COLORADO
Department of Transportation
Office of the Chief Engineer

4201 East Arkansas Avenue, Room 262
Denver, CO 80222

DATE: JULY 21, 2016
T0: TRANSPORTATION COMMISSION
FROM: JOSH LAIPPLY, CHIEF ENGINEER
MARIA SOBOTA, CHIEF FINANCIAL OFFICER
JANE FISHER, OFFICE OF PROGRAM MANAGEMENT DIRECTOR
SUBJECT: PROGRAM MANAGEMENT WORKSHOP

Purpose

The Program Management Workshop provides the Transportation Commission (TC) with an update on the integration of cash management and program management, asset management, and RAMP.

Action

1) Please see Budget Supplement for TC action required related to two (2) RAMP Partnership projects.

Background

Integration of Cash Management and Program Management:

A primary performance objective related to the integration of Cash Management and Program Management is a reduction of the cash balance. Total program spending has a significant impact on CDOT's cash balance. Management of the Capital Construction Fund (Fund 400) is the most relevant, as it is the majority of CDOT's primary operational activity recorded in the fund. Fund 400 is approximately 90% of CDOT's entire state fiscal year 2016-2017 budget. The attached Fund 400 Cash Balance Memorandum provides additional details. As has been indicated previously, PMO will report on fiscal and calendar year expenditures though June 2016 and limit reporting to calendar year thereafter. As a result, this is the last month that addresses fiscal year reporting.

Asset Management:

The TC had no further questions on the asset management related material presented at the June Meeting. Moving forward, project specific asset management related content will be included as part of PMO Workshop updates when needed to support TC actions or decisions neither of which is requested this month.

RAMP:

The RAMP program was initiated in November 2012 as a means to reduce the cash balance. Shortly thereafter the TC approved a project list and has since approved groups of projects and individual projects. As has been the case fo for the past few months PMO workshop updates are now limited to background associated with requested TC actions.

Details

Integration of Cash Management and Program Management:

PMO is tracking program delivery at the statewide level using the expenditure performance index (XPI) to evaluate actual construction expenditure performance as compared to planned. As indicated in Figure 1 below, June's actual expenditures were slightly below target (XPI = 0.95). Fiscal year 2016 XPI is also below the target (XPI = 0.95 with actual expenditures of $753M as compared to the $790M target). The target was established in May 2015 based on anticipated project advertisement dates and associated monthly construction expenditures (drawdowns) as available.

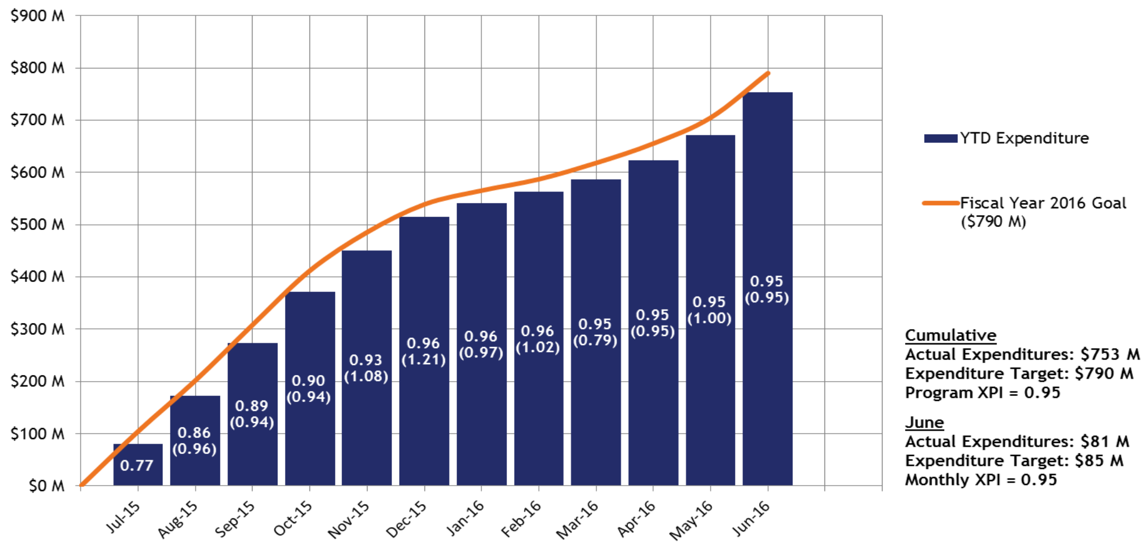
The TC was first informed of the potential of not meeting the Fiscal Year 2016 target in the May TC meeting. At that time the TC indicated that achieving something less than 2% to 3% of the target would not be unexpected given the expenditure increase from previous years. However, in the end we were not able to overcome the cumulative difference between planned and actual expenditures that plaugued us from the beginning of the fiscal year. The planned versus actual difference began at a low of about -$24M last July, grew steadily throughout the construction season, reduced after the decision was made to add projects to the program over the winter, steadily increased again, and ultimately ended the fiscal year at about -$37M.

