

# STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION



**DATE:** February 20, 2014  
**TO:** Transportation Commission  
**FROM:** Scott Richrath, Chief Financial Officer  
Scott McDaniel, Acting Chief Engineer  
**SUBJECT:** Program Management and Cash Management Update

## Purpose

This workshop and memorandum provide an update to the Commission (1) overview of our continuing implementation of program management, (2) an update on the cash management as-is report, (3) a program update for selected programs.

## Action Requested

The items presented here are for Transportation Commission information and comment.

## Executive Summary

- (1) As part of our implementation of Program Management and Cash Management, an internal staff workshop was held to educate affected staff on the important changes that will be part of this effort. This workshop with the Commission will give an overview of that program and an update on our implementation.
- (2) In December, the Commission received a copy of the As-Is report documenting organization, processes and systems used in project delivery (an as-is of program management). The As-Is report for cash management is being published this month. A summary of this 79-page report is attached to this memorandum. Staff will provide a summary here in the workshop.
- (3) A program update on selected programs will be provided. A program update for planned advertisement of RAMP Partnership and Operations is provided. A fiscal update for the 2014 Asset Management program as a whole and the 2014 surface treatment projects as a group is provided. Also included is the planned and actual advertisement status for the 2014 surface treatment projects.

## Background

CDOT has an ongoing initiative to implement portfolio, cash and program management. This effort includes two major elements. Long-term changes to the organization, processes and systems used to develop and manage projects are being identified and implemented through an ongoing effort. Short-term actions are being implemented to employ cash management and program management techniques and ensure delivery of CDOT's entire program, including the increase from our RAMP funding.

## Details

*Program Management and Cash Management Implementation Update*

*"Taking Care To Get You There"*

A staff-level workshop was held on January 28 to inform employees directly affected by the implementation of cash management about the relevance and importance of the program. There are additional efforts planned for the staff-level implementation that are outlined in the presentation.

#### *Cash Management “As-Is” Findings*

These are the summary findings of AECOM and Dye Management Group Inc. with respect to CDOT’s cash management practices, as they existed in September 2013. These are further detailed in the attached three page summary document.

CDOT’s processes for allocating and allotting funds to projects were effective in fulfilling the purpose for which they were designed: containing project expenditures such that the risk of overspending an appropriation was reduced to zero. CDOT made fiscal conservatism its paramount priority and allowed project development to be slowed by tight budget controls. CDOT’s budget process exceeds federal and state requirements at almost every step but most significantly with respect to the statewide transportation improvement program (STIP). The STIP is a programming document and the federal regulations that govern it do not impose much on the allocation or allotment of funds. CDOT, however, uses the STIP as its principal tool for allocating and allotting funds to projects.

Cash-based budgeting is fundamentally different from obligation-based budgeting (some CDOT staff call these “budget-based budgeting” and “expenditure-based budgeting”, respectively). In obligation-based budgeting, projects follow the money; in cash-based budgeting, money follows the projects. CDOT’s budgeting and programming practices will have to change substantially away from the old mission of eliminating risks and towards a new mission of managing risks.

CDOT can make these changes and still comply with existing state and federal laws. They also fall within the possibilities that the Federal Highway Administration (FHWA) will accommodate. That is not to say that there are no changes in legislation that would extend CDOT’s ability to accelerate projects. For example, Colorado is one of the few states that has not enacted a special fund for highway construction in which the appropriations are the deposits of revenues into the fund and not the disbursement of funds out of it. Other states combine such special accounts with a legislated limit on encumbrances in the special account, up to a limit of three years of revenue, to accomplish projects more quickly.

With respect to its organization and its information systems, the financial side of CDOT is ready to take on the challenges of cash management. CDOT has a staff of knowledgeable and competent financial officers who, by and large, have embraced the change in their mission that cash management entails. CDOT has struck a good balance in the organization of its financial officers, with decision-making with respect to project allocations and allotments made in the regions and the results of those decisions vetted and policed by a central budget staff. SAP is a good system for financial management and CDOT need not walk away from it as the department converts to cash-based financial management.

### *Program Management Update*

These updates are included in the attached PowerPoint presentation. This month's presentation focuses on planned advertisement of RAMP projects and also on the 2014 Surface Treatment project list. As the program management collection of planned dates continues, we will rotate focus areas to keep the Commission informed.

The 2014 Surface Treatment projects are included in February 2014 Budget Supplement presented for Transportation Commission approval in this month's meeting.

Staff proposes that substantive project changes could be discussed during a monthly Program Management workshop as this will reduce the time required for project review during the formal Budget Supplement agenda item.

### Next Steps

CDOT staff will continue to make regular Program Management updates through workshops on the Commission agenda. These workshops will be jointly presented by the Chief Financial Officer and the Chief Engineer since the agency is adopting project delivery and financing methods that integrate cash management and program management.

