

**Transportation Commission of Colorado
Transportation Asset Management Committee
Meeting Agenda
Wednesday, February 20, 2013
4201 East Arkansas Avenue**

**Scott Richrath, Branch Manager
Transportation Performance Branch**

**Les Gruen
District 9, Colorado Springs**

**Kathy Connell
District 6, Steamboat Springs**

**Heather Barry
District 4, Westminster**

**Tim Harris
Chief Engineer**

**Debra Perkins-Smith, Director
Division of Transportation
Development**

All commissioners are invited to attend this Committee meeting.

- 1. Report Out from Commissioner Gruen – 5 minutes**
- 2. Committee Feedback to Staff January Workshops – 40 minutes**

THE AGENDA MAY BE ALTERED AT THE CHAIR'S DISCRETION

MEMORANDUM

DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue
Denver, Colorado 80222



TO: Transportation Commission Asset Management Committee

FROM: Scott Richrath, Transportation Performance Branch Manager

SUBJECT: Results of Staff's January Asset Management Workshop and Recommendation for RAMP

DATE: February 20, 2013

Purpose

This memorandum summarizes the recommendations of two January 2013 staff workshop on Asset Management: (1) on January 2, staff built consensus on Fiscal Year (FY) 2014 funding for Asset Management from the Responsible Acceleration of Maintenance and Partnerships (RAMP); (2) on January 28, staff developed minor baseline budget modifications and justification.

Action Requested

Staff seeks Transportation Commission Asset Management Committee guidance on recommendations below. During today's meeting, staff will provide an overview of the Asset Management workshop held for CDOT staff on January 2, 2013. Staff will present eligibility criteria for FY2014 RAMP funding of Asset Management and provide FY2014 RAMP funding recommendations for eligible asset management programs at two RAMP funding levels. The actual funding level will be determined as RAMP activities develop, so staff seeks initial approval at the lower funding level with the ability to move to the higher funding level if and when additional RAMP dollars become available to asset management.

Actions on baseline budget modifications are reserved for a FY2014 Budget Development workshop before the entire Commission on February 21.

Background

The Committee has met regularly since its first meeting in September and has discussed the FY2014 budget that starts on July 1, 2013. On January 2, Director Hunt convened a 5-hour workshop of CDOT staff to review the projected performance and proposed FY2014 RAMP funding for several assets. Committee guidance and material presented to the Committee informed the staff workshop. Staff reviewed asset performance projected by the Multi-Asset Management System (MAMS) that analyzes pavement, bridge, maintenance, fleet and ITS.

The workshop focused on the new RAMP effort and the asset management portion of the Asset Management and Operational Improvements Fund. Attendees included Director Hunt and other members of senior management, regional transportation directors, asset managers and staff from the Division of Transportation Development and the Office of Financial Management and Budget. The group determined which asset programs are RAMP-eligible, and negotiated how much FY2014 RAMP funding those programs should receive.

Summary of Eligible Programs:

For an asset management program to be RAMP-eligible, it must:

1. Be able to demonstrate with a quantified performance measure the benefit of additional investment.
2. Have an existing asset management system that has, among other features, the ability to establish a performance target (e.g. maximize life cycle otherwise optimize performance) and at the same time minimize cost in achieving that performance target.
3. Distinguish between annual maintenance activities and capital preservation and replacement activities and fund only capital preservation and replacement. Crack filling and data gathering, for example, are not RAMP-eligible activity. Those should be addressed through the baseline budget setting process.
4. Be able to expend its RAMP funding by the December following the fiscal year of advancement. Fiscal Year 2014 RAMP must be spent by December 2014.