A number of actions are planned in support of improved performance moving forward:

1. *Only establish calendar year expenditure targets:* As has been discussed with the TC previously, eliminating establishment of fiscal year targets will be a benefit as it is very challenging to estimate expenditures in the middle of the construction season. In addition, calendar year targets are planned to be established as a range rather than as a point estimate.
2. *Increasing accuracy of project advertisment dates*: It has been determined that overly optimistic advertisement dates for projects included in the fiscal year 2016 baseline was one reason for the shortfall. In response, an increased emphasis on the development and monitoring of schedules for preconstruction activities is planned. This will include items such as ensuring design development has progressed sufficiently before advertisement dates are established and also that schedules are routinely revisited and advertisement dates updated if/as applicable as issues arise.
3. *Routinely including additional required elements (AREs) in construction bid documents:* This will enable project scopes to be more easily increased as may be needed to increase construction expenditures in support of calendar year 2017 targets.
4. *Increasing accuracy of projected monthly construction expenditures*: In fiscal year 2016 the expenditure target was established by a combination of project managers (if project included in baseline was in preconstruction) and construction contractor drawdowns (if project included in baseline was in construction). The inaccuracy of monthly construction expenditures for projects in preconstruction was influenced by a number of factors including items such as: inclusion of shelf and over-planned projects which only proceed to construction if funding is made available and establishing before sufficient design development has been completed. In the case of projects in construction, monthly construction expenditures were provided by construction contractors which were overly optimistic as is common given their interest in front end loading for cash flow purposes. Refinement of the approach for estimating expenditures is planned to change and will include items such as: ensuring design development is sufficient