### Attachments

- (1) CASH Management As-Is report
- (2) Program Management Update PowerPoint

## Cash Management “As Is” Findings



This note provides a summary of the AECOM’s findings with respect to cash management business processes and systems as they were practiced in the Colorado Department of Transportation (CDOT) up to October 2013 (“as-is”), when CDOT made interim changes to those processes. This note also provides an outline of how AECOM will form its recommendations for the improvement of those processes and systems into a state better suited to the acceleration of projects (“to-be”).

We found that CDOT’s processes for allocating and allotting funds to projects were effective in fulfilling the purpose for which they were designed: containing project expenditures such that the risk of overspending an appropriation was reduced to zero. CDOT has made fiscal conservatism its paramount priority and has allowed project development to be slowed by tight budget controls. Its conservative budget processes are administered by competent financial staff and anchored in a robust SAP financial management information system. Indeed, a \$1 billion cash balance in the State Highway Fund is a symptom of their success of their mission as they understood it: to ensure that CDOT never over-spent an appropriation and always complied with federal and state programming and budgeting requirements. Other state departments of transportation have a creative tension between project managers, as they move their resources from one project to another to develop as many projects as possible, and financial managers, as they try to limit risks and uncertainties caused by those movements. In CDOT, the financial managers subjugated the project managers to the objective of eliminating over-spending risks when they implemented the SAP financial management information system.

CDOT’s budget process exceeds federal and state requirements at almost every step but most significantly with respect to the statewide transportation improvement program (STIP). The STIP is a programming document and the federal regulations that govern it do not impose much on the allocation or allotment of funds. CDOT, however, uses the STIP as its principal tool for allocating and allotting funds to projects. This combines programming with budgeting in an effort to demonstrate that the STIP is financially constrained and that planning partners are adequately consulted. In both respects, the effort is excessive. This is not to finger the integration of the STIP and the budget as a culprit; to the contrary, it was a useful feature of a conservative and obligation-based budget process.

Our specific findings in support of these conclusions are:

- a. CDOT has ceded some of its authority over programming projects to its planning partners and its authority to approve projects to the transportation commission.
- b. Annual limits on allotments to projects slow the development of projects once they are in development. With minimal risk, CDOT could ensure that total expenditures in a year do not exceed total allotments in a year without imposing annual control totals on allotments to projects in development.
- c. The budget process encourages the hoarding of allotments in projects. CDOT project managers are reluctant to give up funds that they believe they may no longer need because of three concerns, real or perceived: [1] Their projects must compete against other projects to reclaim those funds if their estimates of project costs subsequently increase. [2] They are censured for being over budget but not under budget; and [3] The time required for budget transactions. CDOT’s ability to re-allot funds, temporarily or

## Cash Management “As Is” Findings



permanently, rests on its ability to know when on the current allotments to projects are no longer needed, temporarily or permanently, by those projects. To the extent that CDOT staff cannot find and un-encumber the unused funds that comprise the current cash balance, they will not be able to maintain even an incremental encumbrance budget.

These processes will have to change if CDOT is to meet its project delivery goals for its baseline programs, RAMP and flood response.

Cash-based budgeting is fundamentally different from obligation-based budgeting (some CDOT staff call these “budget-based budgeting” and “expenditure-based budgeting”, respectively). The object of cash-based budgeting is not to contain projects such that the risk of over-spending is eliminated; it is to contain the risk of over-spending such that projects can be advanced. In obligation-based budgeting, projects follow the money; in cash-based budgeting, money follows the projects. CDOT’s budgeting and programming practices will have to change substantially, away from the old mission of eliminating risks and towards a new mission of managing risks.

Other deficiencies aside from CDOT’s inflexible budget process will have to be improved upon:

- d. There is no systematic way for the Office of Financial Management and Budget (OFMB) to pick up and track projects in their nascent stages upstream of the STIP. OFMB is over-reliant on the long-range transportation plan (LRTP) and STIP processes to identify and track nascent projects. Projects coming into development outside of those processes are not well-known to OFMB until they are entered into the STIP. As a result, the budgeting of such projects takes longer than it should. The RAMP partnership projects are demonstrating this problem.
- e. The current procedures for forecasting project schedules and costs are not good enough to support cash management.
- f. The revenue forecasts that underlie CDOT’s budget are too conservative. State revenues are estimated to a maximum likelihood value, with a 50% chance of being too high and a 50% chance of being too low. This doesn’t align with asymmetric nature of state allotment control, in which CDOT can under-allot funds but cannot over-allot funds.

With respect to its organization and its information systems, the financial side of CDOT is ready to take on the challenges of cash management. CDOT has a staff of knowledgeable and competent financial officers who, by and large, have embraced the change in their mission that cash management entails. CDOT has struck a good balance in the organization of its financial officers, with decision-making with respect to project allocations and allotments made in the regions and the results of those decisions vetted and policed by a central budget staff. SAP is a good system for financial management and CDOT need not walk away from it as the department converts to cash-based financial management.

