

MAG Performance Program Update

Transportation Review Committee

March 31, 2016



1.

**Federal
Update**

2.

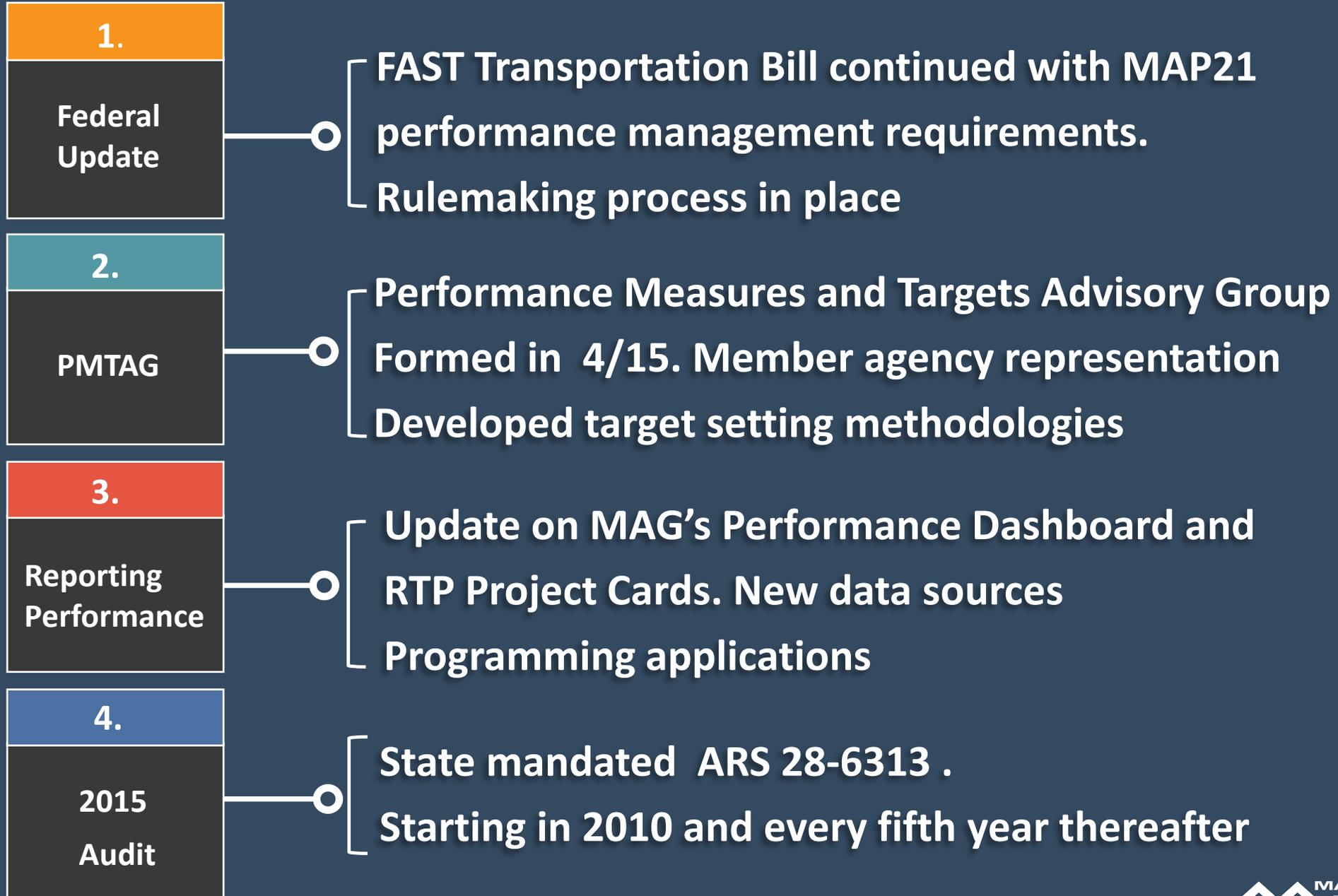
PMTAG

3.

