

SOUTHERN DELIVERY SYSTEM

MONTHLY REPORT



The Southern Delivery System (SDS) is a regional project to bring water from the Arkansas River to Colorado Springs, the City of Fountain, the Security Water District, and the Pueblo West Metropolitan District. Phase 1 of this multi-phase project includes all of the components necessary to begin delivering water to the partner communities by 2016. This report summarizes accomplishments from the start of construction through July 2015, plans for August 2015, and key performance details for Phase 1.

Water Treatment Plant & Finished Water Pump Station



Aerial of water treatment plant progress

Accomplishments: Completed filling the 7-million-gallon finished water storage tank for testing, continued testing mechanical piping systems and chemical storage tanks, finished drywall installation in upper level of control room, completed installation of the supervisory control and data acquisition (SCADA) control console (control of remote equipment), and energized (turn on power to) the electrical building at the finished water pump station; approximately 87 percent of construction is complete through July at the water treatment plant.

Upcoming: Complete testing of finished water tank and backfill, begin testing activities on heating, ventilating, and air conditioning (HVAC) equipment, continue painting door frames and doors throughout the main process building, and anticipate arrival of equipment vendors over the next two months for equipment startup and training.

Raw Water Pump Stations

Accomplishments: Completed testing 66-inch diameter discharge pipe, finished installation of brick veneer, and successfully completed performance testing of all four pumps at Juniper Pump Station; energized electrical equipment and continued installation of exterior metal wall panels at Williams Creek Pump Station; and completed forebay tank (regulates fluctuation of water) testing and continued installation of electrical equipment at Bradley Pump Station; approximately 91 percent of construction is complete through July for all three pump stations.

Upcoming: Complete testing of surge tank and continue brick washing and painting of the vaults and pump station for Juniper Pump Station; continue installation of exterior metal wall panels, control room console, and conduit and wire for light fixtures at Williams Creek Pump Station; and complete pump performance testing and installation of sidewalks at Bradley Pump Station.



Williams Creek Pump Station

Commissioning & Startup

The SDS team completed filling the south and central sections of the pipeline in July, approximately 80 percent of the total pipe volume, to commence testing of the pipeline and raw water pump stations. Beginning at Pueblo Reservoir, the valve sending water into the SDS was turned on and water began flowing into the pipeline, first reaching Juniper Pump Station where the pumps, motors, and valves were operated. As the equipment was operating, water was pushed into the central section of the pipeline between Juniper and Williams Creek pump stations. At the end of July, the Juniper Pump Station pump performance testing was completed meeting all factory performance levels. In August, the Williams Creek and Bradley pump stations will be tested for operability.



Juniper Pump Station pump performance testing



Juniper Pump Station pump performance testing

SPOTLIGHT

SDS Supplies Pueblo West Water During Emergency

The SDS project passed an important test in July and proved its value as a regional project. SDS came to the aid of the Pueblo West Metropolitan District when the project partner discovered a break in the main water line that delivers water to its 11,000 households and businesses. Pueblo West’s water line – 24 inches in diameter and built in the 1980s – runs under the Arkansas River. It is connected to an opening in Pueblo Reservoir known as the “South Outlet Works.” Fortunately, when the leak in the pipe was discovered on July 15, Pueblo West’s new 36-inch pipeline and the new North Outlet Works – both constructed in association with SDS – were complete and in operable condition. The new outlet works and pipe was envisioned as the primary way for Pueblo West to get its water from the dam, but the new pipeline had not yet been operated.

On July 15, as Pueblo West worked hard to repair the leaking pipe, its staff turned on its new 36-inch valve on the North Outlet Works to send water to the Pueblo West pump station, the water treatment plant, and then to customers. The temporary use of the pipeline required approval and cooperation from Pueblo County, Pueblo West Metropolitan District, Pueblo Board of Water Works, Colorado Springs Utilities, and the Bureau of Reclamation. “I am very pleased we were able to assist our project partner, Pueblo West, to continue uninterrupted water delivery to their customers,” said SDS Program Director John Fredell. “One of the great benefits of SDS for Pueblo West and the other project partners is the added reliability it brings to all our water systems. It provides all of us another way to get water from Pueblo Dam to our communities and we are so pleased it benefitted Pueblo West during this emergency situation this summer.”



Pueblo County Commissioner Terry Hart was quoted in the Pueblo Chieftain stating, "This emergency project demonstrates the wisdom of Pueblo West government planners to put in a redundant water delivery system for their community. ...And I want to thank Colorado Springs Utilities and the Bureau of Reclamation for their willingness to step up to the plate and make this happen quickly."