It will take CDOT’s financial staff about two years to properly and fully adapt to cash management. Our current forecast of CDOT’s cash flows, which take the RAMP program and flood recovery into account, shows cash balances falling to levels that will require close cash management as early as the summer of 2016, so CDOT senior management will be making cash-constrained decisions on project letting as early as the autumn of 2015. CDOT’s financial staff can be ready to support that decision-making process by then.

## Cash Management “As Is” Findings



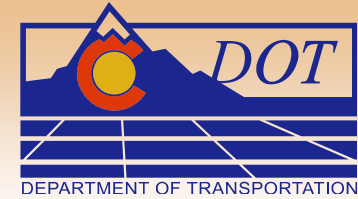
We intend to bring more than one option to CDOT as to what its future budget process might be. To date we have, with CDOT staff, defined the range of possibilities by outlining the two ends of that range with a conservative option and a radical option.

The conservative option represents the minimum of change that would have to be made in CDOT’s “as is” budget process to accommodate cash management. In the conservative option, CDOT would maintain its tight budget control over annual expenditures on each project under development. It would place projects approved by the transportation commission but not yet programmed into the STIP into what CDOT staff refer to as a “staging area”. In this staging area, similar to CDOT’s former illustrative programs, budget information about these projects could be recorded and their inclusion into the STIP could be planned. However, no funds could be spent on these projects until, first, they had been accommodated within the fiscally constrained portion of the STIP, second, set up in the budget. In this conservative option, the official STIP would be updated officially once or twice per year.

The radical option represents the changes required to fully embrace cash management with the risks of overspending appropriations that it entails. The radical option establishes a four-year budget for each project, equal to the period of financial constraint in the STIP, and allows project managers to spend up to their four-year project totals at any time during the four-year period to accelerate projects. OFMB no longer controls expenditures by limiting them during project development but uses project cost and schedule forecasts to predict where accelerated expenditures in some projects will be offset by delayed expenditures in other projects. OFMB still controls cash flow but does so at the beginning of construction by delaying lettings as a forecast of low cash balances may dictate. There is a risk that these measures may not be enough and other measures, such as delays of purchases or short-term borrowing may have to be used.

Both of these options, and the possibilities that lie between them, comply with existing state and federal laws. They also fall within the possibilities that the Federal Highway Administration (FHWA) will accommodate. FHWA trusts CDOT and CDOT need not abuse that trust to accelerate highway projects. CDOT sets the national gold standard for managing the financial constraint of the STIP and achieves excellent standards in other major aspects of federal aid funds management. FHWA is willing to accommodate cash-based program delivery and is encouraging CDOT to separate its budget processes from the programming processes that update and amend the STIP.

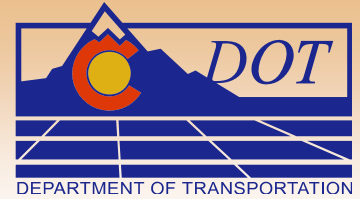
That is not to say that there no changes in legislation that would extend CDOT’s ability to accelerate projects. Colorado is one of the few states that have not enacted a special fund for highway construction in which the appropriations are the deposits of revenues into the fund and not the disbursement of funds out of it. Other states combine such special accounts with a legislated limit on encumbrances in the special account, up to a limit of three years of revenue, to accomplish projects more quickly. Colorado could also lower its minimum required cash balance significantly by removing the “hard stop” on short-term borrowings each 30 June under the Taxpayer Bill of Rights (TABOR). Federal regulation that allowed the carry-forward of unspent obligations from old programs to new programs would also be helpful.



# Program Management and Cash Management Update

February 20, 2014

Scott Richrath, Chief Financial Officer

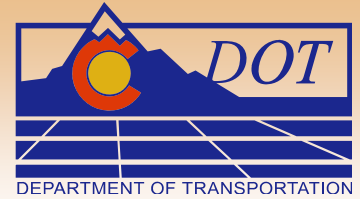


# Agenda

- Overview of Program/Cash Management Implementation
- Results of the Cash Management As-Is Study
- Program Updates

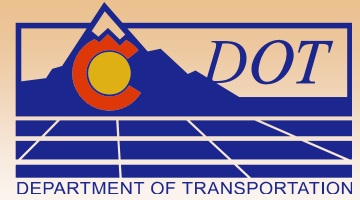


# Program/Cash Management Overview



- Program and Portfolio Relationships
- Cash Management Definition
  - Relationship to Programs and Project Delivery
- Staff Training Opportunities

