

November 7, 2016

Ms. Cathy Brady  
Sjoberg Evashenk Consulting  
455 Capitol Mall, Suite 700  
Sacramento, CA 98514

Dear Ms. Brady:

The Maricopa Association of Governments (MAG) has completed its review of the final draft report of the 2016 Regional Transportation Plan Performance Audit received November 4, 2016. This response includes comments to four recommendations which apply uniquely to MAG or apply to MAG and partner agencies.

MAG appreciates the auditor's efforts to constructively comment on the performance of the Regional Transportation Plan (RTP) and offers the response to the general findings of the audit in Appendix A and specific responses to audit recommendations as follows:

**Recommendation #1:** MAG should work with ADOT and the local jurisdictions to enhance freeway and arterial project cards by including baseline budgets and baseline schedules to allow comparisons against actual.

The finding is agreed to and the audit recommendation will be implemented. MAG already has initiated work toward implementation of this recommendation. It is anticipated that the enhanced RTP Project Cards for the Freeway and Arterial Life Cycle Programs will be published online on MAG's website during the month of December 2016.

**Recommendation #3:** Valley Metro and MAG should work together to make available transit project scorecards on MAG's website, so performance data can be more centrally accessible and transparent to the Prop 400 voters.

The finding is agreed to and a different method of dealing with the finding will be implemented. MAG will continue to reserve web space and resources in order to co-locate multimodal performance information. Currently, Valley Metro's performance reports are linked to the MAG Performance Dashboard (MAGnitude) website.

**Recommendation #4:** RTP partners should fully employ best practices and establish performance targets for key indicators for freeway, arterial streets, and transit performance.

The finding is agreed to and a different method of dealing with the finding will be implemented. MAG already has employed best practices and developed proposed targets for the regional freeway and arterial systems pursuant to the process required by the Federal Highway Administration (FHWA) Metropolitan Planning Rules and System Congestion Notice of Proposed Rulemaking. MAG has completed its component of the target setting process and is currently anticipating coordination sessions with the Arizona Department of Transportation (ADOT) in order to move forward with the final component of regional target determination. Per Federal Transit Administration (FTA) rules, transit performance targets are required to be set by regional transit agencies and operators.

Recommendation #11: MAG should work with the local jurisdictions to gather and make available local performance indicators related to pavement and bridge condition at the Maricopa County or Phoenix-Mesa Urbanized Area level on MAG's website, so performance data can be more centrally accessible and transparent to the Prop 400 voters.

The finding is agreed to and a different method of dealing with the finding will be implemented. Per federal legislation, state departments of transportation are responsible for monitoring and reporting on metrics, measures and targets included in the Asset Management Rule and Pavement and Bridge Condition Rule. The recommendation states that these indicators need to be made available on MAG's website which can be implemented fully when data collection efforts can ensure consistency and completeness.

MAG again thanks you and your audit team for your efforts and recommendations on how MAG, along with our RTP Partners, can improve the delivery of the Proposition 400 program and improve the regional transportation system; we believe the audit recommendations are a positive step toward improving transportation in the region.

If you have any questions, please contact me or Eric Anderson, MAG Transportation Director, at the MAG Office.

Sincerely,

Dennis Smith  
Executive Director

cc: Eric J. Anderson

## APPENDIX A

### MAG General Comments

#### A. Report page 2

*"While methodologies and preliminary targets have been created, no formal or official performance targets have been established as suggested by best practices. Consequently, it is not possible at this point to determine whether actual performance met expectations for the region and whether the mix of transportation and transit strategies is accomplishing RTP performance goals".*

And

#### B. Report page 3

*"RTP partners should fully employ best practices and establish performance targets for key indicators for freeway, arterial streets, and transit performance".*

### MAG Response

Statewide and metropolitan transportation planning processes are governed by federal law. Pursuant to federal rulemaking, within one year of the effective date of the rules, State departments of transportation (DOTs) are required to establish two-year and four-year targets. One hundred and eighty days after the DOT establishes targets, Municipal Planning Organizations (MPOs) are required to establish targets by agreeing to support the statewide targets or establishing their own. To date, numerous peer agencies have revisited existing target setting methodologies and reconsidered adopted regional targets in light of new federal rules.

