OFFICE OF THE CITY AUDITOR
COLORADO SPRINGS, COLORADO

14-03
2013 Southern Delivery System Monitoring Report

February 2014

Office Of The City Auditor
Colorado Springs, Colorado

14-03
2013 SDS Monitoring Report

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Purpose

The Office of the City Auditor (OCA) provides auditing and continuous monitoring of Southern Delivery System (SDS) for compliance with applicable laws, regulations and governmental agreements. The audit period for the report was 2013. 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 most Colorado Springs Utilities policies and procedures 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 2013 audit, we identified four new observations where we believe internal controls could be strengthened. In addition, this report includes a follow-up section on 12 open recommendations from prior SDS audits. Of these, 11 have been fully implemented for SDS, one has been partially implemented and will be followed up on in 2014.

Long-term construction projects are subject to escalation for labor, materials and equipment. Accounting for escalation, the SDS budget is $988 million after all direct project costs are paid through 2021. As of December 31, 2013, the project team was forecasting completion of the project under budget, with a forecast-to-complete of $899 million. Actual total-project spending as of December 31, 2013, is $451 million which includes spending of $134 million in 2013. Spending and other information is made available to the public via SDSwater.org website. The accuracy of this reporting has

(Continued on page 2)

Management Response

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

Recommendations

1. Submittals should be reviewed within the required time and deviations should be noted on review forms. Contractors should not be allowed to proceed beyond mobilization without approval of certain mandatory submittals. These mandatory submittals should be clearly communicated in the contract documents.

2. Ensure that specifications and submittals contain only items which a contractor is expected to comply with. Implement a more effective submittal applicability review process and submittal log.

3. Colorado Springs Utilities' SDS team should be more proactive in holding construction contractors and the Program Management Support Consultant responsible for complying with the contract deliverables (i.e., work plans) and with the requirements listed in the

(Continued on page 2)

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been compared to the financial system with no discrepancies identified.

The financial impact of SDS on the rate payers was reviewed as part of the water rate case, heard by City Council in July 2012. During the third quarter of 2014 the auditors will review an updated Cost of Service Study and Water Revenue Requirement as a follow-up to the 2012 Rate Case Report.

Some of the audit activities during 2013 included:

- Review of various pipeline work packages that have been completed and closed out. This review included invoices, change management, field records, and independent inspections for quality control. Additionally, to ensure the scope of work was completed and that key contractual requirements were met contracts, specifications and submittals were reviewed; improvements were recommended.

- By the end of 2013 the SDS team had procured 99.1% of all construction related work necessary for completion of Phase 1. Project spending in 2014 and 2015 is expected to be higher than previous years. The auditors developed an automated process for reviewing project costs which will be used in the remainder of SDS project monitoring.

- Auditors observed the procurement process and reviewed the contract documents for all major contracts, including the Raw Water Pump Stations.

- Auditors reviewed the Program Management contract including Key Performance Indicators (KPI) used for compensation of the consultant; improvements were recommended.

- Routine monitoring of governance, reporting of costs, funding and land acquisition was completed.

(Recommendations continued from page 1)

specifications. Colorado Springs Utilities should consider if credit is due for not providing conforming materials or workmanship.

4. Documentation of management decisions regarding schedule modifications and adjustments that affect milestone dates should be improved. KPI milestone tasks should be defined and the particular documentation that will satisfactorily document completion of the task improved.

Commendable Practices

During 2013, the SDS project earned three prestigious industry awards.

City Council's Office of the City Auditor
City Hall ◆ 107 North Nevada Avenue ◆ Suite 200 ◆ Mail Code 1542
Colorado Springs CO 80901-1575
Tel 719-385-5991 ◆ Fax 719-385-5699 ◆ Reporting Hotline ◆ 719-385-2387
www.SpringsGov.com/OCA

Office of the City Auditor
Public Report

Date: February 28, 2014

To: President King, President Pro-Tem Bennett, and Members of City Council

Re: 14-03 2013 SDS Monitoring Report

We continued our audit and monitoring of the Southern Delivery System (SDS) for Colorado Springs Utilities during 2013. The purpose of this audit was to provide real-time auditing and continuous monitoring of SDS for compliance with applicable laws, regulations and governmental agreements. Routine monitoring of internal project controls were conducted for effectiveness, efficiency and fraud prevention.