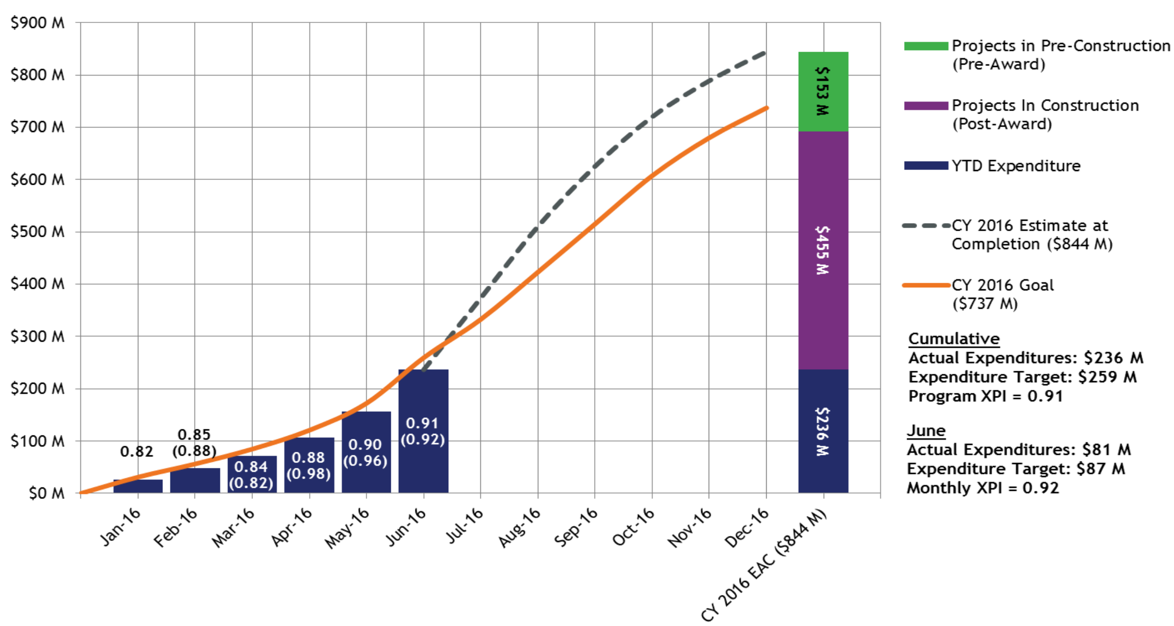
before setting project baseline values and considering a combination of statistical modeling and contractor drawdown data to improve accuracy.

Figure 1 – FY 2016 Capital Program Construction Expenditure



In Figure 2 below, the cumulative Calendar Year 2016 XPI is 0.91 which is an improvement since May. June's actual expenditures were below the expenditure target (XPI = 0.92).

Figure 2 – CY 2016 Capital Program Construction Expenditure



RAMP:

Table 1 details RAMP Partnership and Operations projects (CDOT & Locally Administered) that have not yet been awarded. As detailed in the Budget Supplement, staff is requesting TC action regarding two (2) RAMP Partnership projects. The first is a budget request of $250,000 in RAMP HPTE Development Funds to conduct a more detailed analysis of the current Level 2 Traffic and Revenue Study for the I-25 North Corridor: Segments 7 & 8. If approved, this will reduce the RAMP HPTE Development Fund to $15,150,000 in remaining RAMP funding. The second is a budget request of $450,000 in Transportation Commission Contingency Reserve Funds to fund a Contract Modification Order (CMO) for safety repairs within the project limits of RAMP Partnership Project #5-10 – US160 / Wilson Gulch Rd Extension. (Please refer to this month's Budget Supplement for more details about these two projects)

Table 1 – RAMP Program Controls Table (remaining unawarded CDOT & Locally Administered projects)

Project Name	Project Budget	RAMP Request	Local Contibution	Other CDOT Funds	Status
CDOT ADMINISTERED					
Adaptive Traffic Signals System in Longmont	$5,500,000	$4,670,000	$770,000	$60,000	Ad in July
SH 74 South of El Rancho Safety Shoulders	$57,947	$57,947	$0	$0	Ad in July
Crossroads Bridge Replacement @ I-25	$37,000,000	$35,000,000	$2,000,000	$0	Ad in July
US 385 Intersection at Yuma CR 33.6	$736,000	$485,000	$254,000	$0	Ad in July
New Traffic Signal Controllers in Denver Metro	$1,060,000	$1,060,000	$0	$0	Ad in August
Maintenance Decision Support System (MDSS)	$250,000	$250,000	$0	$0	Operations Procurement
HPTE P3 Development Fund ‡	$40,000,000	$15,400,000‡ - (250,000)	$0	$0	Refer to Supplement for RAMP Request
LOCALLY ADMINISTERED					
US 287: Conifer to LaPorte Bypass (Phase III) – The Gap	$2,200,000	$1,106,000	$0	$0	Ad in July
Loveland I-25 and Crossroads Blvd. Anti-Icing Spray System	$250,000	$200,000	$50,000	$0	Ad in Aug

