



OFFICE OF THE CITY AUDITOR
COLORADO SPRINGS, COLORADO

15-03
2014 Southern Delivery System
Monitoring Report

February 2015



OFFICE OF THE CITY AUDITOR COLORADO SPRINGS, COLORADO

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Purpose

The Office of the City Auditor (OCA) provides auditing and continuous monitoring of the Southern Delivery System (SDS) for compliance with applicable laws, regulations and governmental agreements. The audit period for the report was 2014. The OCA intends to provide an annual report on the project until it is completed.

Highlights

Overall, we concluded that the SDS project is 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 we tested. The acquisition of land complied with applicable standards and laws. The selection of contractors was effective in ensuring the process was fair and competitive

During the course of the 2014 audit, we identified four new observations and one opportunity for improvement where we believe internal controls could be strengthened. With the exception of the 2012 follow up review of the impact of SDS on water rates, all previous recommendations have been implemented. We anticipate the water rate impact review will be completed in early 2015.

The SDS budget is \$988 million after all direct project costs are paid through 2021. As of December 31, 2014, the project team was forecasting completion of the project under budget, with a forecast-to-complete of \$841 million. Actual total-project spending as of December 31, 2014, was \$619 million which includes spending of \$168 million in 2014.

Management Response

Colorado Springs Utilities management agrees with the recommendations. See detailed responses in the attached report.

Recommendations

1. Clarify how shared savings will be calculated per the terms of the Water Treatment Plant contract.
2. Update the Contractor Minimum Safety Requirements and other policies as needed to reflect the intent that the work place remains drug-free despite the state-legalization of marijuana in 2014.
3. Develop a method for briefing construction workers on the drug-free policy and encourage reporting of potentially impaired fellow workers.
4. Convey safety information with non-English speaking workers in a language they can understand.

Opportunities

Request additional supporting documentation related to contingency requests for the Water Treatment Plant.

Commendable Practices

1. Improvements to the Water Treatment Plant design will yield cost savings and safety enhancements.
2. Stakeholder involvement in procurement evaluation should help ensure success of the reservoir design.



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REPORT DETAILS

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 project partners. The Office of the City Auditor (OCA) has been engaged to provide continuous monitoring of the project.

The OCA provides 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. This report also includes follow-up on open observations from previous reports.

Colorado Springs Utilities is an enterprise of the City of Colorado Springs. The OCA reports to the Colorado Springs City Council and provides independent audit, attestation and consultation services to the City Council regarding the City and the City's enterprises.

SCOPE AND OBJECTIVE

The audit period for this report was calendar year 2014. Four previous reports have been issued on the SDS project:

- The 2010 Report covered the period from 2002 – 2010 and was issued November 2011
- The 2011 Report covered 2011 activity and was issued August 2012
- The 2012 Report covered 2012 activity and was issued June 2013
- The 2013 Report covered 2013 activity and was issued February 2014

This report will be referred to as the 2014 SDS Monitoring Report. The intent of the OCA is to provide an annual report on SDS until the project is completed. Phase 1 includes construction of raw water pipelines from Pueblo Dam, three pump stations, water treatment plant and some finished water pipelines.

The focus of this multi-year audit changes with the project's progression. During 2014, current-year activities such as program safety, pay application processing, work product acceptance, and staffing changes were reviewed. In addition to the review of current-year activities, we completed routine monitoring of governance, reporting of costs, funding, and land acquisition. The reviews were focused on compliance with contract terms and internal control processes. The auditor's risk and fraud assessment is updated periodically as the project moves forward. The assessment is aligned with the organization's strategic goals and objectives.

The key objectives of the audit were:

- Monitor the project for compliance with applicable laws, regulations and governmental agreements.



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- Document and review project controls, including budget, financing, and schedule controls for effectiveness, efficiency, and fraud prevention.
- Review the selection process for contractors to ensure a fair and competitive process is followed.
- Review financial records for compliance with Colorado Springs Utilities procedures as well as for accuracy and completeness.
- Monitor and review land acquisition for compliance with standards and laws.
- Document and monitor project management and governance activities for effectiveness, efficiency and accuracy.

Prior SDS reports have included a follow-up section for previous report recommendations. At the conclusion of 2014, all outstanding observations directly-related to SDS were implemented, and therefore this section has been omitted this year.

One recommendation which is indirectly related to SDS remains outstanding. This involves a review of the financial impact of SDS on ratepayers. This effort was reviewed as part of the 2012 multi-year water rate case heard by City Council in July 2012. This prior report is #13-12 and is available on the Auditor's web site. Data required to update the review of SDS's impact on water rates is forthcoming, and we anticipate review of the data in early 2015.