**Reporting
Performance**

4.

**2015
Audit**





National Goals

- (1) Safety
- (2) Infrastructure Condition
- (3) Congestion Reduction
- (4) System Reliability
- (5) Freight Movement & Economic Vitality
- (6) Environmental Sustainability
- (7) Reduced Project Delivery Delays

1.
Federal Update

Performance Management Cycle



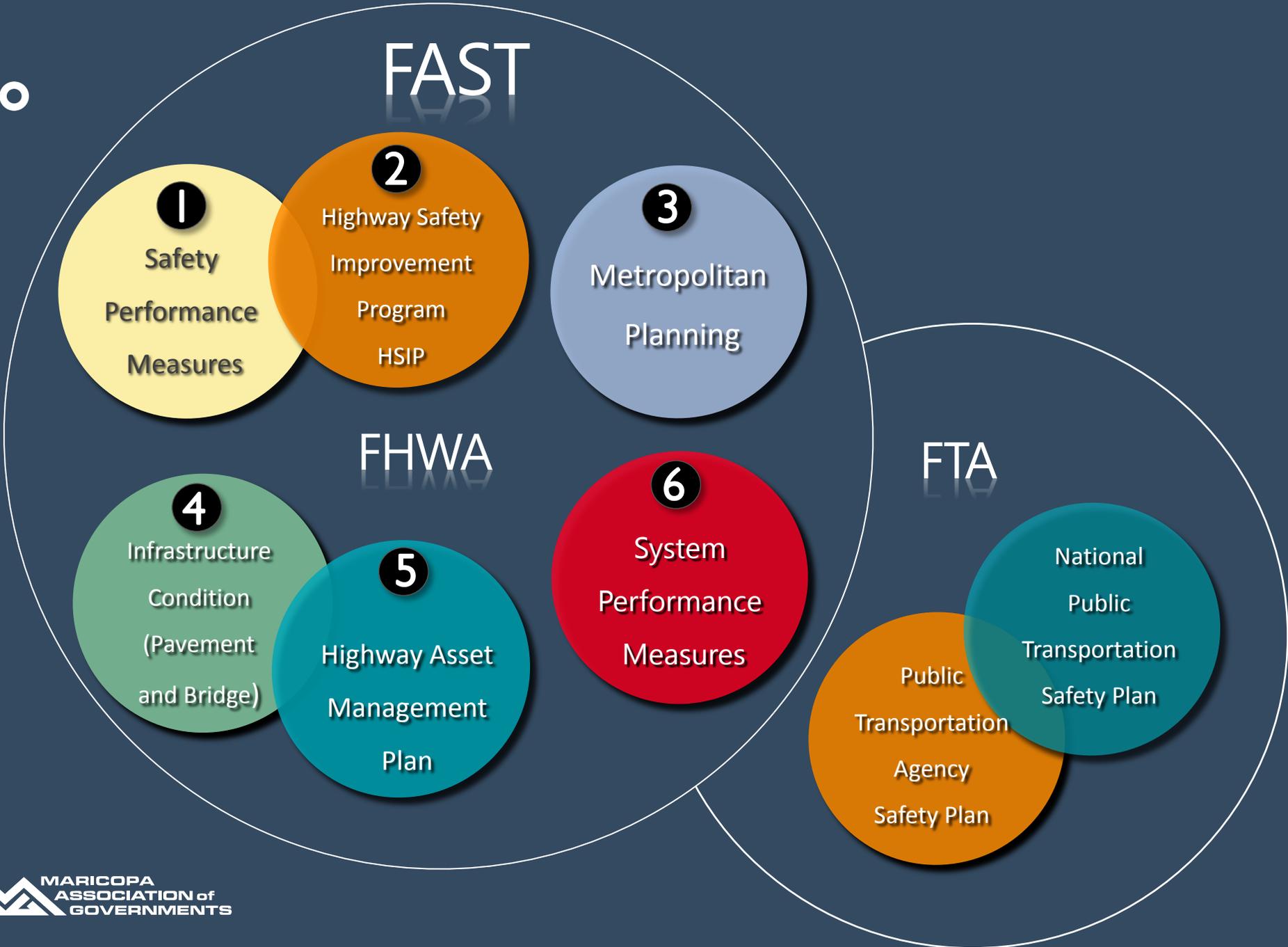
1.