As the focus of this multiyear construction project changes, specific areas of audit are adjusted based upon identified risks. During 2013, current activities such as work package close out, sales tax on direct materials, procurement of the Raw Water Pump Stations and the SDS Program Management contract were reviewed. In addition to the review of current activities, routine monitoring of governance, reporting of costs, funding and land acquisition was completed.

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 most Colorado Springs Utilities policies and procedures 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 2013 audit, we identified four new observations where we believe internal controls could be strengthened.

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

As always, feel free to contact me if you have any questions.

Sincerely,

Denny Nester, MBA, CPA, CIA, CFE, CGFM, CGAP
City Auditor

Cc: Jerry Forte, Chief Executive Officer
Bill Cherrier, Chief Planning and Financial Officer
Carl Cruz, Chief Customer and Corporate Services Officer
John Fredell, General Manager, Southern Delivery System
Gary Bostrom, Chief Water Services Officer
Dave Maier, Manager, Enterprise Risk Management

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2013 SDS Monitoring Report

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REPORT DETAILS

The Southern Delivery System (SDS) is a multiyear 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

The audit period for this report was calendar year 2013. Three previous reports have been issued on the SDS project:

- The 2010 Report covered the period from 2002 – 2010 and was issued November 30, 2011
- The 2011 Report covered 2011 activity and was issued August 23, 2012
- The 2012 Report covered 2012 activity and was issued June 2013

This report will be referred to as the 2013 SDS Monitoring Report. The intent of the OCA is to provide an annual report on SDS until Phase 1 is completed. Phase 1 includes construction of the raw water pipeline from Pueblo Dam, the pump stations, the water treatment plant and some finished water pipelines.

The focus of this multiyear audit changes with the project progression. During 2013, current activities such as work package close out, sales tax on direct materials, procurement of the Raw Water Pump Stations and the SDS Program Management contract were reviewed. In addition to the review of current activities, routine monitoring of governance, reporting of costs, funding and land acquisition were completed. The reviews conducted 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. During 2014, as many of the pipeline work packages are closed out, the audit focus will shift to construction of the facilities for the Water Treatment Plant and Raw Water Pump Stations and the integration of the SDS as a whole into the operations of Colorado Springs Utilities.

The key objectives of the audit were:

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

Each annual report will also include a follow-up section on any previous report recommendations.

The financial impact of SDS on the rate payers was reviewed as part of the water rate case, heard by City Council in July 2012. During third quarter 2014, the auditors will review an updated Cost of Service Study and Water Revenue Requirement as a follow-up to the 2012 Rate Case report.