Project Name	Project Budget	RAMP Request	Local Contibution	Other CDOT Funds	Status
SH 14 / Greenfields Ct. - Frontage Rd. Relocation and Intersection Improvements	$2,100,000	$1,680,000	$420,000	$0	Ad in Nov
SH 392 & CR 74 Intersection Safety Improvements	$2,249,875	$1,000,000	$1,249,875	$0	Ad in Dec
SH 392 & CR 47 Intersection Safety Improvements	$3,685,180	$1,842,590	$1,842,590	$0	Ad in Jan
SH 119 Boulder Canyon Trail Extension	$5,466,350	$4,373,080	$1,093,270	$0	An in Jan
Federal Blvd: 6th to Howard Reconstruction and Multimodal Improvements	$29,181,821	$23,341,821	$5,840,000	$0	Ad in Feb

‡ This total represents the remaining RAMP Development funding still available. HPTE staff has prepared a HPTE Development Fund Policy and Evaluation Criteria guidence document which the Executive Committtee is in the process of reviewing. In accordance with PD703.0, the July 2016 budget supplement provides more detail regarding the Region 4 / HPTE budget request.

Attachments

1. Attachment A – Fund 400 Cash Balance Memorandum
2. RAMP Budget Request Memorandum

COLORADO
Department of Transportation
Division of Accounting and Finance

4201 East Arkansas Avenue, Room 262
Denver, CO 80222

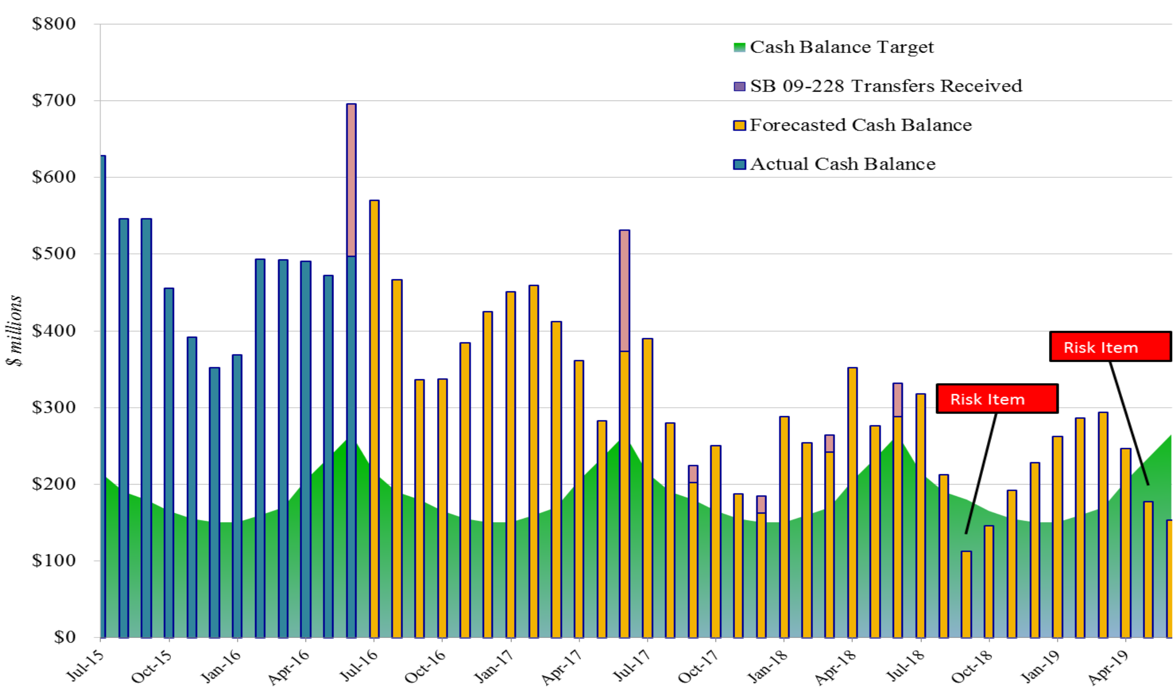
DATE: JULY 21, 2016
TO: TRANSPORTATION COMMISSION
FROM: MARIA SOBOTA, CHIEF FINANCIAL OFFICER; JOSH LAIPPLY, CHIEF ENGINEER
JANE FISHER, PROGRAM MANAGEMENT OFFICE DIRECTOR
SUBJECT: ATTACHMENT A – FUND 400 CASH BALANCE MEMORANDUM