Federal Update

Performance Areas	NPRM	Comments Due	Anticipated Final Rule
Safety Performance Measures	March 11, 2014	Closed June 30, 2014	Published
Highway Safety Improvement Program	March 28, 2014	Closed June 30, 2014	Published
Statewide and Metro Planning; Non-Metro Planning	June 2, 2014	Closed October 2, 2014	July 2016
Pavement and Bridge Performance Measures	January 5, 2015	Closed May 8, 2015	September 2016
Highway Asset Management Plan	February 20, 2015	Closed May 29, 2015	September 2016
System Performance Measures	<i>Projected</i> April 2016	120 days	n/a



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Performance Measures and Targets Advisory Group



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

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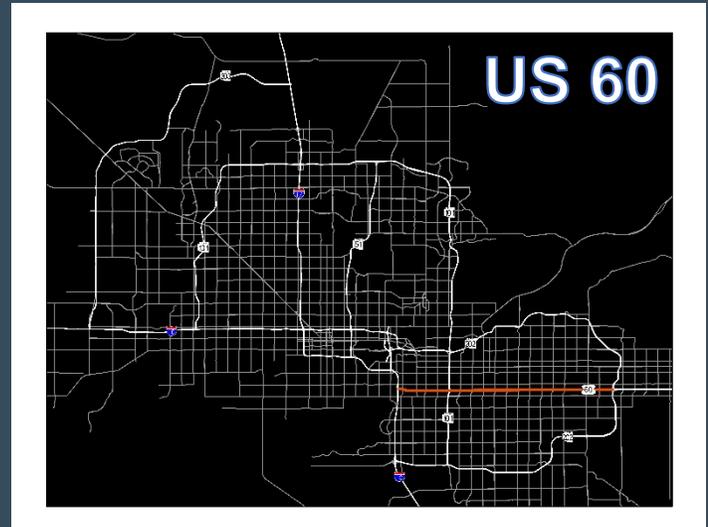
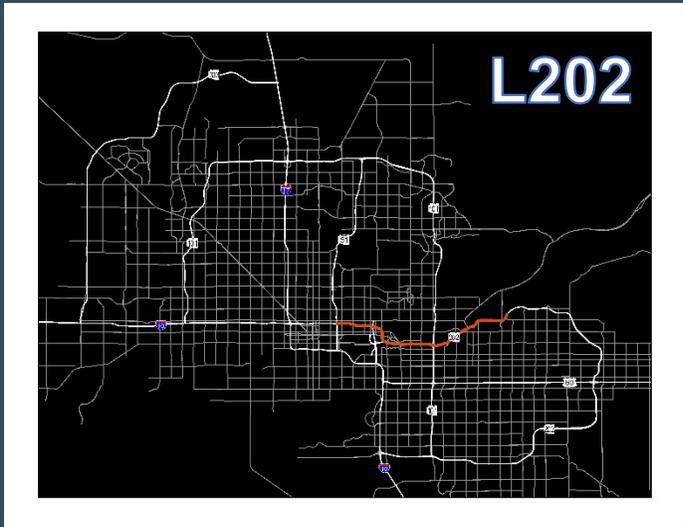
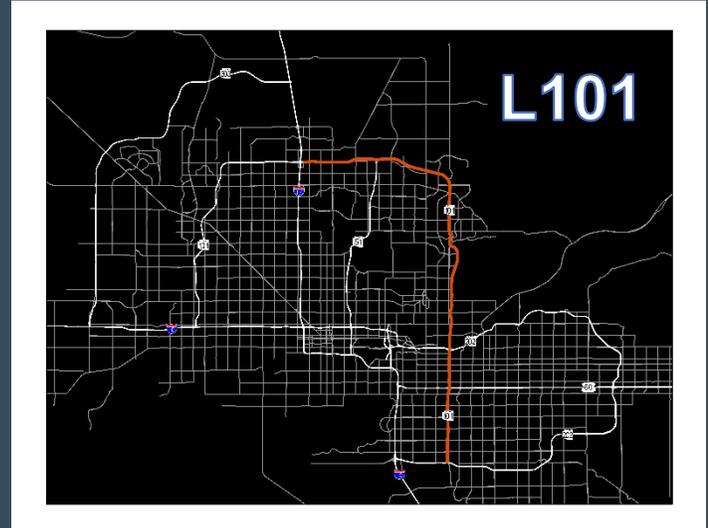
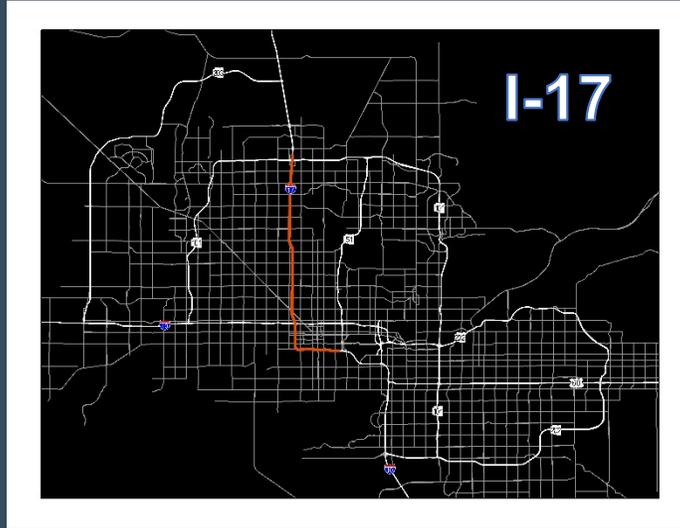
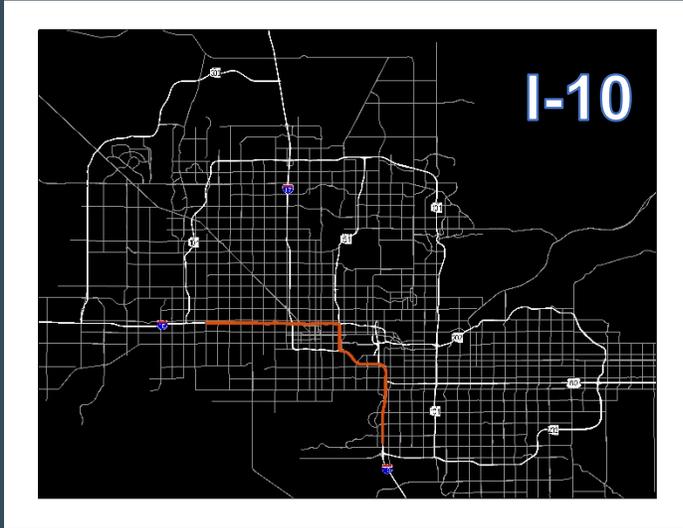
Why Targets?

- Well-defined and well-communicated targets provide transparency and clarity to the resource allocation decision-making process
- Targets provide the critical context for evaluating the effectiveness of investment decisions

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Facilities - Freeways



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Facilities – Arterials



Bell Rd.