Asset Category	Asset Management System for FY 2014	Metric	RAMP Requirements / Future Asset Management System Enhancements
Surface Treatment	Deighton’s pavement mgmt system (dTIMS CT) since 1990s; MAMS 2012	% Good/Fair based on Remaining Service Life; will incorporate Drivability in FY 14/15	Adhere to Practical Design Guide, avoiding reconstruction and requiring thin treatments on low and very low volume roads, unless approved by Chief Engineer
Bridge	Pontis since 1990s; MAMS 2012	% Good/Fair based on Sufficiency Rating; preventative maintenance to extend RSL	Incorporate benefits of preventative maintenance into deterioration curves for FY 2015
Fleet	SAP since 2006; MAMS 2012	% useful life based on age (mfg spec) and actual use	Incorporate NPV into repair/replace decisions for FY 2015
ITS	SAP since 2006; MAMS 2012	% useful life based on age (mfg spec)	Incorporate criticality of asset groups into decisions; FY 2015 RAMP for capital replacement only, operations and maintenance must be funded within FY 2015 budget.
Rockfall Mitigation	Revised Rockfall Mitigation / Management Plan 2013	Blended score based on AADT, Vehicle Exposure Score, and Total Hazard Score	Complete implementation of new plan for FY2015
Buildings	SAP since 2006; MAMS FY 2014	A through F based on functionality and condition	Enhance office space assessment system; incorporate into MAMS Phase III for FY 2015
Tunnels	Pontis for structural evaluation of all on-system tunnels. EJT and HLT receive a 2 year inspection utilizing best practice guidelines.	Pontis since late 1990s for structural inspection. Replace or prolong the lifespan of equipment, or upgrade safety critical equipment necessary to the functioning of the tunnel as tracked through the MPET program and identified in current inspections.	Currently only EJMT, HLT, and WC are eligible; Tunnels Task Force and Staff Bridge will incorporate other tunnels into system for FY 2015

Asset Category	Asset Management System for FY 2014	Metric	RAMP Requirements / Future Asset Management System Enhancements
Culverts	Critical culverts program since 2003	242 culverts beyond useful life on Interstate & NHS. Critical culverts are prioritized through NBI item 62 (culvert condition). Reduce the number of critical culverts as identified through NBI item 64.	Build asset management system around current critical culverts program for FY 2015

Summary of Ineligible Programs:

Asset Category	Comments
MLOS – Roadway Surface	Coordinate with Surface Treatment in FY 2015; seek budget baseline adjustment to keep pace with inflation
MLOS – Traffic Services	Seek RAMP funding for capital maintenance items once Asset Management system is in place; consider RAMP-Op's for FY 2015; seek budget baseline adjustment to keep pace w/inflation
MLOS – Tunnels	Coordinate through Tunnels Task Force; seek budget baseline adjustment to keep pace with inflation
MLOS – Structures	Coordinate with Staff Bridge in FY 2015; seek budget baseline adjustment to keep pace with inflation
Walls	Seek RAMP funding once Asset Management system is in place

Summary of Delphi:

The group engaged in an activity – using the wideband Delphi method – that allowed each individual to allocate FY2014 RAMP funding among eligible assets. The Delphi method consists of a facilitator and participants working together through iterative rounds of discussion to come to consensus. The group completed two Delphi rounds at \$135 million (\$150 million less \$15 million off the top for either operations or risk-critical projects) and opted to forego a third round and move to the “Bonus Round” at \$160 million (\$175 million less \$15 million off the top for either operations or risk-critical projects).

Asset:	FY14 RAMP = \$135 Million			FY14 RAMP = \$160 Million		
	FY14 Budget	FY14 RAMP	FY14 Budget + RAMP	FY14 Budget	FY14 RAMP	FY14 Budget + RAMP
Surface Treatment	\$150.6	\$73.1	\$223.7	\$150.6	\$88.2	\$238.8
Structures						
Bridge & BE	\$140.6	\$29.0	\$169.6	\$140.6	\$33.3	\$173.9
Tunnels	\$0.0	\$6.6	\$6.6	\$0.0	\$7.4	\$7.4
Culverts	\$5.6	\$5.3	\$10.9	\$5.6	\$5.9	\$11.5
Walls	\$0.5 incl. in Brdg	\$0.0	\$0.0	\$0.5 incl. in Brdg	\$0.0	\$0.0
MLOS	\$249.0	\$0.0	\$249.0	\$249.0	\$0.0	\$249.0
Fleet	\$14.1	\$5.6	\$19.7	\$14.1	\$6.8	\$20.9
ITS (excludes new capital)	\$11.2	\$8.7	\$19.9	\$11.2	\$10.3	\$21.5
Rockfall	\$5.2	\$3.0	\$8.2	\$5.2	\$3.8	\$9.0
Buildings	\$6.9	\$3.8	\$10.7	\$6.9	\$4.4	\$11.3
Total	\$583.2	\$135.0	\$718.2	\$583.2	\$159.9	\$743.1

Revised FY14 Baseline Budget:

Tim Harris led a staff discussion on January 28th that resulted in two baseline adjustments:

- 1) Shift \$1.8 million from Bridge to ITS recognizing that as ITS capital costs increase, the maintenance budget for ITS must increase as well, and
- 2) Shift \$7.2 million from Surface Treatment to MLOS acknowledging that MLOS has not received an increase in a few years despite rising inflation costs and that the Surface Treatment program will receive some benefit from increased MLOS investment.