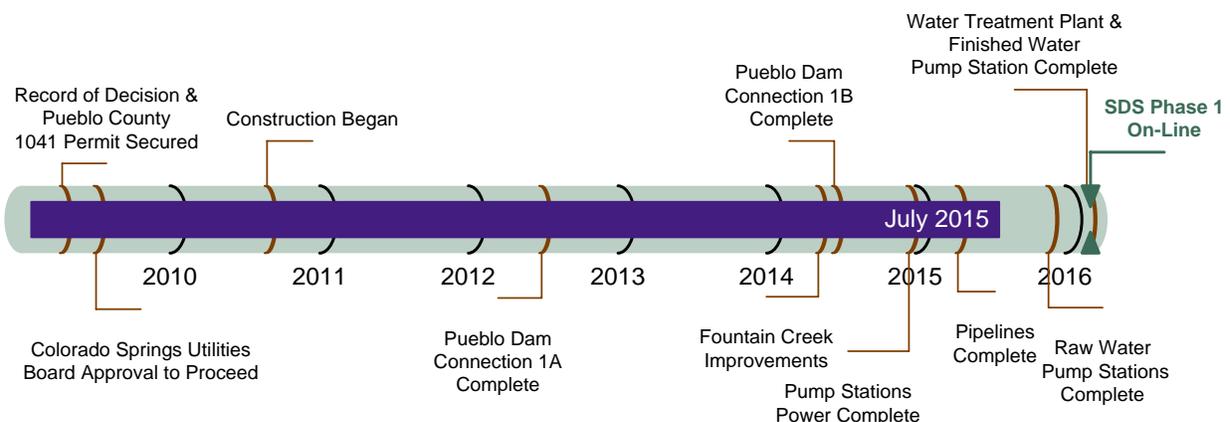
The water flowed temporarily until the pipe was successfully repaired on July 21. SDS will begin commercial operation early 2016.



Schedule Summary

The timeline below summarizes the schedule for completing Phase 1 of the SDS. Colorado Springs Utilities anticipates completing Phase 1 as planned, with full operation beginning by 2016.

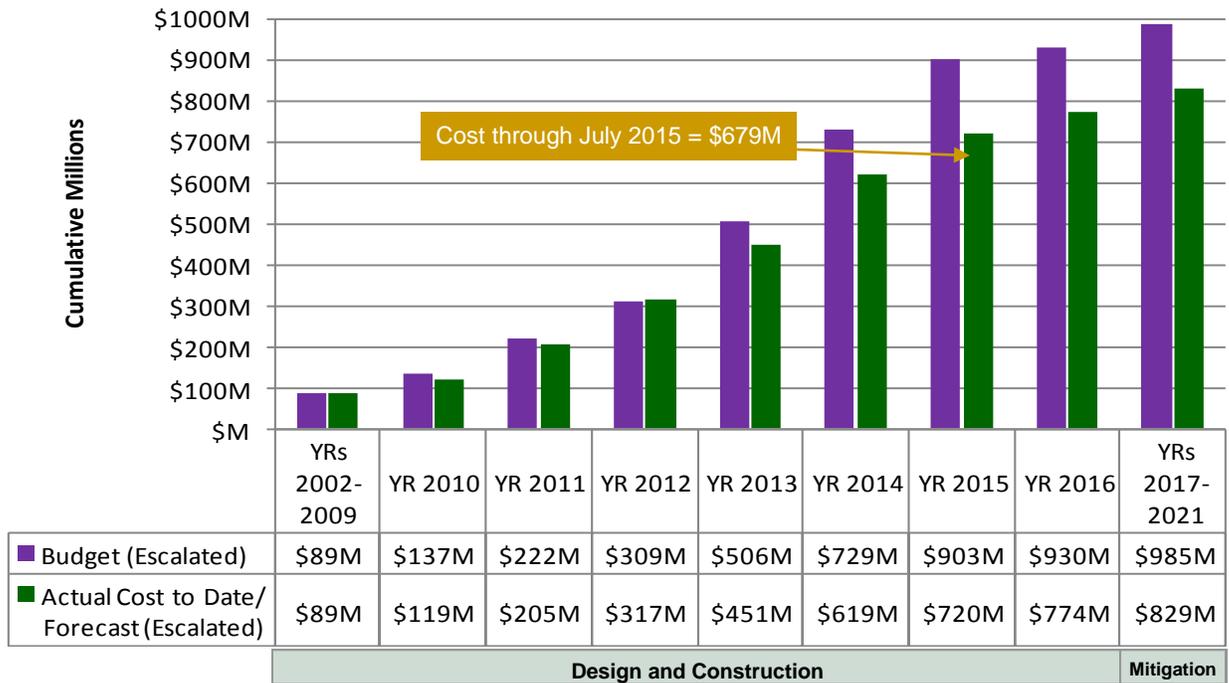
Figure 1 – Schedule Progress for Major SDS Phase 1 Projects