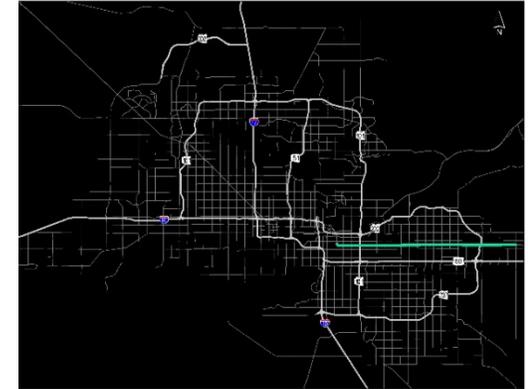
Baseline Rd.



Country Club Dr.



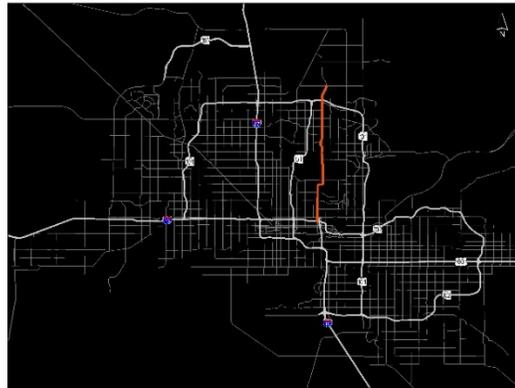
Apache Blvd. / Main St.



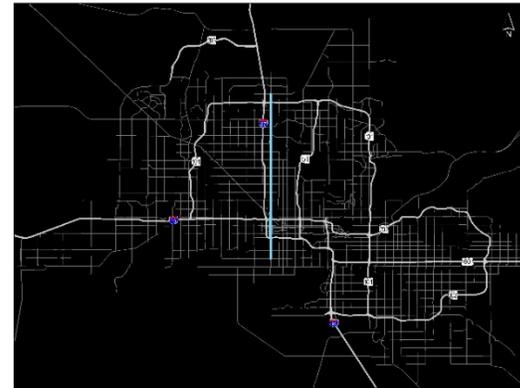
59th Ave.



44th. St. / Tatum Blvd.



19th. Ave.



7th St.



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Types of Targets



- 1 Aspirational – not based on trends or technical data
 - 2 Based on Projections – straight line
 - 3 Based on indexes
-
- A Fixed number fixed date
 - B Range
 - C Direction
 - D Progress towards goals

