241,720	\$14,611	\$256,331	9	\$10,967				✓		✓	Price Rd. to Signal Butte Rd. and Baseline Rd. to Thomas Rd.	7
Litchfield Park	\$225,516	\$13,631	\$239,147	7	\$12,763		✓	✓			✓	Entire city	1
Total	\$2,742,550												

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

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

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

**Street Committee
Presentation and Review Note Sheet**

Paving Projects presented

Committee Discussion

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

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

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

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

Estimated Programming Costs for PM 2.5 Area Paving Projects

CMAQ PM2.5 Paving COSTS					
Work Phases	2014	2015	2016	2017	Grand Total
11. Design	264,040	-			264,040
12. Right of way and Utilities		-			-
13. Construction		529,522	1,360,119	1,178,750	3,068,391
Grand Total	264,040	529,522	1,360,119	1,178,750	3,332,431

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

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