Notwithstanding, draft targets have been developed by MAG for the System Congestion, Freight, and Congestion Mitigation and Air Quality (CMAQ) Notice of Proposed Rulemaking (NPRM) in collaboration with member jurisdictions and the local FHWA office. Complete information detailing the process and methodology followed to establish proposed targets per federal rules was shared with the auditor's team on May 17, 2016. MAG is looking forward to the coordination of target setting with the Arizona Department of Transportation (ADOT) before targets are finalized,

#### C. Report Page 3

*"Significant investment has been made in intelligent transportation system technology and the management and use of that technology, but regional operational coordination is still in progress; and*

*Some active traffic management tools, such as traffic signal synchronization and transit signal priority, are in place to enhance mobility. However, the region is still moving toward more active real-time monitoring and dynamic, proactive adjustment of the system to meet traffic conditions on a 24-hour a day basis”.*

#### MAG Response

Traffic signal systems and related operations at RTP partner agencies rely heavily on vehicle detectors and the communications infrastructure being functional. When either of these components fail, the system fails and RTP partner agencies hear directly from citizens in the form of complaints. All RTP partners already recognize the need to ensure a high degree of reliability for these components as important agency goals. However, many RTP partners have expressed difficulty in obtaining adequate local funds to reach this goal. The RTP does not provide any funds to RTP partners for the maintenance of either vehicle detection devices or communications infrastructure, both of which are critical for the operation of traffic control systems.

#### D. Report page 4

*“MAG should work with the local jurisdictions to gather and make available local performance indicators related to pavement and bridge deck condition at the Maricopa County or Phoenix-Mesa Urbanized Area level on MAG’s website, so performance data can be more centrally accessible and transparent to the Prop 400 voters”.*

#### MAG Response

As part of its responsibility to provide the Federal Highway Administration with critical information, ADOT develops and maintains the Highway Performance Management System (HPMS) for Arizona. HPMS, which includes statistics for the Phoenix-Mesa Urbanized area, is a spatial database that houses key pavement information on all roadways in the State that are functionally classified as major collector or above. Once HPMS data is made available by ADOT, MAG will post this content on the Transportation section of the MAG website.

Additionally, MAG member agency bridges and bridges on the State Highway System are included in the National Bridge Inventory (NBI). On an annual basis, MAG publishes a listing of member agency bridge data from the NBI in its MAG Transportation Programming Guidebook, which is available on the MAG website.

#### E. Report page 5

*“.....However, in another national comparison\*, Phoenix trends are worsening indicating that congestion may be a significant challenge for the region moving forward”.*

*\*2015 United States Department of Transportation Federal Highway Administration Urban Congestion Report.*

## MAG Response

The Urban Congestion Report (UCR) measure equivalent to the congestion hours of delay is based on two-way Annual Average Daily volumes reported on the HPMS database. These volumes are partially based on observed data; the majority of the volumes in the HPMS formulas are estimated, which has to be considered when using it in comparison with other congestion measures. Additionally, the UCR bases their analysis on speed data from the NPMRDS (National Performance Management Research Data Set) reporting only on the NHS (National Highway System), which only includes 40 percent of the arterial network in the MAG region. Taking into account traffic count sampling error and variation in traffic estimation, data collection and the size of NHS networks among urban areas, direct comparisons among urban areas using the UCR congestion measures is questionable. [http://www.ops.fhwa.dot.gov/perf\\_measurement/ucr/](http://www.ops.fhwa.dot.gov/perf_measurement/ucr/)

## F. Report page 11

*"....Yet, aligned with best practices, several transportation entities in the country already use targets to measure performance related to crash, speed, ride quality, and congestion goals".*

Agencies in the U.S. that have developed targets are largely DOT's, which are agencies that implement projects and are in control of and responsible for delivering new construction, modernization and preservation projects.

MPOs that have established targets typically have jurisdiction over land use planning and in some cases operation of transit services.

Furthermore, to date, numerous peer agencies have revisited existing target setting methodologies and reconsidered adopted regional targets in light of new federal rules.