BACKGROUND

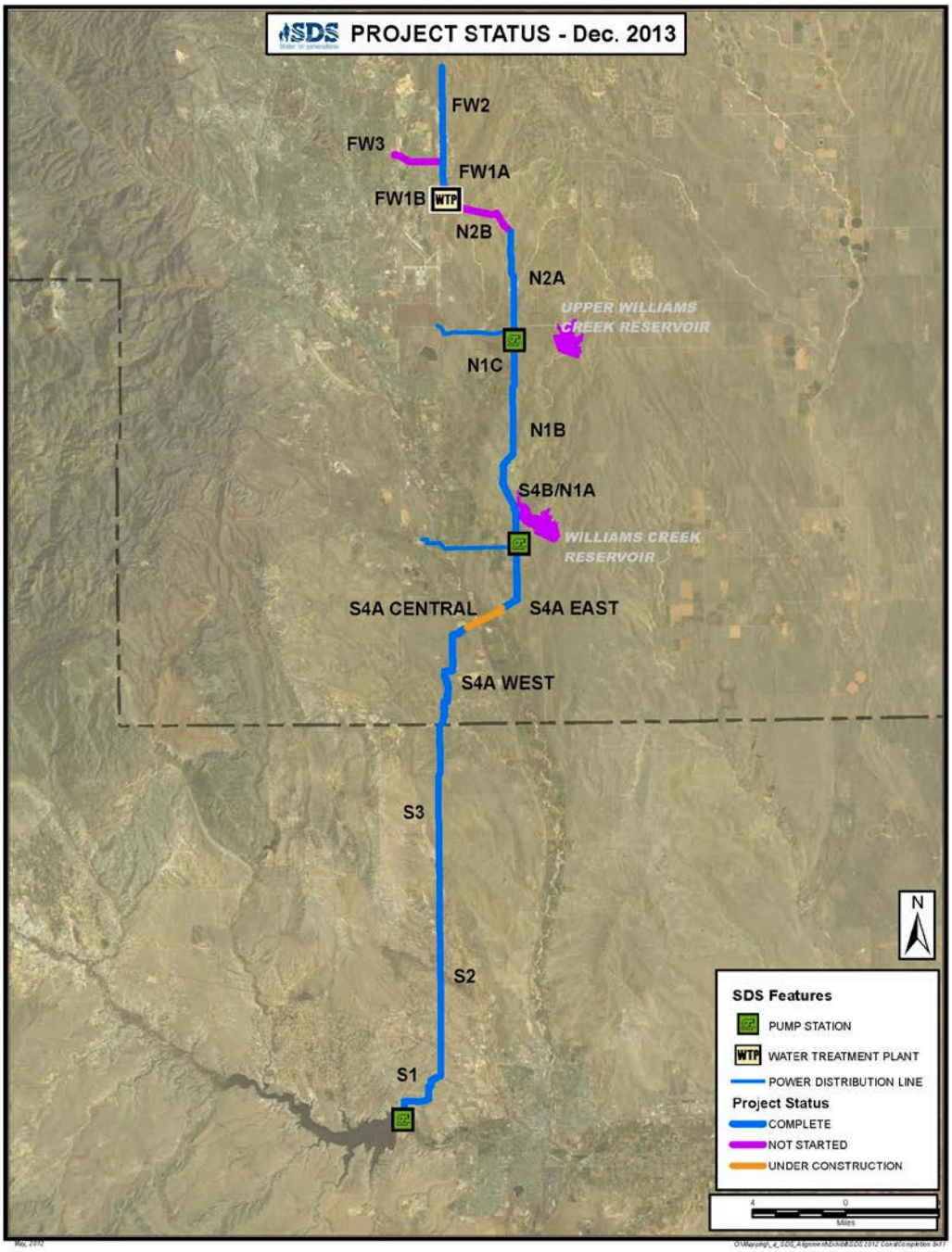
SDS is a multi-phased regional project to bring water from the Arkansas River to the City of Colorado Springs, the City of Fountain, the Security Water District and the Pueblo West Metropolitan District.

This project was formalized in an Intergovernmental agreement that created a governing board known as the Construction Coordination Team (CCT). Colorado Springs Utilities serves as the head of the CCT and as the Project Manager. 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 share. The Colorado Springs Utilities share is approximately 95% of the total project spending.

SDS Project Map

PROJECT ACCOMPLISHMENTS THROUGH 2013

Phase 1 of SDS includes construction of pipeline and 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 50 million gallons per day, and additions to finished water distribution pipelines to supply treated water to current and future utilities customers. Status shown as of December 31, 2013:



From 2002 through December 2013, about $451 million had been spent for Phase 1 of SDS and approximately 50% of the planned construction activities were complete. The following major activities highlight the significant progress made on the SDS project through 2013:

Pueblo Dam North Outlet

- More than 42 miles of pipeline installed to date;
- Nearly all pipeline installed in Pueblo County – with construction beginning on remaining 0.3 miles near Pueblo Dam;
- Completion of the new Pueblo Dam connection;
- Secured additional storage rights in Pueblo Reservoir as well as exchange contracts;
- Significant progress on construction of the new water treatment plant;
- Began construction on three raw-water pump stations;

Water Treatment Plant

- More than 90 percent of land needed has been acquired, including the majority of the parcels required for construction of the Upper Williams Creek Reservoir – an important future component of SDS;
- Crews began excavation on a deep, vertical shaft west of I-25 (south of Pikes Peak Raceway) for tunneling operations under I-25, Fountain Creek and railroad tracks with tunneling activities to begin in early 2014;
- Construction has begun on the Fountain Creek Improvement Project – required SDS mitigation – that will help reduce erosion and sedimentation along a stretch of the creek located on Clear Spring Ranch property; and
- Hosted job fairs in Colorado Springs and Pueblo to encourage SDS contractors to hire local workers.