Cost Summary

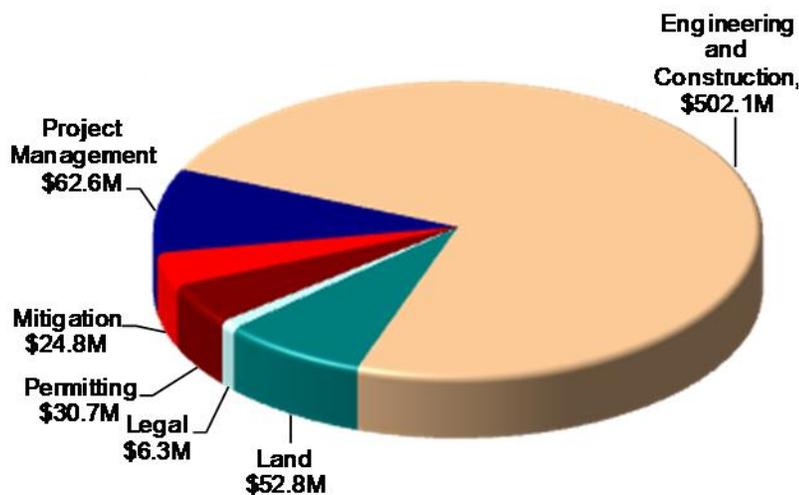
Figure 2 shows the budget for Phase 1, actual costs through July 2015, and forecasted costs for Phase 1. **Figure 3** shows the distribution of the actual costs. Key financial details are summarized below. The budget used to measure progress was established by the Colorado Springs Utilities Board in July 2009 and is \$880 million in April 2009 dollars. Accounting for actual and currently projected escalation in the cost of labor, materials, and equipment, the same 2009 budget equates to \$985 million after all direct project costs (including mitigation) are paid through 2021.

Figure 2 – Phase 1 Budget Progress – Actual Costs through July 2015



Design and construction \$ values include actual and projected cost escalation as measured by Engineering News-Record's national Construction Cost Index. Monetary mitigation payment \$ values (2017 through 2021) include cost escalation as measured by the U.S. Bureau of Labor Statistics Producer Price Index for finished goods. Periodic index forecasts by IHS Global Insight applied.

Figure 3 – Distribution of Phase 1 Direct Costs through July 2015 (\$679M Total)



Key Financial Details

- The budget for Phase 1 is \$985 million, including actual and projected escalation, while the current cost forecast is \$829 million. The project is currently forecasting completion approximately \$156 million below budget. These anticipated savings are accounted for in current water rates and plans for bond issuance.
- Cumulative actual costs to date are \$679 million, with a majority expended on engineering and construction, permitting, land, and management activities.
- Forecasted costs for 2015 are \$101 million with a cumulative expenditure of \$720 million by the end of 2015.

Figure 4 – Phase 1 Projects Status Map



- 9 Finished Water Pipeline (FW)**
Complete: FW1A, FW1B, FW3 (Garney Construction)
Focus: Maintenance
- 8 SDS Water Treatment Plant (WTP) and Finished Water Pump Station (FWPS)**
Ongoing: McCarthy Building Companies, Inc. is constructing the WTP and FWPS located at Marksheffel Rd. and U.S. Highway 24.
Focus: Filling finished water storage tank, installing electrical equipment, installing drywall, and testing systems
- 7 North Pipeline (N)**
Complete: S4B/N1A/N1B (HCP Constructors), N1C/N2A (Layne Heavy Civil, Inc.)
Ongoing: Garney Construction is finalizing closeout of N2B – a 3.2 - mile pipeline connecting N2A to the WTP.
Focus: Completing administrative closeout activities
- 6 Upper Williams Creek Reservoir (UWCR)**
Ongoing: UWCR is a 30,500 acre-foot raw water storage reservoir that will be developed as part of a future SDS phase and will be located near Bradley Pump Station.
Focus: Acquiring remaining land parcels; conceptual engineering
- 5 Bradley Pump Station (BPS)**
Ongoing: Archer Western Construction, LLC is constructing BPS located in the city of Colorado Springs approximately ¼ mile south of Bradley Rd. and 1.5 miles east of Marksheffel Rd.
Focus: Installing large gauge conductors, completing floor in communications room, and preparing for pump performance testing
- 4 Williams Creek Pump Station (WCPS)**
Ongoing: Archer Western Construction, LLC is constructing WCPS located in El Paso County 6 miles south of Squirrel Creek Rd. and 5 miles east of Interstate 25.
Focus: Continuing installation of conduit and preparing for pump performance testing
- 3 South Pipeline (S)**
Complete: S1 (HCP Constructors), S2 (Garney Construction), S3 (Layne Heavy Civil, Inc.), S4A East/West (Garney Construction)
Ongoing: Garney Construction is constructing S4A Central – a 1.4 - mile pipeline that tunnels under Interstate 25, two railroads, and Fountain Creek and extends from west of Interstate 25 to east Hanover Rd.
Focus: Completing administrative closeout activities
- 2 Juniper Pump Station (JPS)**
Ongoing: Archer Western Construction, LLC is constructing JPS located in Lake Pueblo State Park near the base of Pueblo Dam.
Focus: Conducting pump performance testing and installing brick veneer and control systems
- 1 Pueblo Dam Connection (PDC)**
Complete: PDC1A (ASI Constructors)
Ongoing: Garney Construction is finalizing closeout of PDC1B – a 0.3-mile pipeline that connects the new outlet works (PDC1A) at Pueblo Dam to JPS and the Pueblo West Pump Station.
Focus: Completing administrative closeout activities

Visit www.SDSwater.org for additional information.