## G. Report page 17

*"We found examples in the nation where other transportation entities regularly reported performance targets as shown in the sections that follow".*

## MAG Response

The examples cited belong to entities that are not MAG peers. They are either:

- A consortium of an MPO and a Transit providing agency with a completely different legal structure, jurisdiction and mandate, or a State DOT.
- An MPO with Land-Use jurisdiction.

H. Report page 36

*"Impact of Individual RTP Projects on Travel Time is Difficult to Evaluate without Targets"*

MAG Response

Measuring project level performance as it relates to overall system performance has to recognize that often the performance analysis of a single project may significantly over- or underestimate the project's contribution to system performance. For example, a project to add high-occupancy vehicle (HOV) lanes on one section of freeway may appear to perform poorly when analyzed in isolation with the overall system, when in fact the single project is part of a series of system improvements to build the HOV network. Measuring performance by quantifying results of individual highway and or arterial projects tends to render inconsistent and sometimes unexplainable results.

November 8, 2016

Ms. Catherine M. Brady, Director  
Sjoberg Evashenk Consulting, Inc.  
455 Capitol Mall, Suite 700  
Sacramento, CA 95814

Dear Ms. Brady:

ADOT has completed its review of the Revised Draft Report of the Performance Audit of the Maricopa County Regional Transportation Plan by Sjoberg Evashenk Consulting, Inc., dated October 28, 2016.

We have carefully reviewed all of the recommendations contained in the Revised Draft Report. We have included a response to each recommendation that is directed to the Arizona Department of Transportation.

#### **Chapter 1: Regional Efforts and Progress Since 2011 Audit**

**Recommendation #1:** MAG should work with ADOT and the local jurisdictions to enhance freeway and arterial project cards by including baseline budgets and baseline schedules to allow comparisons against actual.

**ADOT Response to Recommendation #1:** The finding is agreed to and the audit recommendation will be implemented.

ADOT will provide MAG with the baseline budget and baseline schedule information that is needed to enhance the Project Cards.

**Recommendation #4:** RTP partners should fully employ best practices and establish performance targets for key indicators for freeway, arterial streets, and transit performance.

**ADOT Response to Recommendation #4:** The finding is agreed to and the audit recommendation will be implemented.

ADOT started working with regional partners on establishing performance targets per USDOT Notice of Proposed Rulemaking. ADOT will continuously coordinate with MAG in setting performance targets for freeway as soon as USDOT issues publication of final rules.

**Recommendation #5:** ADOT should work with the Citizens Transportation Oversight Committee to ensure responsibilities, such as annual reporting, are fulfilled and methods of committee operations are changed to be more effective in meeting statutory requirements.

**ADOT Response to Recommendation #5:** The finding is agreed to and the audit recommendation will be implemented.

**Recommendation #6:** ADOT, as the Citizens Transportation Oversight Committee’s administrative support, should encourage the County Board of Supervisors and the Governor's Office to fill vacancies on the Citizens Transportation Oversight Committee and encourage the committee to meet on a regular basis as statutorily required.

**ADOT Response to Recommendation #6:** The finding is agreed to and a different method of dealing with the finding will be implemented.

ADOT will comply with the statutory requirements of ARS 28-6356 and will notify appointing bodies when vacancies occur.

## **Chapter 2: Freeway Performance**

**Recommendation #7:** ADOT should report freeway bridge and pavement condition data at the Maricopa County or Phoenix-Mesa Urbanized Area level, in addition to current statewide data already available.

**ADOT Response to Recommendation #7:** The finding is not agreed to, but the recommendation will be implemented.

There is no significant value in separating out Maricopa County from a system performance perspective. We will start separating out Urban vs. Rural.

**Recommendation #8:** ADOT should track and report internal project delivery performance metrics at the Maricopa County or Phoenix-Mesa Urbanized Area level.

**ADOT Response to Recommendation #8:** The finding is not agreed to and the recommendation will not be implemented.

There is no significant value in separating out Maricopa County from a system performance perspective.

**Recommendation #9:** ADOT should consider using additional project delivery metrics including "project administrative costs as a percent of budget."

