

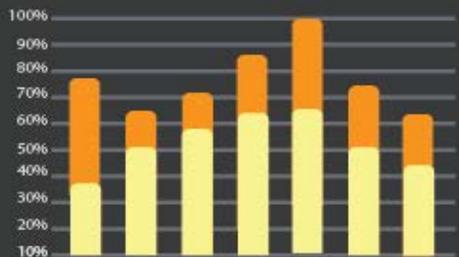
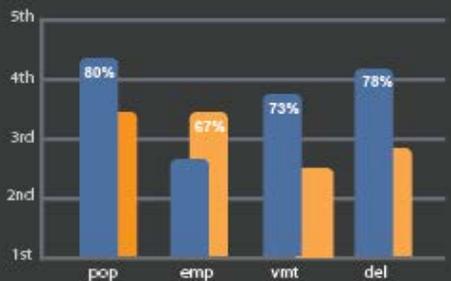
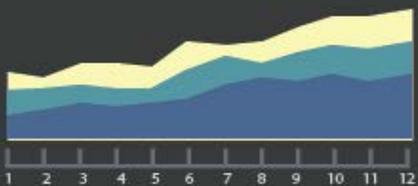
MAG Performance Program Update

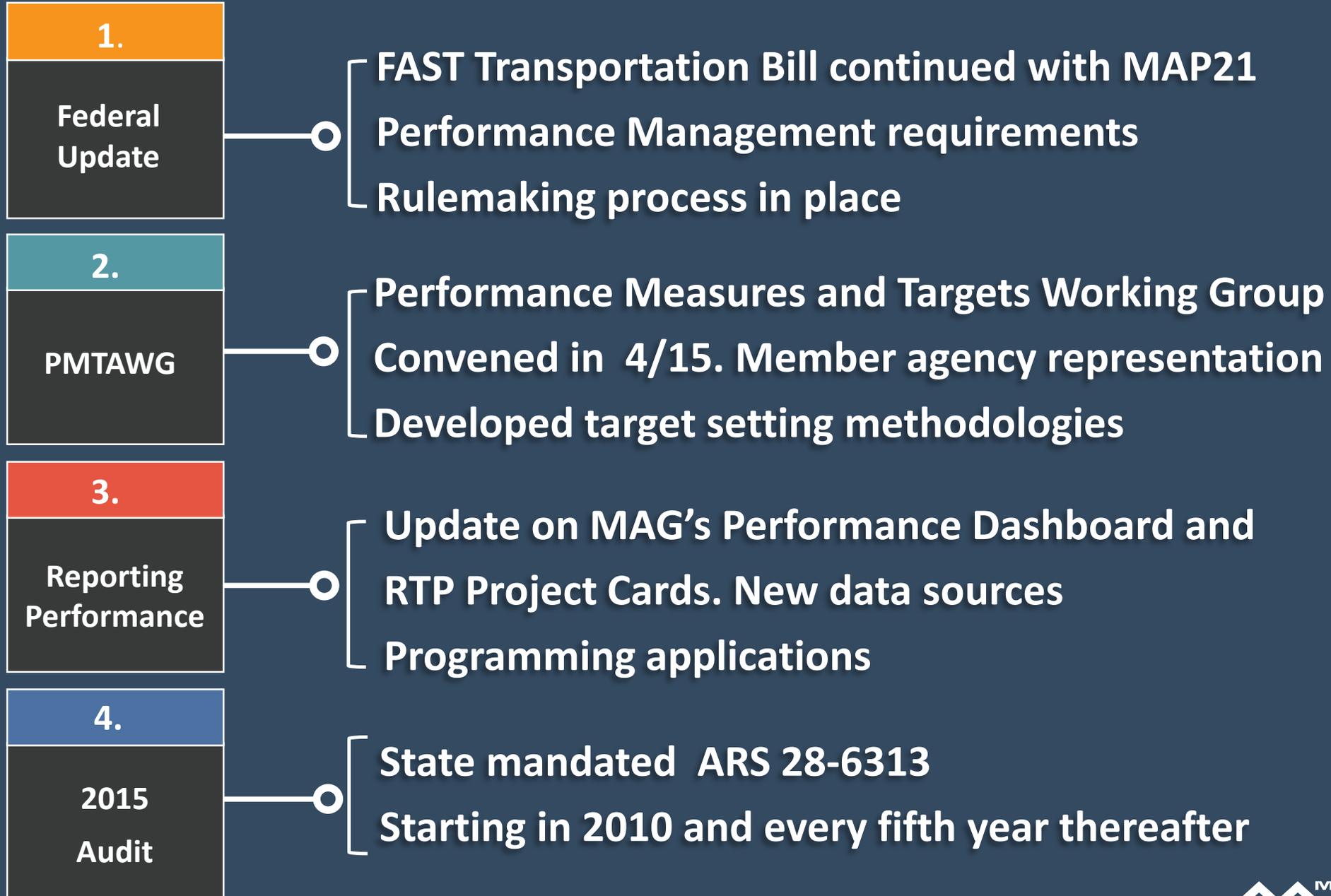
Transportation Policy Committee

April 20, 2016

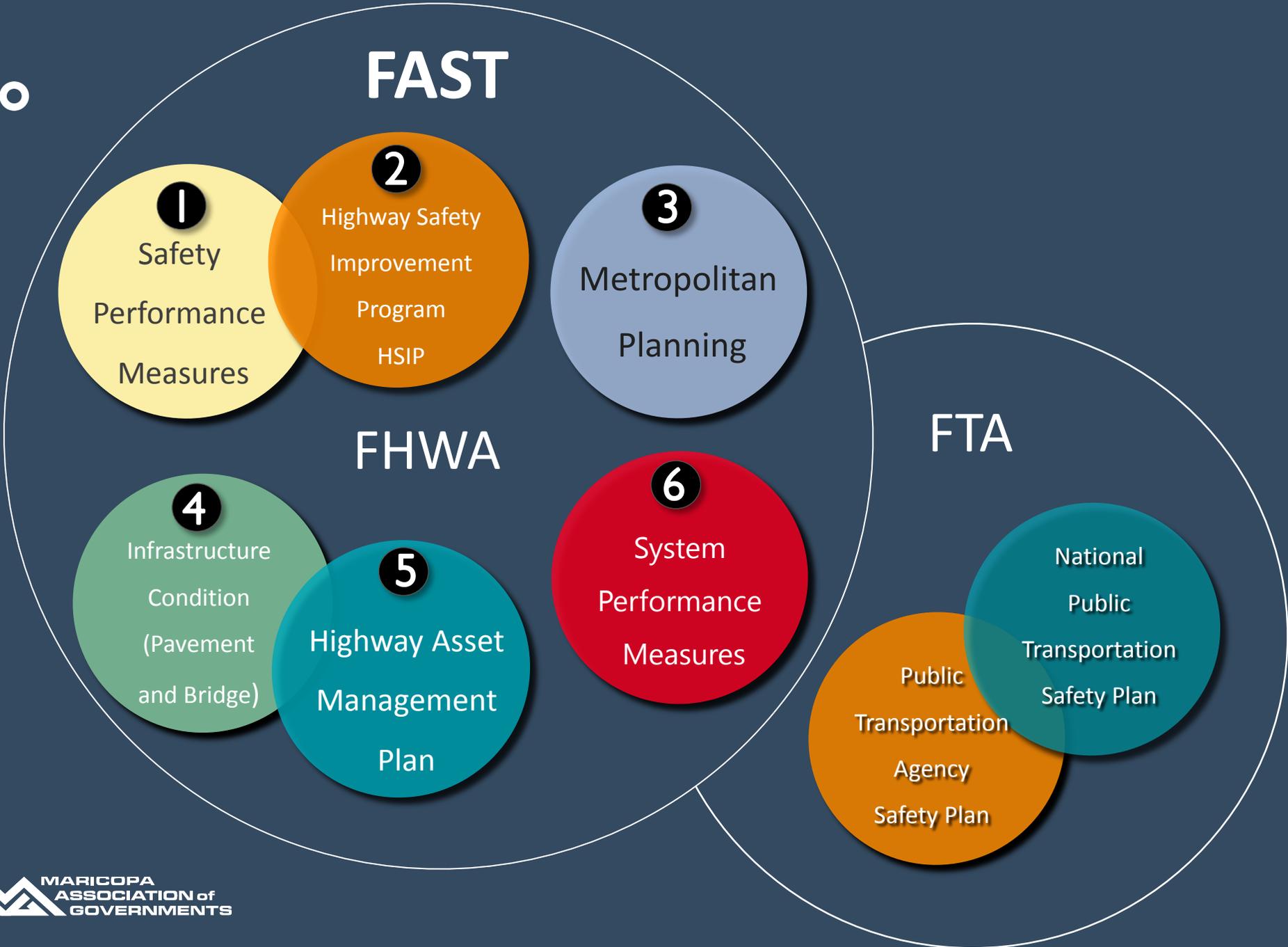


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1.
Federal Update



2.

PMTAWG

Performance Measures and Targets Working Group



- 9 member Agencies
- Meets quarterly
- Evaluated target setting methodologies
- Reviewed Scenarios
 - Observed Data
 - Modeled Data

System Level Analysis – Observed Data

Vehicle Miles Traveled VMT

	2010	2011	2012	2013	% Change 2010-13
Total Freeway VMT	29,087,000	29,495,000	29,073,330	29,400,899	1.08%