When complete, SDS will provide a reliable means to deliver more water from Pueblo Reservoir as well as diversifying Colorado Springs Utilities water supply portfolio. Although future phases of SDS include the construction of two SDS reservoirs and expanded capacity of the treatment and pumping facilities, the emphasis now is completion of Phase 1 by 2016 and under budget.

The audit focus for 2013 was the key procurement and construction activities listed above.

PROJECT COST OVERVIEW

In July 2009, the SDS construction budget was established for Phase 1 at $880,000,000, stated in April 2009 dollars. Because long-term construction projects are subject to escalation for labor, materials and equipment, the SDS budget has over time been adjusted to reflect such escalation. The SDS team escalated the budget using standard industry forecasting techniques.

Escalation is no longer a significant factor going forward for construction cost commitments because by the end of 2013 the SDS team had 99.1% of all work necessary for the completion of Phase 1 committed. Construction cost commitments total $433 million which represents about 48% of the total forecast to complete the project. The remaining non-construction costs are for items such as program management, design, permitting, and land acquisition.

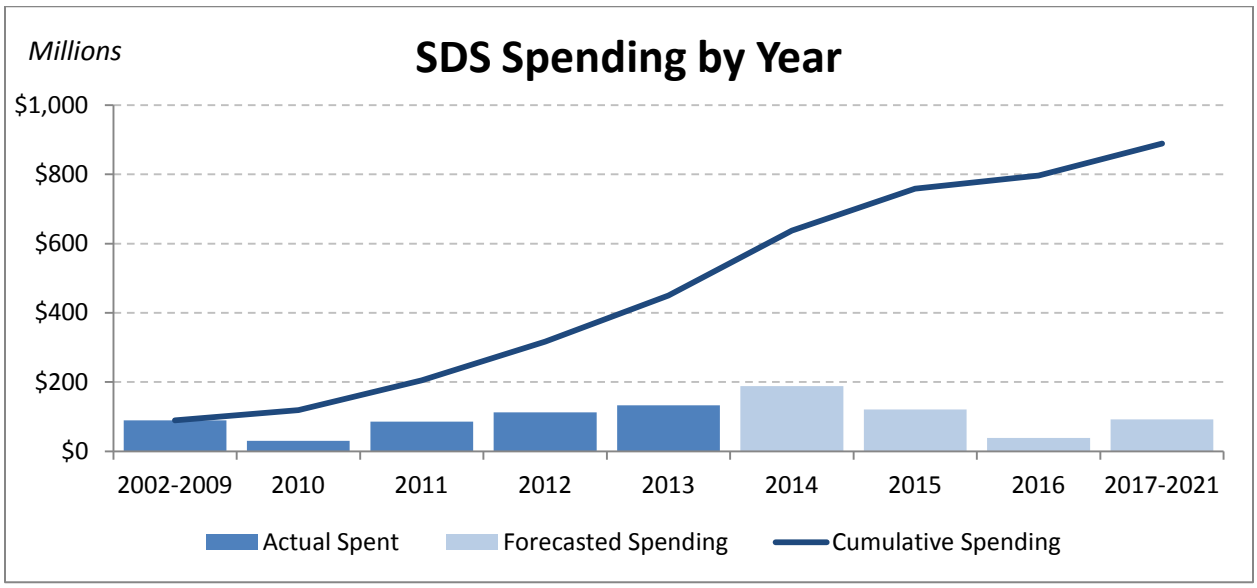
Accounting for escalation, the 2009 Budget equates to $988 million after all direct project costs are paid through 2021.

SDS Program Budget (in millions)	
2009 Budget in April 2009 dollars	$880
+ Actual and Projected Escalation	$108
= 2009 Budget with Escalation	$988
- Projected Savings as of 12/31/13	$89
= Current Escalated Forecast-to-complete	$899

As of December 31, 2013, the project team was forecasting completion approximately $89 million below the escalated budget due to realized and anticipated cost savings identified to date. The most recent escalated cost forecast-to-complete was $899 million.

Actual spending in 2013 totaled $134 million, bringing project to date spending to $451 million. Of the $451 million, $213 million has been spent on construction costs, the remaining used for non-construction program levels costs such as land acquisition, permitting, design, program management.

Spending and other information is made available to the public via the SDSwater.org website. The numbers used in this report were preliminary close reports for 2013. 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 with no discrepancies identified.