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%

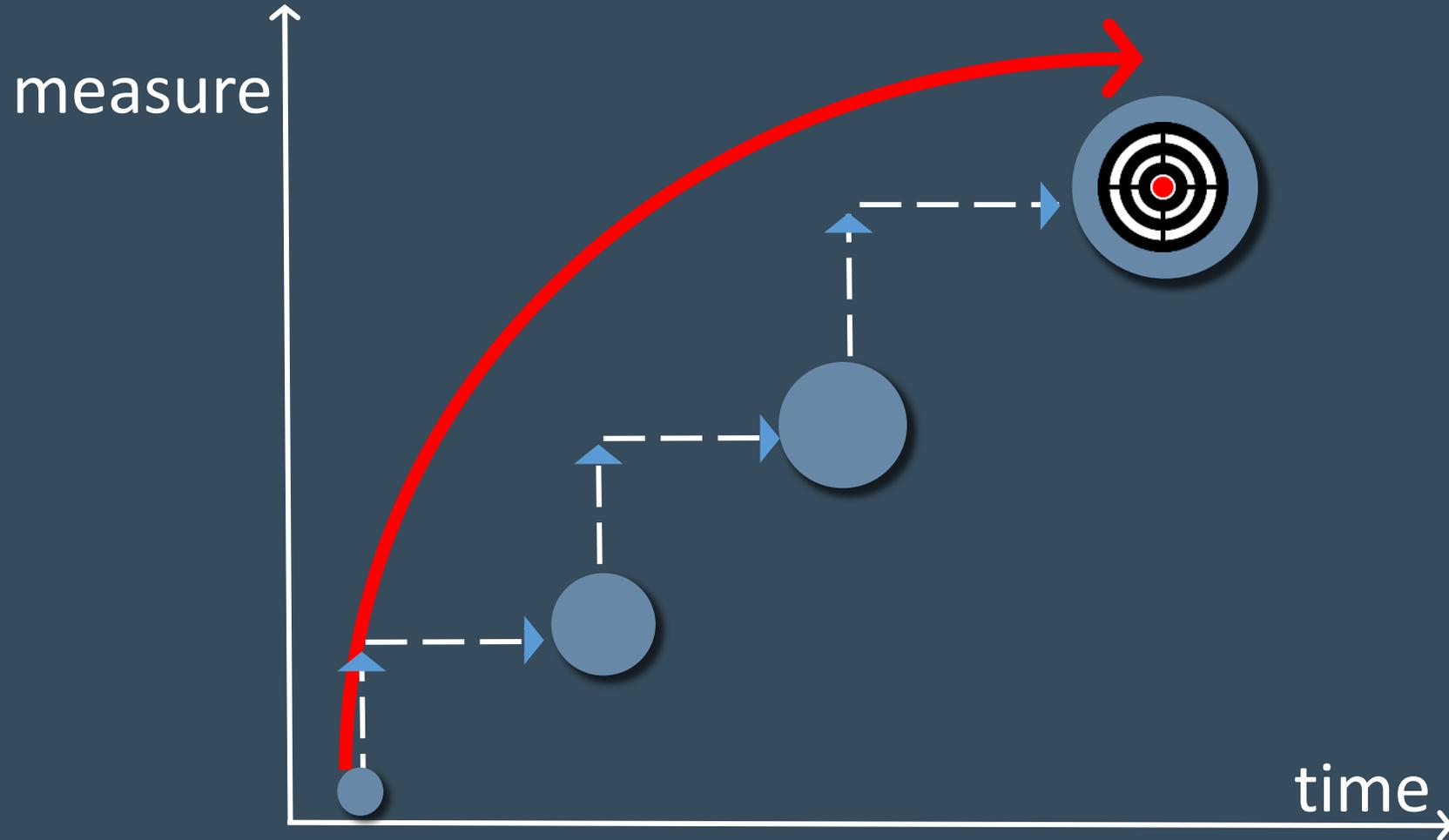
Source: MAG Travel Demand Model (20150424.10.11.15.TC6Conformity); Maricopa County portion of the modeling area