Total Arterial VMT	21,815,245	21,194,451	21,651,648	23,403,357	7.28%
Population of Phoenix-Mesa Urbanized Area	3,348,298	3,370,250	3,392,348	3,414,591	1.98%

Volumes

FREEWAY	Length (miles)	Av. AAWT GP Lanes all Years	AAWT % Change 2010-14	Av. PM Peak GP Lanes all Years	Av. PM Peak GP % Change 2010-14
I-10	24.94	712,493	1.17%	41,929.56	-3.04%
I-17	20.75	357,359	-6.62%	22,674.08	-8.86%
SR 51	15.05	241,455	-7.19%	16,359.30	-6.08%
Loop 202 - Red Mountain	16.73	237,878	-1.36%	16,905.12	-1.94%
US 60	18.43	449,753	-3.14%	29,441.71	-4.51%
SR 143	3.35	46,408	-15.26%	1,017.14	-17.62%
Loop 101 - Pima	37.99	951,791	0.98%	57,640.26	0.10%
COMPOSITE	137.25	428,163	-4.49%	26,566.74	-5.99%

System Level Analysis – Model Results

	2014	2025	2035	%change 2014-25	%change 2025-35
Population	4,277,647	5,307,941	6,201,367	24.09%	16.83%
SUPPLY MEASURES					
Lane Miles					
Freeways (GP)	2,352	2,649	3,048	12.65%	15.08%
Freeways (HOV)	371	500	527	34.87%	5.43%
Arterials	10,882	14,752	15,367	35.56%	4.16%
Demand Measures					
Daily VMT					
Freeways (GP)	33,327,022	42,004,100	52,439,397	26.04%	24.84%
Freeways (HOV)	4,315,463	5,915,375	6,782,783	37.07%	14.66%
Arterials	41,699,664	52,857,214	62,191,186	26.76%	17.66%
LOS Measures					
Congested LaneMiles					
Freeways(PM)	530	742	991	39.87%	33.63%
Arterials(PM)	253	459	798	81.41%	73.97%
Veh Hours of Delay					
VH Delay(PM) (Fwy,HOV,Art)	200,853	281,556	381,061	40.18%	35.34%