# What Does the Big Picture Look Like?



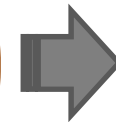
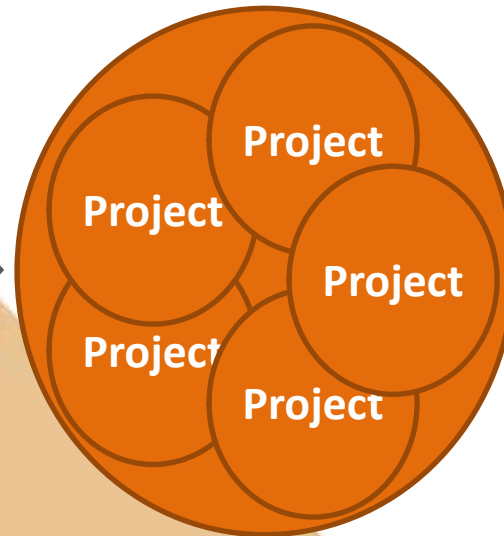
**PROGRAMS**

**PROJECTS**

**PORTFOLIOS**

**RAMP  
ASSET MANAGEMENT**  
Surface Treatment  
Tunnels  
Rockfall  
Etc.

**FASTER SAFETY  
BRIDGE ENTERPRISE**  
Etc.



**High Risk**

**Medium Risk**

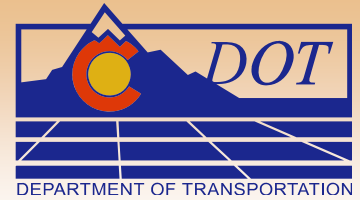
**Low Risk**

**Cash Management**

**Performance Metrics**

**Processes, Tools and Systems**

# Program Management Overview



## Program Management

Master schedule will contain all project schedules

Regulate and balance funding between project schedules

## Portfolio Management

Level of project management based on risk

Grouping specific projects into portfolios

## Project Management

On-time & On-Budget

Scope  
Schedule  
Budget

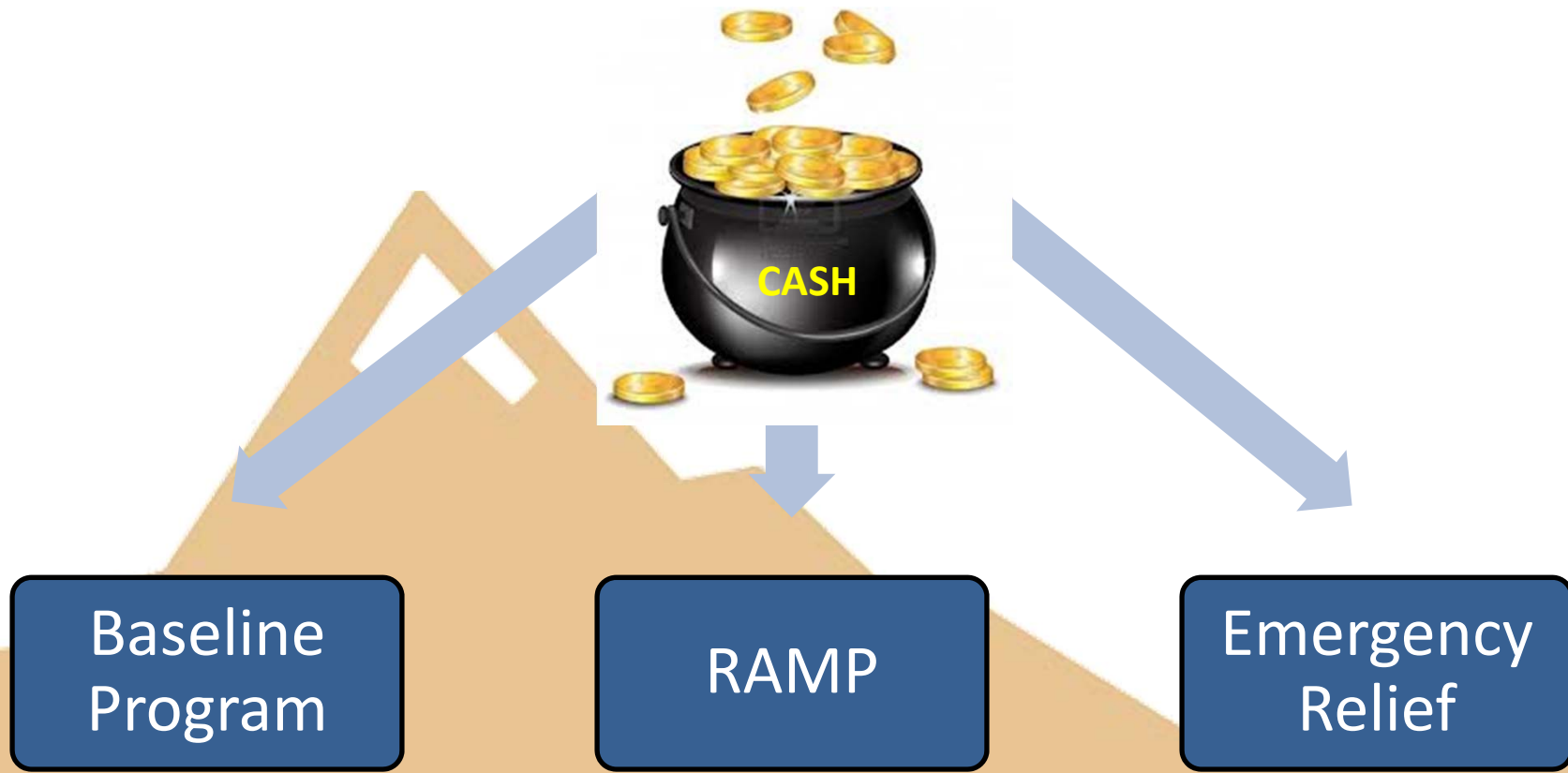
## Cash Management

Use known historical revenue

- Converting from Budget-based to Expenditure-based funding

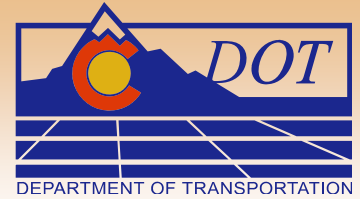
# Cash Management

*MANAGING CASH, PROCESSES, AND SYSTEMS EFFECTIVELY TO ADVANCE MORE FUNDS TO CONSTRUCTION*



