



OFFICE OF THE CITY AUDITOR COLORADO SPRINGS, COLORADO

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17-30 Colorado Springs Utilities Southern Delivery System Monitoring

November 2017

Purpose

The purpose of this audit was to monitor the major water construction project for Colorado Springs Utilities known as the Southern Delivery System (SDS). This audit included work in the areas of construction monitoring, project controls, procurement, and land acquisition.

Highlights

We conclude major construction activities for the Southern Delivery System (SDS) were completed on time and below budget. Additionally, the SDS team has transferred experience gained by developing project management organizational resources. The SDS project was being managed in accordance with the agreements in place. Internal controls relating to governance, reporting of costs, funding, and compliance with applicable laws, regulations, and governmental agreements were strong. The SDS project was in compliance with Colorado Springs Utilities' policies and procedures in all areas tested. The acquisition of land complied with applicable standards and laws. There were no reportable recommendations for the 2016-2017 audit period.

SDS began delivering water to customers in Colorado Springs on April 28, 2016 and most construction tasks were completed by year-end 2016. Activities continued during 2017 for land acquisition and design for a future reservoir, as well as environmental mitigation projects and payments consistent with requirements of the 1041 permit with Pueblo County.

The SDS Mission statement was: *"While keeping our commitments to Program stakeholders, we effectively leverage our talent and experience to safely place the SDS in full and efficient operation by April 2016. We always manage the Program to deliver best value to our customers within the approved budget. We will intentionally transfer experience gained to optimize the enterprise's capital Program management and conduct of our core business."*

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Commendable Practice

Major construction of the Southern Delivery System program was completed on time and under budget. We recognize the following commendable practices regarding SDS:

1. SDS was completed on time and under the 2009 budget. Savings compared to the 2009 budget will be approximately \$164 million.
2. Savings of over \$400 million compared to original budget with financing costs will be achieved by the completion of phase 1 in 2020.
3. Transfer of knowledge was achieved in part through SDS team members working to help establish new project management guidelines. These resources have been shared with the City also.

Management Response

No management response was required.

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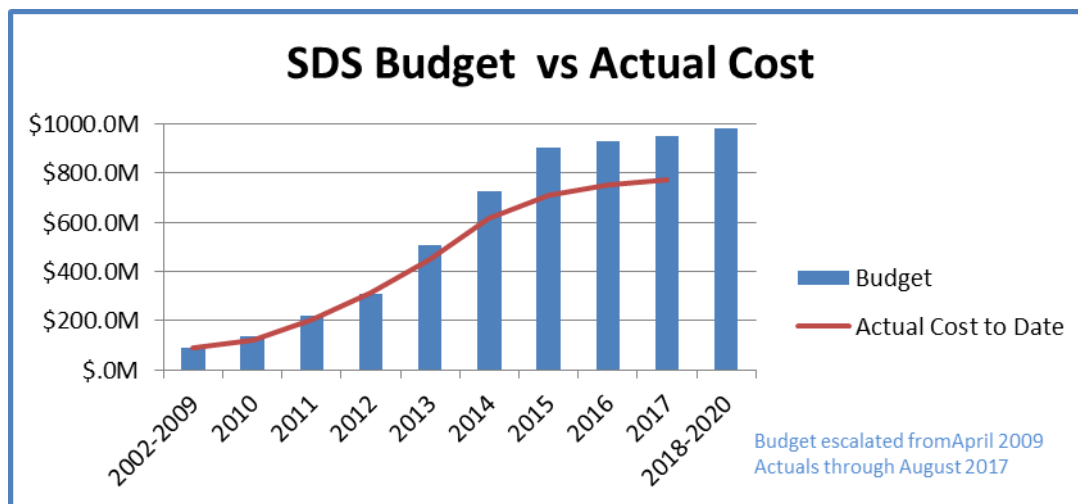
The commitment to stakeholders was achieved through completion of the project, plus the execution of two key Intergovernmental Agreements. An Operating Intergovernmental Agreement (IGA) was executed between the SDS partners to establish ongoing operating protocols and cost sharing parameters. Per the terms of the Operating IGA, an audit will be conducted annually of the partner's operating costs. Partner costs in 2016 were audited as part of this review. No issues were reported. A second IGA specifies agreements for stormwater spending and projects between the City of Colorado Springs, Utilities, and Pueblo County to be undertaken between 2016 and 2035 to address stormwater management issues not included in the SDS 1041 permit.

Transfer of knowledge was achieved through the unique approach of reintegration of SDS team members within Utilities and City departments. One tangible outcome of this knowledge transfer has been the development of project management handbooks for construction at both Utilities and the City's Public Works Division.

Project Cost Overview

In July 2009, the SDS construction budget was established for Phase 1 at \$880 million stated in April 2009 dollars. Accounting for inflation, the escalated budget equates to \$985 million after all direct project costs are paid through 2020. All budget and spending figures in this report refer to total project spending, including partner's share. The Colorado Springs Utilities share is approximately 95% of the total project spending.

As of October 2017, the project team was forecasting the cost at completion would be \$821 million, approximately \$164 million below the escalated budget. These savings represent realized and anticipated cost savings identified to date. When financing costs are factored in, the actual cost for SDS through 2020 will be more than \$400 million below the projections made in the 2010 rate review.



Actual spending for 2016 through August 2017 totaled \$60 million, bringing project to date spending to \$771 million. Of the \$771 million, \$546 million has been spent on engineering and construction costs, the remainder was used for non-construction program level costs such as land acquisition, permitting, mitigation, and program management. As of December 31, 2016, \$708 million of the accumulated SDS capital costs had been capitalized as fixed assets.

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Background

The Southern Delivery System (SDS) is a multi-year construction project of Colorado Springs Utilities designed to bring water from the Pueblo Reservoir to Colorado Springs and its regional partners. The Office of the City Auditor (OCA) has been engaged to provide continuous monitoring of the project. Phase 1 of the multi-phase project includes all the components necessary to begin delivering water to the partner communities by April 2016. Phase 1 of SDS includes construction of approximately 50 miles of raw water pipelines, three pumping facilities to convey water, a new water treatment plant with a finished water pump station capable of treating up to 50 million gallons per day, additions to finished water distribution pipelines, and land acquisition for the Upper Williams Creek (Bostrom) reservoir.

The OCA has provided real-time feedback to the SDS team on all issues identified. Because of this relationship, some issues have been identified and corrected prior to the issuance of this report.

Topics reviewed by the auditors for this report included:

- ◆ Program Governance and Project Management
- ◆ Program Cost
- ◆ Quality Management
- ◆ Human Resources Management
- ◆ Project Closeout
- ◆ Capitalization of assets placed into service
- ◆ Environmental/Permitting
- ◆ Safety
- ◆ Land Acquisition
- ◆ Partner Costs per the Operating IGA

Scope and Objective

The audit period for this report was calendar year 2016-2017. Six previous reports have been issued on the SDS project covering periods 2002-2015. All prior reports are available for review on the OCA website. This report will be the last report on Phase 1 of SDS.

The focus of this multi-year audit changed with the project's progression. The OCA's risk and fraud assessment for the audit was updated periodically as the project moved forward. The audit also considered SDS' alignment with the organization's strategic goals and objectives.

The auditors would like to acknowledge the high level of cooperation and access which was afforded to the OCA during the years of the SDS audit.