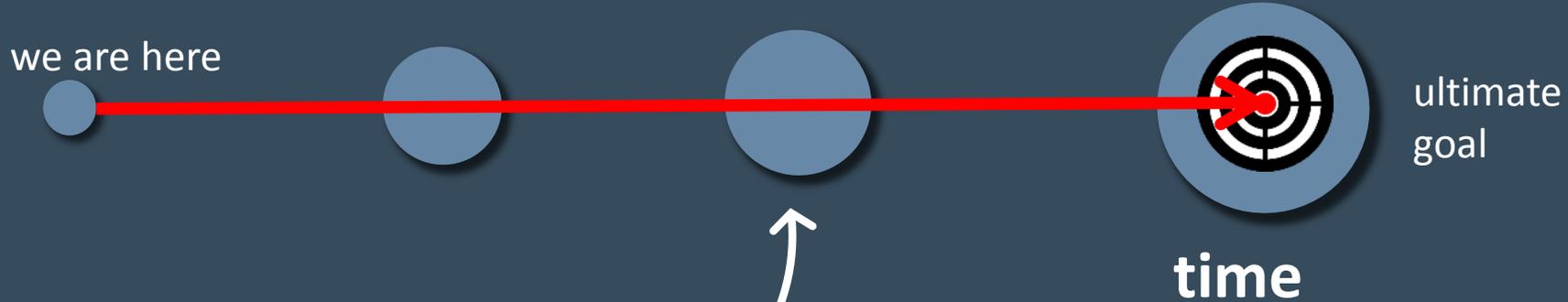
Source: MAG Travel Demand Model (20150424.10.11.15.TC6Conformity); Maricopa County portion of the modeling area

Note: Calculation of Daily Statistics was performed by the summation of performance measures for AM, MD, PM and Night Time Periods

2.

PMTAWG

Methodology



These indexes derived from ranges

- Travel Time Index
- Reliability – Planning Time Index
- Delay
- Extent of congestion

Performance Dashboard and RTP Cards

<http://performance.azmag.gov>

<http://projectcards.azmag.gov>

MAGnitude TRANSPORTATION PERFORMANCE

Freeways | Arterials | Transit | Non-Motorized

System | Corridor

ADOT FMS | Private Sector Data | 2009 | 2010 | 2011 | 2012 | 2013

Go to RTP Project Cards | Go to Analytical Tools

Annual Average VMT vs Cost of Gas/Gallon
Phoenix-Mesa, AZ

Year	Yearly Average \$/Gallon	Vehicle Miles (M) Traveled VMT*
2006	2.51	28.4
2007	2.61	28.5
2008	2.57	28.3
2009	2.5	28.0
2010	2.31	28.0

Average Daily Congestion Duration vs Average Daily VMT
(Per Lane-Mile)

Year	Avg. Daily Congestion Duration (minutes)	Avg. Daily VMT per Lane-Mile
2000	74	14,000
2001	65	14,500
2002	60	15,000
2003	55	15,500
2004	50	16,000
2005	60	16,500
2006	100	17,000
2007	110	17,500
2008	120	18,000
2009	100	18,500
2010	90	19,000
2011	80	19,500

Freeway PM Peak Speeds

Category	Speed (MPH)
General Purpose Lanes	55.95
HOV Lanes	61.35

Freeway Traffic Distributions for the MAG Region

Source: MAG Counts 2002-2011

Source: ADOT FMS

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I-10 Papago Project Card
SR-202 Red Mountain

Project Description
Sarival Ave to SR-101 Agua Fria - Addition of new eastbound and westbound lanes

Project Benefits
In need of widening and modernization, this was the first Interstate 10 widening project aimed at improving regional traffic flow in the West Valley.