Details of Cash Balance Chart

A primary performance measure related to the integration of Cash Management and Program Management is a reduction of the cash balance. Total program spending has a significant impact on CDOT's cash balance. Management of the Capital Construction Fund (Fund 400) is the most relevant, as a majority of CDOT's primary operational activity flows through the fund. Fund 400 is inclusive of large budget items including payroll, vendor construction payments, and maintenance and facilities costs.

The actual and forecasted cash balances by month, as developed within the Fund 400 Forecast Model, is presented below in Table 1 titled *Fund 400 Cash Balance Forecast*. This chart is prepared by blending Fund 400 model revenues, expenditures and forecasts to calculate a current month cash balance and a 36 month cash balance forecast. Being able to forecast risk items up to 36 months in advance will allow CDOT to be proactive in risk management. This will allow advance opportunities for CDOT to affect change in the short-term and to manage risk in the long-term. This cash balance forecast is then positioned on top of the cash balance threshold targets. If, at any time in the 36 months window, the forecasted project values drop below the established cash balance threshold, a "risk item" is identified.

Table 1 – Fund 400 Cash Balance Forecast



The forecast attached shows a significant increase in cash balances over the next 24 months, relative to the forecast prepared in November 2015. The cash balances forecasted for late autumn 2016 have increased from approximately $200 million to $400 million. The change in the forecast primarily results from increased revenues related to SB 09-228 transfers.

A significant portion of SB 09-228 funds received in FY2015-16 will be used for Central 70. The cash outflow attributable to Central 70 costs consuming SB 09-228 funds is also included in the Fund 400 model. Future years' SB 09-228 transfers also assumed to be $0 in the November 2015 forecast are now included in the forecast as shown in Table 2.

Table 2 – SB 09-228 Revenue Forecasts

State Fiscal Year	**Revenue Forecasts**
FY 2015-16	$199,200,000
FY 2016-17	$158,000,000
FY 2017-18	$110,000,000
Total	$467,200,000

The total cash balance at the end of June, 2016 was $714,300,851. This amount includes balances for Fund 400 as shown in Table 1 ($454,849,203) plus $218,880,855 in Fund 538 (not shown in Table 1) and $40,570,793 in all other funds (HPTE, Aeronautics and the SIB also not shown in Table 1).

Next Steps

Continued monitoring and refining of forecast data to support a Transportation Commission semi-annual review of the effectiveness of management processes and practices.

COLORADO
Department of Transportation
Region 5

Region Director's Office
3803 N. Main Avenue, Suite 306
Durango, CO 81301

MEMORANDUM

DATE: JULY 21, 2016

TO: TRANSPORTATION COMMISSION

CC: JOSH LAIPPLY, CHIEF ENGINEER; MARIA SOBOTA, CHIEF FINANCIAL OFFICER JANE FISHER, PMO DIRECTOR

FROM: MICHAEL D. MCVAUGH, REGION 5 TRANSPORTATION DIRECTOR

SUBJECT: RAMP PROJECT #5-10 (19902), US 160 / WILSON GULCH ROAD EXTENSION

Purpose

Region 5 is requesting approval to use $450,000 of Transportation Commission Contingency Reserve Funds (TCCRF) to pay for unexpected costs associated with a bridge approach repair for the US 160 / Wilson Gulch Road Extension RAMP Partnership (RAMP #5-10) project in Durango under a Contract Modification Order (CMO).