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

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Methodology

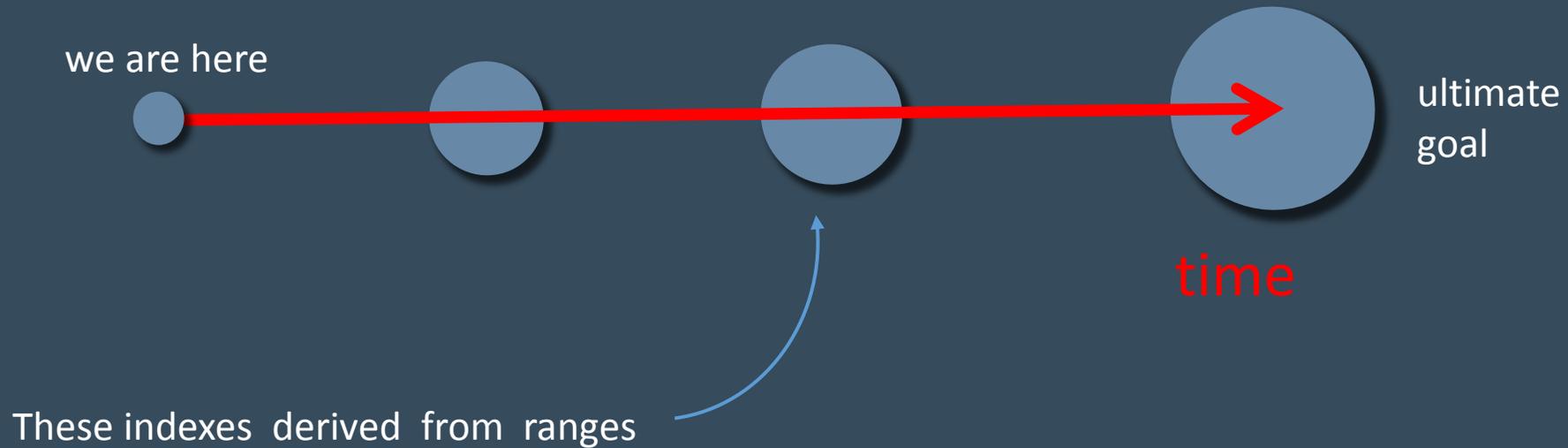


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Methodology

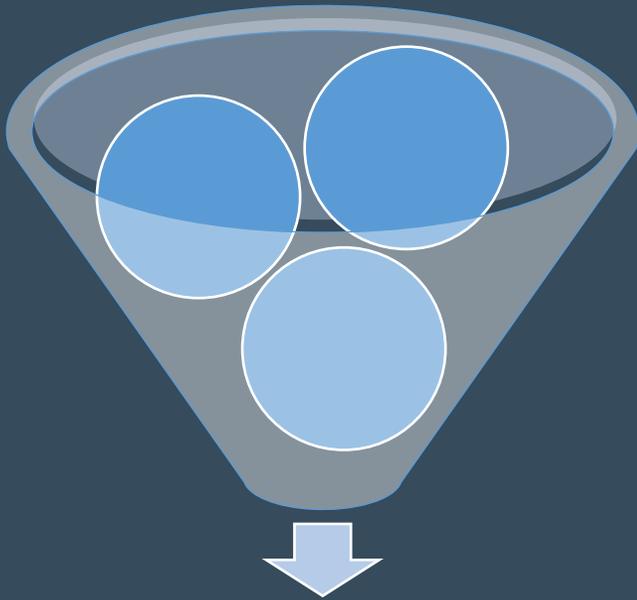
- Travel Time Index
- Reliability – Planning Time Index
- Delay
- Extent of congestion