Schedule

Year	Event
2004	Voter Approval
2005	Open to traffic
2006	DCR
2007	Design
2008	Design
2009	Construction
2010	Construction
2011	Open to traffic

Cost

Category	Expenditure (\$M)
Total	93
Construction	88.65
Design	4.35

Volumes

Year	Annual Average Weekday Traffic (Thousands of Vehicles)
2007	131
2008	125
2009	105
2010	106
2011	105

Source: ADOT FMS

2010 Audit Recommendations – Completed

			2012											
	Audit Recommendation	Implementation Plan Components	J	F	M	A	M	J	J	A	S	O	N	D
1	Formally identify and quantify RTP partners' expectations through the implementation of the RTP	<ul style="list-style-type: none"> Establishment of target scenarios for Highway and Arterial Performance Summary notes of RTP proposed rebalancing activities and changes 				●								
11	Document performance measures and priority criteria for selection, ranking and changes in corridors and projects	<ul style="list-style-type: none"> Continuation of Performance Report Updates Database entries for all CMP applications Summary of all CMP selection and priority criteria 	●				●							
14	Ensure documentation describes basis, source, deliberations, outcome, and rationale for resulting actions and decisions related to project and RTP changes	<ul style="list-style-type: none"> Summary notes of RPT partner meetings Minutes and summaries of policy decision meetings Links to all source material and web archives 	●	●										
15	Summarize and communicate data to MAG committees on options, alternatives, risks, opportunities and impacts for each alternative related to congestion or performance	<ul style="list-style-type: none"> Performance measurement updates to committees as a reference for discussion on options and alternatives for RTP changes Performance Dashboard reports 			●					●				
16	Ensure any additional information provided to individual committee members is distributed to all committee members as well as made available to the public	<ul style="list-style-type: none"> Complete identical mail-out packets to all committee members Web posting of Meeting agendas, all resource material and minutes for all MAG Committees 	●	●										
			2012											
	Audit Recommendation	Implementation Plan Components	J	F	M	A	M	J	J	A	S	O	N	D
2	Work with ADOT and member jurisdictions to establish coordinated performance targets and baselines for freeways and arterials	<ul style="list-style-type: none"> Coordination with ADOT on establishment of target scenarios for Highway 				●								
3	Measure and analyze all available performance data against set baselines to assess impact of projects on the overall system	<ul style="list-style-type: none"> Continuation of Performance Report Updates documenting system impacts Dashboard Reporting 		●						●				
7	Continue to implement the current transportation system and strive to continually reassess system performance to make modifications as necessary	<ul style="list-style-type: none"> Continuation of Performance Report Update Publication of performance analysis results in RTP Update Publication of performance analysis in Prop 400 Annual Report 		●								●	●	
10	Develop clear and specific criteria for ranking, and project changes in conjunction with RTP partners	<ul style="list-style-type: none"> Implementation of CMP in Modal Committees Target Scenario Development & Coordination with RTP Partners 				●		●						
12	Have MAG require the use of the Congestion Management Program (CMP) tool among local cities and counties to identify and prioritize projects	<ul style="list-style-type: none"> Implementation of CMP in Modal Committees Inclusion of CMP information in TIP and GIST Databases 				●		●						
13	Use a performance based model as part of project change and reprioritization process using factors like volume, capacity, and/or delays	<ul style="list-style-type: none"> Implementation of performance measures (by mode) in CMP applications at modal committees Inclusion of Non-Recurring congestion data to analyze bottlenecks and congestion hot-spots 				●				●				

MAGni↑ude
Transportation Performance Dashboard

 interactive visualization tool for regional multimodal transportation information and analysis

performance.azmag.gov
In collaboration with the Arizona Department of Transportation and Valley Metro

 **MARICOPA ASSOCIATION of GOVERNMENTS** www.azmag.gov

Regional Transportation Plan (RTP)
Project Cards

 informational viewer tool for all completed and underway RTP Freeway projects and Light Rail transit projects

projectcards.azmag.gov
In collaboration with the Arizona Department of Transportation and Valley Metro

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