Division of Accounting and Finance - Office  
of Cash Management

# How Can I Learn More?



All Employees

Monthly Executive Video Conference Calls (Overview/Progress)

*InMotion* Magazine (Overview/Progress)

Change Hub (Overview/Progress/Interim Guidance)

Roadshows (RE Meetings/SMT Roadshow/Overview/Progress/Interim Guidance)

Employees Directly Affected

**Cash Mgt Workshop**

*Includes overview on all topics*

JAN 28

**Program Mgt Workshop**

*Includes overview on all topics*

MAR/APR

**Asset Mgt Workshop**

*Includes overview on all topics*

APR/MAY

**TRAINING ROADSHOWS**

*As necessary*

SUMMER

**Interim Guidance Training**

*Email Notice*

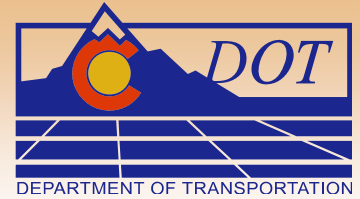
*Posting on Construction/Engineering Pages*

*Follow-up Teleconference*

**Future training sessions also planned**

Division of Accounting and Finance - Office of Cash Management

# Cash Management Overview



- Enable more construction projects to be completed each year
- Reduce our current cash balance
- Monitor and report on cash status