**ADOT Response to Recommendation #9:** The finding is not agreed to, but the recommendation will be implemented.

Starting in FY17, ADOT will track Project Development Cost as a % of Construction Cost. Right-of-Way Acquisition will be either separated or included in the Construction Cost.

**Recommendation #10:** With many innovative project management practices employed on the South Mountain Freeway project, ADOT should consider applying techniques and tools from this project to other ADOT freeway projects, as appropriate.



**ADOT Response to Recommendation #10:** The finding is agreed to and the audit recommendation will be implemented.

Best practices will be implemented on other projects as applicable.

#### **Chapter 5: Multimodal Systems Management and Operations**

**Recommendation #12:** ADOT should continue its efforts currently underway to scientifically explore, evaluate, and implement active traffic management techniques where practical or feasible, including continued efforts to work with RTP partners on considering and prioritizing the maintenance of the communication infrastructure to remain functional and current.

**ADOT Response to Recommendation #12:** The finding is agreed to and the audit recommendation will be implemented.

ADOT will continue its efforts currently underway to scientifically explore, evaluate, and implement active traffic management techniques where practical or feasible, including continued efforts to work with RTP partners on considering and prioritizing the maintenance of the communication infrastructure to remain functional and current.

The audit team from Sjoberg Evashenk Consulting, Inc. and the Auditor General's staffs has been very accommodating during the course of the audit and their diligence and expertise in assisting the Department throughout the auditing process are appreciated.

Sincerely,

John S. Halikowski  
Director

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November 1, 2016

Ms. Catherine Brady, Director  
Sjoberg Evashenk Consulting, Inc.  
455 Capitol Mall, Suite 700  
Sacramento, CA 98514

Subject: Response to revised draft Performance Audit Report

Dear Ms. Brady:

Valley Metro has completed its review of the revised draft Performance Audit Report dated October 28, 2016. Our responses are outlined below and on the subsequent pages for each audit recommendation. Please note our responses are contingent upon Valley Metro Board of Directors approval.

#### Recommendation Response

**Recommendation 2.** *Valley Metro should strengthen current capital construction project scorecards by including the initial baseline budget for the project as well as develop consistent project scorecard formats for all transit capital construction projects, regardless of whether Valley Metro oversees the project or a local jurisdiction is managing the project.*

**Response:** The finding is agreed to and the audit recommendation will be implemented. A procedure will be developed to establish when the baseline budget is determined depending on the type of project. The baseline budget for capital construction projects will be included in the project scorecards. Valley Metro will work with the jurisdictions to ensure a consistent project scorecard format is used.

**Recommendation 3.** *Valley Metro and MAG should work together to make available transit project scorecards on MAG's website, so performance data can be more centrally accessible and transparent to the Prop 400 voters.*

**Response:** The finding is agreed to and the audit recommendation will be implemented. Valley Metro transit project scorecards are currently linked to MAG's website. Valley Metro will work with the jurisdictions that sponsor transit projects to ensure they are also linked to MAG's website.

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**Recommendation 4.** *RTP partners should fully employ best practices and establish performance targets for key indicators for freeway, arterial streets, and transit performance.*

**Response:** The finding is agreed to and the audit recommendation will be implemented.

Valley Metro and its partner agencies have several system-wide performance targets incorporated into service provider contracts. These targets and the system's performance compared to them will be reported in the TPR going forward.

- On-time performance ( $\geq 92\%$ )
- Fare box recovery ( $\geq 25\%$ )
- Customer complaints ( $\leq 45$  per 100,000 revenue miles)
- Percentage of scheduled trips operated ( $\geq 99.95\%$ )

Beginning with the FY16 Report, the TPR will also include narrative describing what the performance and trend data indicate, which will assist taxpayers in understanding whether transit is achieving its stated goals for the region.

Thank you for allowing Valley Metro the opportunity to respond to the revised draft Performance Audit Report findings. If you have any questions, please don't hesitate to contact me at 602.495.8205.

Sincerely

Scott W. Smith  
Interim Chief Executive Officer

c: Document Control  
A. DeVore  
J. Farry  
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