COMMENDABLE PRACTICES

During 2013, the SDS project earned three prestigious industry awards.

ENR Mountain States 2013 Best Projects Award

A panel of eight judges from all areas of the industry - architects, general contractors, and engineers - awarded the SDS team the 2013 Best Project Award in Water and Environment by Engineering News Record Mountain States for their work on the South Pipeline 2 project. A significant challenge associated with this project was its proximity to the surrounding residential community. The SDS Project Team designed and implemented a public involvement program for the South Pipeline 2 project that focused on relationship-building with residents of affected areas before, during and after construction.

South Pipeline 2 Project

Pueblo Dam Excavation

2013 Colorado American Public Works Association Award of Project of the Year and Large Structure Award for the Pueblo Dam Connection

The award was based on the innovative design to bring water to a region that does not have a naturally reliable water source for almost 495,000 people and a future population that will grow 1.9% annually.

Environmental Business Journal 2013 Business Achievement Award for Project Merit: Habitat Restoration

Restoration of native vegetation on privately and publicly owned properties affected by construction of the Southern Delivery System pipeline in Pueblo County, Colorado, reached a significant milestone during the 2013 growing season, employing innovative restoration techniques.

FOLLOW-UP ON PRIOR OBSERVATIONS

Prior SDS reports included five recommendations that had not been implemented at the time of publication of the 2012 report. The recommendations and the status of each are shown here:

1. Ensure the schedule for establishing and reviewing the Key Performance Indicators is maintained. Evaluate the effectiveness of using these performance measures in the contract.

   Status: Implemented

2. The contracting process should be modified to help reveal potential conflicts of interest, particularly when an Agency relationship exists.

   Status: Implemented

3. Colorado Springs Utilities should consider adopting audit clause language that is more detailed and specific to a particular contract than the current standard clause.

   Status: Implemented for SDS. Full implementation expected in 2014 and will be followed up as part of the Procurement audit.

4. For the team collaboration site, a site schema document should be used for more efficient review of access by process owners.

   Status: Implemented

5. For the team collaboration site, the errors identified in the user inventory should be corrected and the master list should be accurate, particularly concerning terminated employees.

   Status: Implemented

The 2012 SDS Monitoring Report included seven recommendations that had not been implemented at the time of publication of the report. The recommendations and the status of each are shown here:

1. Colorado Springs Utilities should identify the root cause for the reported contract deviations and consider appropriate corrective action for the underlying causes of these issues.

   Status: Implemented

2. Clear and complete documentation should be generated and retained in the documents of record, especially in situations involving nonstandard contracting and payment arrangements.

   Status: Implemented

3. The change order process should be followed and proper documentation retained when changes to the original contract become necessary. Problems and resolution should be documented as they occur during the procurement process. Colorado Springs Utilities should consider if additional training is warranted to ensure project managers and administrators understand the change order process and proper corrective action when faced with errors.

   Status: Implemented

4. Regarding contract insurance requirements:

   a. Create a Risk Matrix that guides Contracting Agents in selection of appropriate insurance coverage given the perceived risk of a particular contract. This matrix could also be used to provide guidance on appropriate renewal review cycles.

   b. Ensure that insurance requirements and renewal language conform to industry standards.

   c. Validate contractor compliance by verifying that renewals are taking place on contracts that extend beyond the policy termination, if that is a requirement of the contract.

   d. Consider utilizing a management system that allows tracking of contractor insurance certificates.

   Status: Implemented

5. The standard SDS document control procedures should be adopted and followed by all SDS project teams.

   Status: Implemented

6. Changes that meet the criteria of requiring Change Committee approval should be documented and approved by SDS management before they are communicated to third parties under contract.

   Status: Implemented

7. Regarding the Governance, Risk and Compliance application, Colorado Springs Utilities should obtain input from participants involved in this project for use when considering future software projects. We also recommend an evaluation of all of the costs incurred to date in the development of the GRC system. Costs to consider include all capital and expense charges, including labor for internal resources and external vendors. This information should be considered during the evaluation of extending this application to additional user groups.

   Status: Partially Implemented

In addition to these seven observations, there were four observations for which recommendations were already implemented in 2012 and two opportunities for improvement.