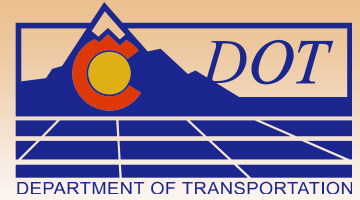






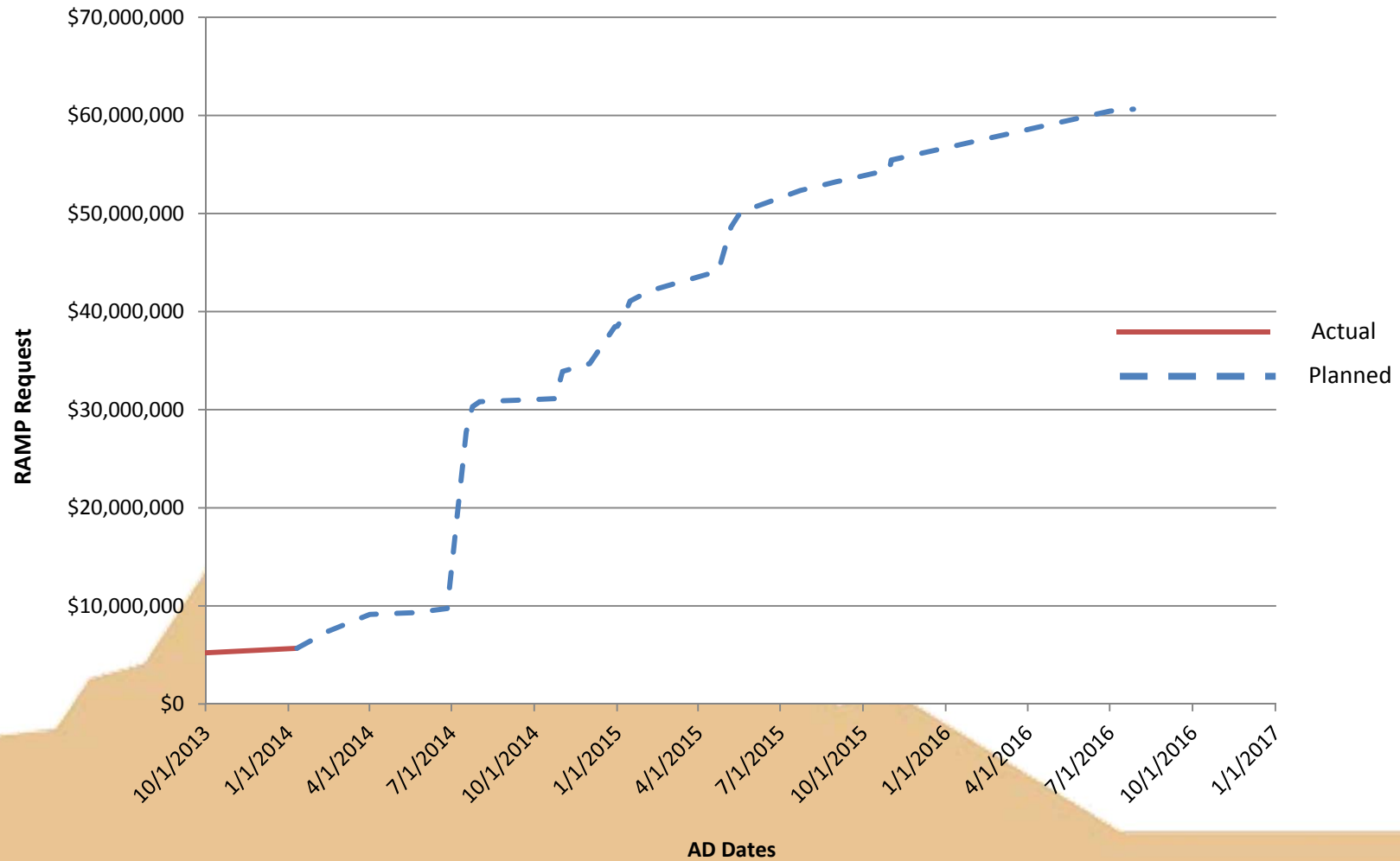




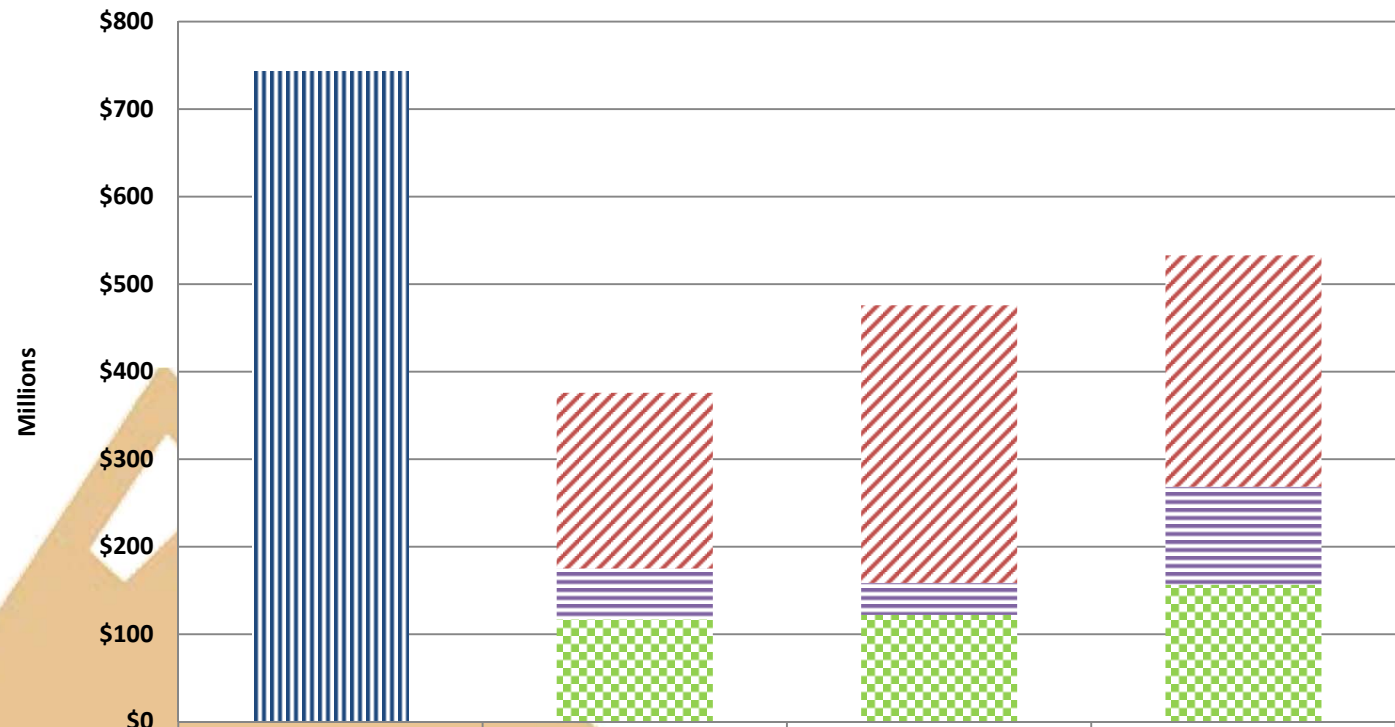
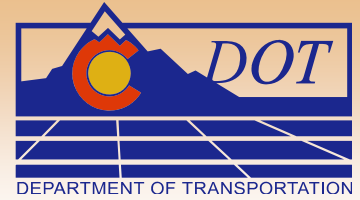