CONCLUSION

We conclude that the SDS project is 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 we tested. The acquisition of land complied with applicable standards and laws. The process of selecting contractors was fair and competitive.

During the course of the 2014 audit, we identified four new observations and one opportunity where we believe internal controls could be strengthened. These areas are discussed on the pages that follow. Due to the ongoing nature of this audit, issues were brought to the attention of management as they were identified. Because of this, two of the four observations identified during 2014 were implemented prior to the issuance of this report.

We appreciate the on-going cooperation of the SDS team and the associated support departments within Colorado Springs Utilities to conduct this audit.



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BACKGROUND

SDS is a multi-phased regional project to bring water from the Arkansas River to the City of Colorado Springs, the City of Fountain, the Security Water District, and the Pueblo West Metropolitan District.

Phase 1 of the multi-phase project includes all the components necessary to begin delivering water to the partner communities by April 2016. All budget and spending figures in this report refer to total project spending, including the partner's share. The Colorado Springs Utilities share is approximately 95% of the total project spending.

PROJECT ACCOMPLISHMENTS THROUGH 2014

Phase 1 of SDS includes construction of approximately 50 miles of pipeline, three pumping facilities to convey water from Pueblo Dam northward through portions of Pueblo and El Paso counties, a new water treatment plant capable of treating up to 50 million gallons per day, and additions to finished water distribution pipelines to supply treated water to current and future utilities customers. Milestones completed in 2014 include

- the pipeline connection to Pueblo Dam,
- one-mile long tunnel boring under I-25, Fountain Creek, and rail road tracks that joins the already installed 40+ miles of pipeline,
- required mitigation on Fountain Creek,
- significant facility construction at the water treatment plant and pump stations, and
- possession of all land for Phase 1 construction.

The activities listed above were the focus of the 2014 audit.



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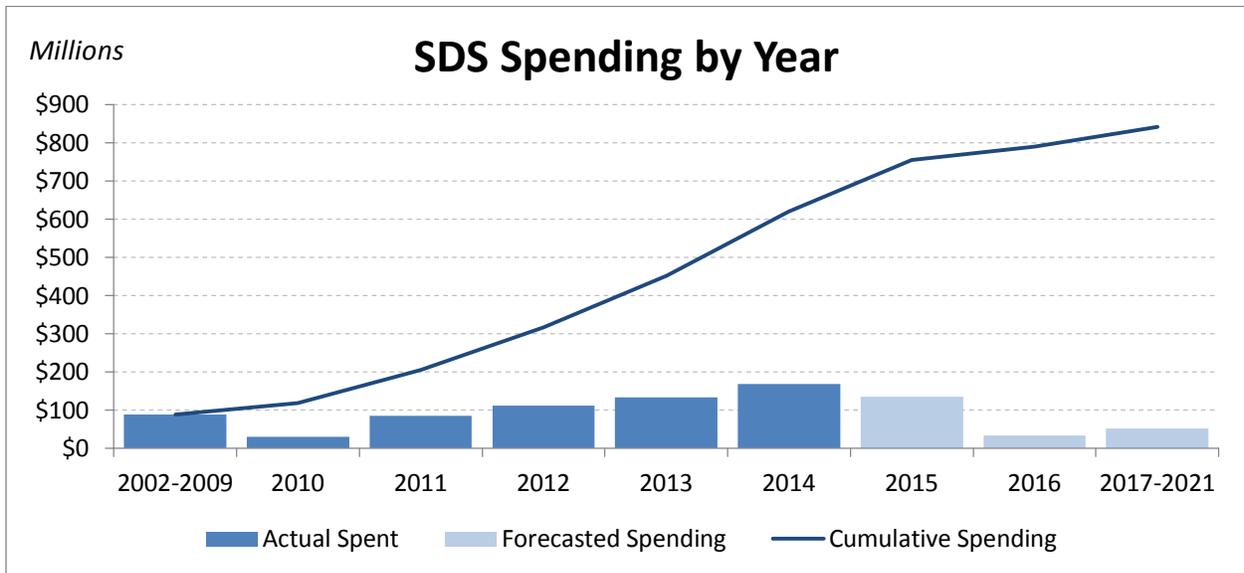
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PROJECT COST OVERVIEW

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 \$988 million after all direct project costs are paid through 2021.

As of December 31, 2014, the project team was forecasting the cost-to-complete would be \$841 million which is approximately \$147 million below the escalated budget. These savings represent realized and anticipated cost savings identified to date.