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 most Colorado Springs Utilities policies and procedures 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 2013 audit, we identified four new observations where we believe internal controls could be strengthened. These areas are discussed on the pages that follow.

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

OBSERVATIONS, RECOMMENDATIONS AND RESPONSES

Observations 1, 2 and 3 relate to submittals and were identified during a review of SDS specifications and the corresponding submittals. Due to the technical nature of submittals, we have provided the following information. Submittals in construction can be explained as follows:

> *Submittals in Construction Management are shop drawings, material data, samples, and/or product data. In some cases submittals include the process used to install the materials. The construction documents, specifically the technical specifications, require the contractor to provide specific submittals.*
>
> *An "approved" submittal authorizes quantity and quality of a material or an assembly to be released for shipment and/or fabrication. Submittals are required primarily for the architect and engineer to verify that the correct products and quantities will be installed on the project.*
>
> *The contractor uses the "approved" submittal as a guideline for installation of materials on the job. Approved submittals help to ensure that materials or processes have been properly vetted before final ordering or installation. In essence, this is the final quality control mechanism before a product arrives on-site or is installed.*

OBSERVATION 1 – TRENDS EXISTED IN ALLOWING CONSTRUCTION ACTIVITIES TO COMMENCE BEFORE FULLY APPROVING SUBMITTALS

During our examination of the specifications for one pipeline work package, certain key submittals were tested for appropriate approval and acceptance prior to construction activities. Although some of the key submittals examined were partially reviewed by the SDS team prior to construction commencing, our examination showed that construction began without final review and approval of these submittals.

Additionally, the SDS team is obligated to review submittals in a timely manner. The specification denotes that submittals will be reviewed within 15 days under most circumstances. During the examination of submittal reviews by SDS staff, a trend was observed where submittals were not reviewed within the prescribed time.

Examples of key submittals that should be reviewed and approved prior to the construction contractor proceeding include the submittal schedule, safety plan and the contractor's quality control plan. Plans like these span the entire construction of a project. They aid project managers and engineers in understanding and managing the execution of construction. One key submittal required by the contract was a submittal schedule. This schedule was intended to create a to-do list that the contractor would follow for the remaining submittals. No submittal schedule was created for this project. Because these overarching submittals span the life of the project and provide the project team with information relative to the execution of construction, the auditor deemed these submittals important to the performance of construction activities.

There are times when a contractor will proceed "at-risk", meaning work will be performed at the contractor's risk before submittals are approved; however, key submittals should require review and approval before the contractor proceeds with construction.

AUDITOR'S RECOMMENDATION

The Office of the City Auditor recommends the following:

- Colorado Springs Utilities' SDS staff and contractors review submittals as required by the specifications in the allotted time. Deviations from the required time frame should be noted on the review forms.
- Contractors not be allowed to proceed beyond mobilization without approval of certain mandatory submittals. These mandatory submittals should be clearly communicated in the contract documents.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with the observation and recommendations provided.

The SDS project specifications require that submittals be reviewed within 15 days. The pipeline package reviewed in this audit included 235 submittals with an average submittal review cycle time of 14 days. In spite of the average review time being less than 15 days, full approval often took longer than 15 days to achieve.

Effective September 1, 2013, the SDS team will report specific reasons in Primavera Contract Manager for any deviations beyond a 15-day submittal review cycle.

Specification section 01 71 13 (Mobilization) of the standard SDS raw water pipeline contract documents will be modified for the next SDS pipeline construction package to identify the mandatory submittals required beyond mobilization.

OBSERVATION 2 – RAW WATER PIPELINE SPECIFICATIONS CONTAINED SOME NON-APPLICABLE REFERENCES AND POTENTIALLY CONFLICTING INFORMATION

Although the project team believes the contractor delivered a quality project that meets its intended use, the specifications contained non-applicable and conflicting requirements. An example of the non-applicable components included hand railings that were not part of the final design. Conflicting requirements included wording regarding inspections that contradicted one part of the specifications with another.

Specifications are contract documents consisting of written requirements for materials, equipment, systems, workmanship and performance of the project. The specifications also identify what submittals are required of the contractor. Because specifications are part of the contract, the requirements listed should be followed by the contractor as if they were part of the agreement.