# RAMP Update - Operations

### Cumulative RAMP AD Dollars

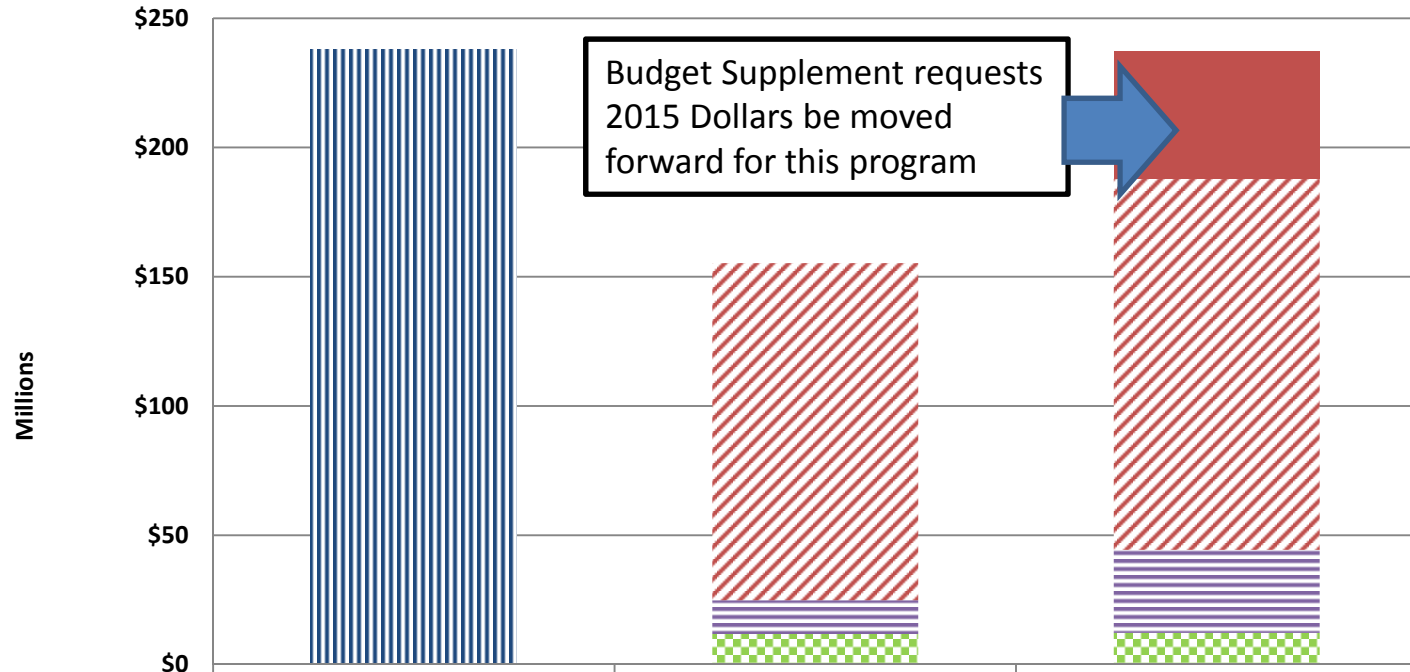
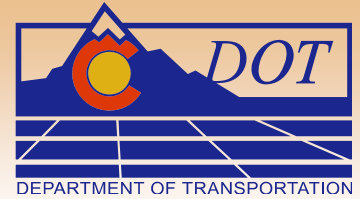


# Status of the 2014 Asset Management Projects

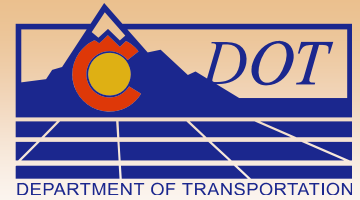


	Total Approved Budget	Dec 2013	Jan 2014	As of Feb. 4, 2014
Remaining Project Budget (Millions)		\$200.82	\$317.27	\$264.50
Encumbered (Millions)		\$58.12	\$36.48	\$111.75
Expenditure (Millions)		\$116.99	\$122.17	\$156.76
Total Approved Budget (Millions)	\$743.30			