Actual spending in 2014 totaled \$168 million, bringing project to date spending to \$619 million. Of the \$619 million, \$454 million has been spent on engineering and construction costs, the remaining used for non-construction program level costs such as land acquisition, permitting, and program management.



Spending and other information is made available to the public via the SDSwater.org website. The numbers used in this report were from preliminary accounting reports for 2014. Final numbers will not be available until after publication. However, the accuracy of the SDS financial reports has been compared by the auditors to the financial system in the past with no discrepancies identified.



COMMENDABLE PRACTICES

AN INTEGRATED DESIGN WAS UTILIZED TO ACCOMPLISH SAFETY AND EFFICIENCY IMPROVEMENTS AT THE SDS WATER TREATMENT PLANT

An integrated design and construction process includes the active participation of the future Colorado Springs Utilities' operations staff. This process helps to eliminate or prevent hazards to personnel, rather than relying on personal protective equipment and can reduce project and maintenance costs. Over the past year, we have noted several improvements to the SDS Water Treatment Plant (WTP) which are noteworthy because they improved safety or reduced costs. They are:

1. Addition of access-hatches for easier maintenance-access for the long-term life of the new WTP and for quality inspection during the construction phase.
2. Eliminated work-at-height by providing a common central-platform between adjacent chemical tanks. Instrumentation was placed within reach of the platform. This change resulted in cost savings and mitigated hazards to personnel.
3. Strategic position of the main process building to locate all access on the south side of the building. All storm drainage was routed under the main access roads. These actions will help prevent slips, trips, and falls associated with freezing conditions typical of the north side of buildings.
4. Placement of the maintenance bays with the main process areas which reduced construction costs, and provided direct access to the work area.
5. Changed material of process-pipe which increased physical durability.

INCORPORATED STAKEHOLDER INPUT FOR PROCUREMENT

Good communication and relationships with stakeholders are critical to the success of projects. In the case of the Upper Williams Creek Reservoir Preliminary Design procurement, the proposal evaluation team went above the normal processes to ensure their award-decision was based on sound analysis. The evaluation team solicited additional feedback from internal Colorado Springs Utilities stakeholders to ensure this particular work package will continue to meet their needs and that the vendors bidding on the work could meet the standards required.



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OBSERVATIONS/OPPORTUNITY, RECOMMENDATIONS, AND RESPONSES

OBSERVATION 1 – THE SHARED SAVINGS CALCULATION IN THE WATER TREATMENT PLANT CONTRACT WAS NOT WORDED TO ENSURE COMMON UNDERSTANDING

The Water Treatment Plant Guaranteed Maximum Price (GMP) contract and associated amendment include a provision for shared savings. The formula given in the contract was unique and complex. The precise definition of each term and the order of operations were unclear to the auditors. The final calculation of shared savings could be subject to multiple interpretations.

AUDITOR'S RECOMMENDATION

We recommend Colorado Springs Utilities clarify how the shared savings will be calculated per the terms of the Water Treatment Plant contract. We have verified this recommendation was implemented during the audit.

MANAGEMENT RESPONSE

Colorado Springs Utilities agrees with the recommendation. We have confirmed in writing with the general contractor for the Water Treatment Plant how the shared savings provision will be calculated.

OBSERVATION 2 –CONSTRUCTION POLICIES AND PROCEDURES HAVE NOT BEEN UPDATED TO ADDRESS RECENT COLORADO MARIJUANA LEGALIZATION

Recreational marijuana became legal in Colorado effective January 2014. During our review, we observed that Colorado Springs Utilities' policies for contractors did not expressly address the use of marijuana. Colorado Springs Utilities' internal employee policy expressly prohibits the use of marijuana; this information should be included in Colorado Springs Utilities' contractor safety program policies. Without explicit updates to these construction-related safety documents, contractors' employees could mistakenly believe their use of marijuana outside of work was not a violation of Colorado Springs Utilities' drug-free policy.

AUDITOR'S RECOMMENDATION

Colorado Springs Utilities should update the appropriate Utilities' policies as needed. Project managers should ensure that contractor site safety plans comply with the updated policies.

MANAGEMENT RESPONSE

Colorado Springs Utilities agrees with the recommendation. Colorado Springs Utilities will update policies as needed to address the legalization of marijuana. Implementation of this recommendation is expected to occur by June 1, 2015.