Well-written specifications are essential to the efficient construction of a successful project. Only items intended to be included in the project should be included in the specifications. Extraneous, non-applicable information should not be included because contractors in a bidding environment may not know what was actually required to complete the job.

During the review of key sections of the specifications the following were noted:

- Non-applicable components (i.e. hand railings) were approved during the review process, after they had been eliminated from the design.
- Contractors were asked to bid on work using specifications that contained extraneous non-applicable requirements.
- The reconciliation of the submittal process was inefficient. Some applicable submittals were not prepared until after construction was complete. Others, which were determined non-applicable post construction, were finalized during the close out process after construction was complete.
- There are instances where the SDS team did not ensure that the submittals met the requirements listed in the specifications.

AUDITOR'S RECOMMENDATION

The Office of the City Auditor recommends:

- Colorado Springs Utilities' SDS team ensures that specifications and submittals contain only items which a contractor is expected to comply with.
- Implement a more effective submittal applicability review process and submittal log.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with the observation and recommendations provided.

The raw water pipeline specifications include 490 pages of technical requirements in 69 sections and while much effort is placed on ensuring specific applicability, not every pipeline installation requires every single feature included in an engineer's standard specifications.

Colorado Springs Utilities will review the specifications for the remaining raw water pipeline contract to identify specifications and submittal requirements that Utilities believes could introduce confusion during bidding.

Additionally, effective August 1, 2013, the SDS Team implemented a modification to close out processes to ensure that non-applicable submittal items are removed from the submittal log to avoid confusion.

OBSERVATION 3 - CONTRACTOR WAS NOT PROACTIVELY HELD ACCOUNTABLE FOR COMPLYING WITH CERTAIN SPECIFICATIONS AND WORK PLANS

The raw water pipeline specifications utilized by the SDS team required the contractor to prepare and submit a Contractor's Quality Control Plan (CQC). The purpose of the CQC plan is to organize, coordinate and verify that the project specifications were followed. This plan helps ensure the quality of the work is held to the highest level.

The plan specified that daily inspections would be performed and that a particular form would be completed for each inspection. The daily inspection reports were not completed as required, making it difficult to determine if the contractor fulfilled their obligations.

For one work package, several instances were noted where workmanship or materials deviated from the specifications. The Program Manager did not proactively hold the contractor accountable for complying with the contract deliverables and with the requirements listed in the specifications. Documentation demonstrating that Colorado Springs Utilities received consideration for these deviations was not readily available.

AUDITOR'S RECOMMENDATION

The Office of the City Auditor recommends:

- Colorado Springs Utilities' SDS team be more proactive in holding construction contractors and the Program Management Support Consultant responsible for complying with the contract deliverables (i.e. work plans) and with the requirements listed in the specifications.
- Colorado Springs Utilities consider if credit is due for not providing conforming materials or workmanship.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with the observation and recommendations provided.

The SDS Management Team has taken steps to reiterate the importance of being more proactive managing SDS construction efforts and fully expects that no work be performed without fully approved submittals and thorough quality control measures in place.

None of the deviations accepted during the course of construction impair the integrity and performance of the pipeline facilities and the engineer of record has formally approved or accepted all changes.

Colorado Springs Utilities has reviewed the potential for credits with the accepted variances and has negotiated and documented equitable adjustments and extended warranties where appropriate to address variances from the specifications introduced during the construction process.

OBSERVATION 4 – DOCUMENTATION VALIDATING ACHIEVEMENT OF MILESTONE DATES WAS INCOMPLETE

The program management consultant contract allowed for performance based compensation. Our review of milestone dates, which was one of four metrics used to evaluate performance compensation paid, identified incomplete documentation to validate achievement of milestone dates. While our review noted areas where improvements could be made, we concluded that the consultant was correctly compensated. The recommendations noted below were implemented during the course of our review.

The program management contract specified a payment structure made up of base rates plus a base fee for services, with an opportunity for the consultant to earn additional performance based compensation for exceeding standard expectations. This at-risk performance compensation was calculated at the end of each performance period, generally a calendar quarter, and was based upon Colorado Springs Utilities' management evaluation of Key Performance Indicators (KPIs). During our interviews with the SDS leadership team, they indicated the use of performance based compensation was highly effective in focusing the team.