# Status of 2014 Surface Treatment Project List



	Total Approved Budget	Jan 2014	As of Feb. 4, 2014
■ February Budget Action			\$49.23
▨ Budget Remaining (Millions)		\$130.44	\$143.59
▨ Encumbered (Millions)		\$13.04	\$32.08
▨ Expenditure (Millions)		\$11.81	\$12.25
Total Approved Budget	\$238.00		

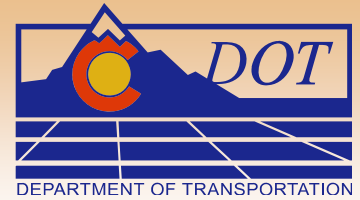


# 2014 Surface Treatment Projects In the Budget Supplement

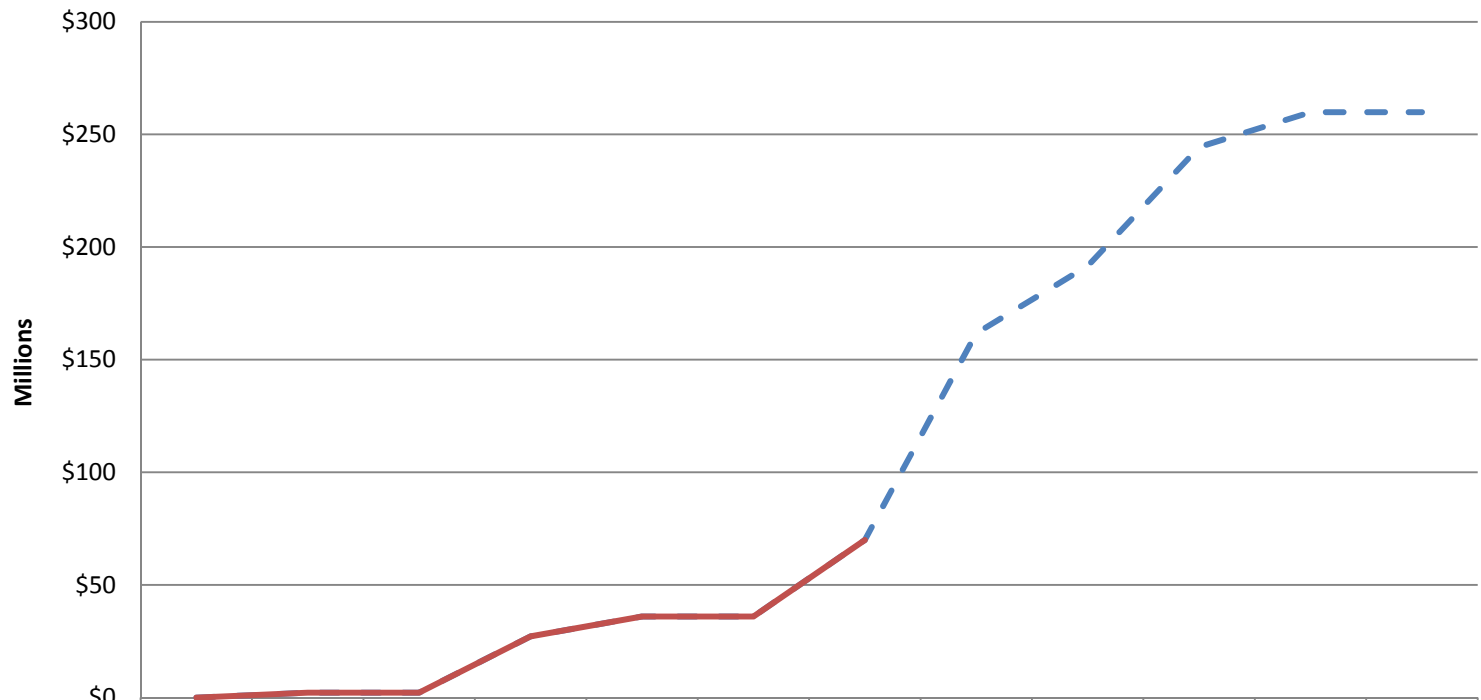
- *US 36: Cabin Creek - \$0.5M*
- *SH 103 (MP 0.0 – 13.500) - \$5.1M*
- *SH 350: Near Thatcher - \$5.6M*
- *SH 119: County Line to I-25 - \$12.0M*
- *SH 14: I-25 East to Weld CR 23 - \$12.5M*
- *US 285: Antonito - North - \$4.5M*
- *US 160: Hesperus to Durango - \$9.0M*



# Advertised 2014 Surface Treatment Projects



**FY14 Surface Treatment Projects Advertisement Status - By Millions  
(As of January 2014)**



	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
— Planned Advertised Projects	\$0.000	\$2.200	\$2.200	\$27.200	\$36.000	\$36.000	\$69.900	\$161.732	\$191.582	\$244.390	\$259.890	\$259.890
— Actual Advertised Projects	\$0.000	\$2.200	\$2.200	\$27.200	\$36.000	\$36.000	\$69.900					