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OBSERVATION 3 –DRUG TESTING POLICIES MAY NOT APPLY TO ALL CONSTRUCTION WORKERS

Many of the general contractors working on the SDS project were large contractors with established drug-free work site policies supported by random drug testing of their employees. Some policies required drug testing in the event of an accident. However, employees of some subcontractors may not be subject to random drug testing because they were not direct employees of the general contractors. Without a mechanism for drug-use detection, subcontractors could be performing construction activities in violation of Colorado Springs Utilities' drug-free work site policy and detection could be very difficult. From a legal perspective, there are limitations regarding who Utilities can require to be tested and when.

AUDITOR'S RECOMMENDATION

As reinforcement for those who may not be subject to random drug testing, the SDS team should develop a method for briefing construction workers on Colorado Springs Utilities' drug-free policy work site and to encourage reporting of potentially impaired fellow workers. We believe this recommendation has been implemented for SDS. We will verify it has been implemented during 2015.

MANAGEMENT RESPONSE

Colorado Springs Utilities agrees with the recommendation. The SDS team will continue to periodically address and discuss the importance of awareness and proactive communication of a drug-free work site at daily tool box talks, at weekly safety meetings, in project progress meetings, and at quarterly "safety summits."

OBSERVATION 4 –SAFETY INFORMATION WAS NOT AVAILABLE FOR NON-ENGLISH SPEAKING WORKERS

In 2010, OSHA issued a Training Standards Policy Statement which stated an employer must instruct its employees using both a language and vocabulary that the employees can understand. During our audit observations in the field, we observed groups of workers who prefer their native language, Spanish, as a primary means of communication. We also observed English as the primary language for communicating safety information at briefings and in documents. Sharing safety information, which workers cannot understand, could lead to accidents.

AUDITOR'S RECOMMENDATION

The SDS team should convey safety communication with non-English speaking workers in a language they can understand. During the audit, the SDS team started conveying safety communications in Spanish and English. We have verified that this was implemented during the audit.



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MANAGEMENT RESPONSE

Colorado Springs Utilities agrees with the recommendation. The SDS program provides safety information, including Improve It Flyers, in bilingual formats; we have hired a safety professional who speaks fluent Spanish; we are working with our contractors to ensure safety messaging and training is provided in English, Spanish and other languages as appropriate.

OPPORTUNITY 1 – CONTRACTOR TO PROVIDE ADDITIONAL SUPPORTING DOCUMENTATION FOR CONTINGENCY REQUESTS

The contractor for the Water Treatment Plant included some, but not all, approved contingency requests on pay applications. No single report was available to determine the status of all contingency requests. Some approved changes resulted in moving funds between work segments, but how these changes were related was not clearly explained. The Water Treatment Plant project is very complex and the pay applications include activity on 46 work categories. These pay applications are extremely long and detailed. Without clarification of the contingency payments, it would be easy to overlook an error.

AUDITOR'S RECOMMENDATION

Request the contractor provide additional supporting documentation related to contingency requests for the pay applications on the Water Treatment Plant. We have verified that this was implemented during the audit.

MANAGEMENT RESPONSE

Colorado Springs Utilities agrees with the recommendation and will include supporting documentation for the contingency requests for the Water Treatment Plant pay applications. Additionally, all life-to-date supporting documentation for pay application contingency requests is in the Primavera Contract Manager database.

CITY COUNCIL'S OFFICE OF THE CITY AUDITOR

About our Office

The mission of the Office of the City Auditor is to provide City Council with an independent, objective and comprehensive auditing program for operations of the City. Our auditing program includes:

- Evaluating the adequacy of financial controls, records and operations
- Evaluating the effectiveness and efficiency of organizational operations
- Providing Council, management and employees objective analysis, appraisals, and recommendations for improving systems and activities

The Office of the City Auditor is responsible for auditing the systems used by the City of Colorado Springs and its enterprises, including Colorado Springs Utilities. We perform a variety of audits for these entities, including financial audits, performance audits, contract audits, construction audits, and information system audits. We also perform follow-up on a periodic basis to monitor and ensure management actions have been effectively implemented.

Authorization and Organizational Placement

Our audits are conducted under the authority of Chapter 1, Article 2, Part 7 of the Colorado Springs City Code, and more specifically parts 703, 705 and 706 of the Code. The Office of the City Auditor is structured in a manner to provide organizational independence from the entities it audits. This independence is accomplished by the City Auditor being appointed by and reporting directly to the City Council.

Audit Standards

The audit was conducted in a manner that conforms with the International Standards for the Professional Practice of Internal Auditing, a part of the Professional Practices Framework promulgated by the Institute of Internal Auditors.

The audit included interviews with appropriate personnel and such tests of records and other supporting documentation as deemed necessary in the circumstances. We reviewed the internal control structure and compliance tests. Sufficient competent evidential matter was gathered to support our conclusions.