Quantifying Asset Management Benefits of FY 2014 RAMP Investment:

Because program eligibility criterion #2 requires an existing asset management system, staff will demonstrate to the Committee the impact of RAMP investment. For Surface Treatment, Bridge, Fleet, and ITS, those benefits will be quantified using the Multi-Asset Management System graphs, similar to those that have been presented in prior Committee meetings. Staff will present budget scenarios that assume RAMP-level funding is sustained for five years. Staff will also present budget scenarios that assume RAMP-level funding is sustained for twenty years, using TRANS bond debt retirement after year five. For Rockfall, Buildings, Tunnels, and Culverts, those benefits will most likely be quantified by demonstrating what asset preservation can be accomplished with baseline funding and what can be accomplished with RAMP funding for FY 2014.

MAP-21:

FHWA is in the rulemaking process to establish regulations for MAP-21, which requires states to have a Risk-Based Asset Management plan. While MAP-21 was specific in setting a national goal for bridge condition, it did not set a national target for pavement condition. This is a good thing for Colorado as described below.

The proposed measure in this rulemaking is the International Roughness Index (IRI) which all states have the ability to collect, but which they do not currently collect in the same manner. Because the lack of consistency between states, if a hard national standard were established, Colorado and many other states would have to change their longstanding practices for measuring pavement condition. This would also make historical comparisons between old and new data very difficult, if not impossible. Since IRI is not the only measure CDOT uses in the pavement management system and subsequently to select projects, not setting a national target allows CDOT much more flexibility. Without a hard national target, CDOT's Asset Management plan can be structured to fit with the Pavement Management System, an appropriate target (whether using IRI or something else) can be set using Colorado methodologies and the Colorado Division can support that direction.

MEMORANDUM

January 15, 2013

TO: Scott Richrath

FROM: Les Gruen

RE: **Results of Staff's January Asset Management Workshop and Recommendation for RAMP**

Thank you for forwarding a draft memorandum on the above referenced subject. I have reviewed this memo, concur with staff recommendations and encourage a presentation of this material to my Transportation Commission colleagues with the expectation of receiving an endorsement by the entire Commission. Please include this memorandum as a cover to whatever you ultimately distribute to the Transportation Commission.

By way of background, an Asset Management Committee was established in late August 2012 at the behest of incoming Transportation Commission Chairman Gary Reiff. The Committee's mandate was to assist in developing processes or mechanisms that would allow us to more effectively allocate scarce resources and manage our wide-ranging assets.

The work that you and your team have undertaken over a very short period of time will permit us to achieve our objective. Your efforts, and those of your colleagues, have been essential and deserve thanks.

Don Hunt also deserves recognition for providing guidance and serving as chief cheerleader in the significant efforts you have spearheaded. It was not surprising to learn that Laurie Freedle of OFMB has made substantive contributions in this effort, as well.

JoAnn Mattson has been a valued lieutenant since the beginning of this campaign and Deb Perkins-Smith and Tim Harris provided important assistance throughout. Other major contributors in this endeavor include:

William Johnson and Lou Henefeld of DTD, Josh Laipply (assisted by Cole Richards and Mark Nord) of Staff Bridge which deserves special recognition for its efforts in moving forward the management of all CDOT structures, Bill Schiebel (assisted by Ty Ortiz, Stephen Henry, and Eric Chavez) of Pavement Management and Rockfall, Dave Wieder (assisted by Roy Smith, Karen Neuschwanger, and David Fox) of Maintenance, Fleet, and Property Management, Dave Eller and Mike Goolsby of Region 3 and Mike McVaugh of Region 5, representing RTDs, Tunnels, Traffic, and Maintenance, and finally Ken DePinto (assisted by Rich Sembrat) of ITS.

I know that certain people are going to be unintentionally omitted. Each of you that have been involved in this effort deserves special thanks. You can be confident and should be proud that your work has been not only appreciated, but that your recommendations are likely to be implemented. The results will have a far-reaching impact on the way CDOT does business for years to come.