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Reporting
Performance

Data Sources

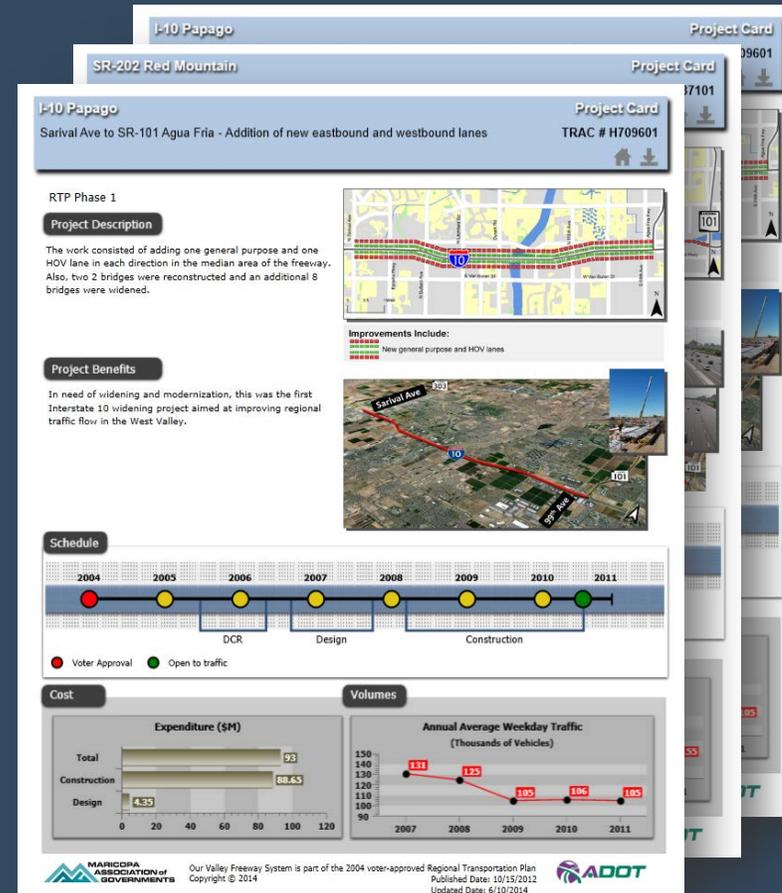
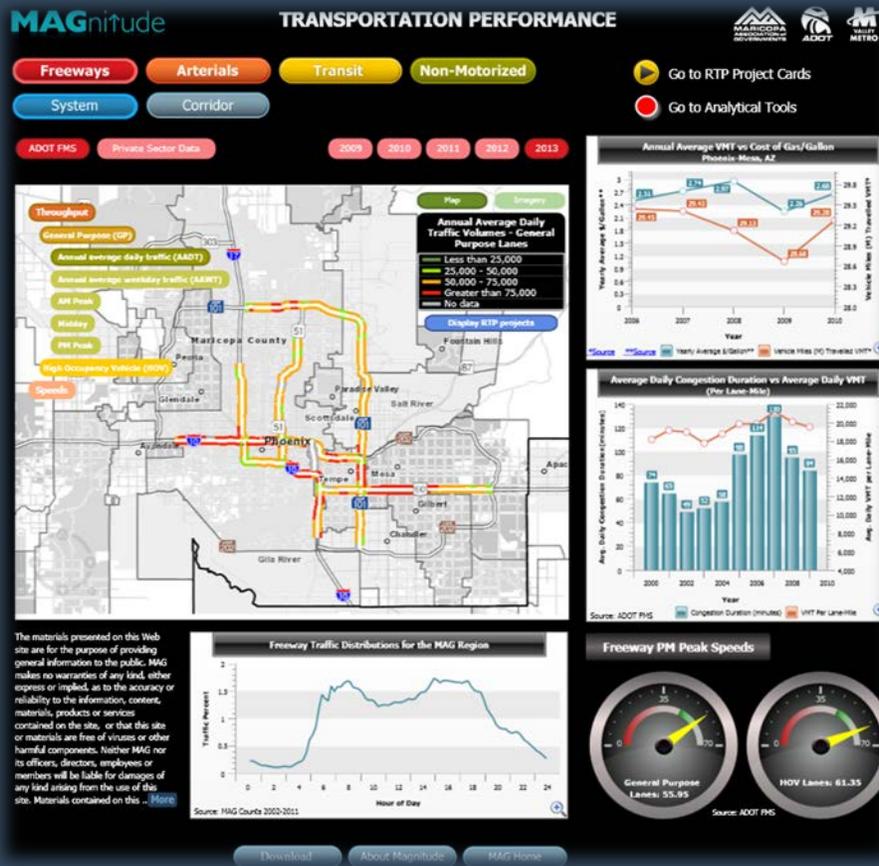


- ADOT Freeway Management System
- Third Party (HERE) Speed Data – Average Monthly
- NPMRDS (FHWA) Speed Data – Daily on NHS
- MAG Travel Demand Model

Performance Dashboard and RTP Cards

<http://performance.azmag.gov>

<http://projectcards.azmag.gov>



○ Planning and Programming Applications

ON THE MOVE
PARTNERS IN PROGRESS

2035 REGIONAL
TRANSPORTATION
PLAN (RTP)

JANUARY 2014

REGIONAL
TRANSPORTATION
PLAN

MARICOPA
ASSOCIATION of
GOVERNMENTS

ON THE MOVE
PARTNERS IN PROGRESS

FY 2014-2018
TRANSPORTATION
IMPROVEMENT
PROGRAM (TIP)

January, 2014

REGIONAL
TRANSPORTATION
PLAN

MARICOPA
ASSOCIATION of
GOVERNMENTS

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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