Action

Per P.D. 703, staff is requesting Transportation Commission (TC) approval to budget an additional $450,000 for the US 160 / Wilson Gulch Road Extension using TC Contingency funds via the July TC budget supplement. Approval of funding will minimize traffic impacts and allow for the timely completion of the repairs by late September 2016. Region 5 is prepared to reimburse the TC for a minimum of ½ of the requested cost of this repair ($225,000) once the region has realized savings from current projects that are under construction. If additional funding is identified, the region will also consider reimbursing the contingency fund for the entire amount.

From a project scheduling standpoint, it makes sense to complete the safety repairs now prior to the opening of the Wilson Gulch Road Extension in late September 2016. The region considered requesting TPR approval to use RPP funds. However, this option risks delaying the repairs and would require advertising a separate contract. Advertising this project would likely increase the overall cost of the project by 50% pushing the repair cost to upwards of $750,000 dollars.

The RAMP Sponsor Coalition discussed several alternative funding options. The Coalition fully supports the funding request given the nature of the repair required and the cost savings that would be recognized by securing additional funding in July. The region suggested that the Coalition consider using other RAMP project savings or RAMP Contingency funds. After reviewing RAMP funding guidelines, the Coalition determined that the use of RAMP funds was not necessarily the best option. However, during the workshop if the TC opposes using TCCRF funds, this alternative can be discussed further.

Background

The US160/US550 Interchange was awarded May 2008 and completed in November 2010. The scope included the construction of four (4) bridges. The approaches to these structures have experienced subgrade settlement of 6 to 10 inches due to unforeseen site conditions (settlement was anticipated in the geotechnical design, but to an extent that was not foreseen, which must now be corrected). The second component of this regionally significant project is the originally approved RAMP Partnership project (#5-10) which is nearing completion. The RAMP Partnership project limit (beginning and end-point) includes the areas affected by the subgrade settlement (bridge structure approaches). The contractor associated with the original 2010 project would be doing the repairs as a subcontractor on the RAMP project. The work would be overseen by region staff.

The bridge structures are not affected as the foundations are bearing on bedrock deep below the subgrade soils.

Details

This project will connect the new Three Springs Development and new regional hospital to the US160/US550 Interchange which will increase traffic on the interchange and bridges. To minimize traffic impact and resolve a critical safety concern with regards to the bridge approach settlement, region staff has assessed all options to rectify the situation and recommends that contingency funding be used to mitigate the safety deficiency. The preliminary estimate for the CMO and the administrative costs is $450,000. This is not a change in the scope to the RAMP Partnership project, but in order to bring the US160/US550 Interchange approaches into compliance with CDOT design standards prior to traffic increasing on the interchange, the project's contract must be modified to compensate for the CDOT requested safety repairs.

This CDOT and City are partnering on this project in a 33:67 ratio for the first $6,400,000 of project costs. The City and La Plata County has funded an overmatch of an additional $1,759,000 in addition to the RAMP project portion. The City is supportive of incorporating the repair work into the project as a CMO, the FHWA also concurs with the Region's plans that the work can be completed via a CMO. The region has also discussed this safety repair need with Transportation Commissioner Sidny Zink, who is in favor of completing this repair under the existing contract with the City.

Key Benefits

Approving the funds for this request will allow for the safety repairs to be completed within the current project schedule by the fall of this year with minimal disruption to the traveling public. The safety repairs will ensure that the public is not exposed to the bumps at the bridge approaches once Wilson Gulch Road is opened and traffic increases.

Options

1) Approve Region 5's request for $450,000 of TCCRF funds with a commitment from Region 5 to reimburse the TC for a minimum of 50% of the request ($225,000). (Staff Recommendation)
2) Request additional information regarding using RAMP savings or contingency funds.
3) Decline the request for additional funding.

Next Steps

Upon approval of the funding request, the Region will complete the necessary steps to fund the CMO and execute the repair work this fall. If denied, the Region will seek approval from the Region's TPRs to utilize RPP funding, potentially delaying the repair work until next year after the RAMP project is open to traffic.