The KPIs include evaluation of four key metrics – safety, earned value, a qualitative assessment of execution competence and achievement of milestone dates. Our audit focus was on earned value and milestone dates. Our review found no exceptions to the earned value calculation. KPI milestone dates were set in advance and tailored to the planned significant milestones of the period for which evaluation occurred.

The purpose of the review of milestone dates was to validate the consultant had provided supporting documentation sufficient to prove they completed the required task and the task was performed by the target date. Because milestone dates used for the at-risk performance compensation were derived from the construction schedule for the SDS project, changes to construction dates also impacted the milestone dates used for KPI evaluations.

Expecting that schedule changes were inevitable and sometimes desirable for the project, the SDS leadership team allowed for flexibility in KPI milestone dates. As long as KPI dates were formally modified using the change control process, they were allowed and the revised date was used to measure achievement. Milestone date changes were referred to as Trends by the SDS team. The impact of those Trends as they relate to KPI milestone dates was also evaluated for appropriateness during our review.

A total of 47 milestone dates for KPI periods 4, 6, 8, 10 and 11 spanning May 28, 2011 through June 30, 2013 were selected for review. Of these, 42 dates were attained and the consultant was compensated for achieving their targets. For the remaining five dates, management exercised discretion in the evaluation of successful performance and agreement was reached between SDS management and the

consultant. As noted below, our recommendations include improvements to documentation of such management decisions.

Out of the 42 milestone dates where the consultant was compensated for achieving target dates, 15 were adjusted via the change control process after the original target date had passed. In these instances, management exercised discretion and allowed the consultant to receive credit for achieving the new target date. The management team acknowledged there were instances when they were aware of pending schedule changes. However, relevant management discussions regarding these issues were not documented in relation to the KPI milestone dates. To provide accountability for the performance payment, documentation of management decisions needs to be improved. Of the noted 15 exceptions above, two instances occurring in KPI period 11 showed improvement by management documenting discussions where KPI milestone dates were modified or adjusted due to construction constraints, but not as a result of the consultant's performance.

The program management consultant was required to provide supporting documentation sufficient to assist Colorado Springs Utilities' evaluation of milestone date achievement. However, the particular document that would meet this requirement was not specified in advance. For a given task, there could be a variety of different documents prepared to indicate the task had been completed. For example, if the task was stated as "100% Engineering Design Complete," that could be represented by an engineering design submittal, a project manager's certification, or the minutes of a review meeting during which the design was accepted. Each of these documents could have different dates. Our review showed that because the precise document required to meet the goal was not specified, it was difficult to validate if the milestone date was attained in a timely manner.

Our review noted 12 instances where the documentation provided by the consultant did not clearly substantiate achievement of a milestone date. The SDS team indicated during interviews that compensation was awarded because each of those tasks, while documentation was not consistent, demonstrated accomplishment of the task. Beginning with KPI period 13, management had defined the particular document required to substantiate performance.

AUDITOR'S RECOMMENDATION

The Office of the City Auditor recommends the Colorado Springs Utilities SDS team:

- Improve documentation of management decisions regarding schedule modifications and adjustments that affect milestone dates.
- Improve the definition of each KPI milestone task and the particular documentation that will satisfactorily document completion of the task.

COLORADO SPRINGS UTILITIES RESPONSE

Colorado Springs Utilities agrees with the observation and recommendations provided.

Identifying Key Milestones provides a means of highlighting activities to maintain team focus and ensure SDS facilities are in service no later than April 2016. Intermediate milestones are periodically adjusted by SDS Leadership recognizing opportunities to reduce risks, bring additional value to Colorado Springs Utilities or respond to unforeseen events while maintaining an April 2016 completion date. Improved documentation of Colorado Springs Utilities' decisions modifying KPI-related milestones was implemented in KPI Period 12 for both Trend and quarterly KPI evaluation processes.

More specific definitions of criteria used in evaluating satisfactory completion of KPI-related tasks were introduced during KPI Period 13 in order to prevent misunderstanding or inconsistent interpretation of expectations by team members, contractors, and consultants.

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.

City Hall ◆ 107 North Nevada Avenue ◆ Suite 200 ◆ Mail Code 1542
Colorado Springs CO 80901-1575
Tel 719-385-5991 ◆ Fax 719-385-5699 ◆ Reporting Hotline ◆ 719-385-2387
www.SpringsGov.com/OCA