

SOUTHERN DELIVERY SYSTEM

MONTHLY REPORT



The Southern Delivery System (SDS) is a regional project to bring water from Pueblo Reservoir on the Arkansas River to Colorado Springs, the City of Fountain, Security Water District, and 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 April 2016. This report summarizes accomplishments from the start of construction through October 2015, plans for November 2015, and key performance details for Phase 1.

Water Treatment Plant & Finished Water Pump Station



Masonry block sealing at main entrance of water treatment plant

Accomplishments: Continued testing water, pumping it through the plant, and initiated discharges into East Fork Sand Creek through the temporary discharge structure; began installation of landscape irrigation system; preparing to complete connection of water treatment plant sewer into Colorado Springs Utilities’ sewer system on the west side of Highway 24; continued painting and sealing external doors and fittings prior to cold weather; advanced heating, ventilating, and air conditioning (HVAC) testing and balancing; and continued chemical deliveries and commissioning and startup activities to facilitate testing of treatment process and control systems. **Upcoming:** Continue running plant at various flow rates to bring additional systems online for automation, complete process mechanical piping systems, finish non-process systems such as heating water and natural gas lines, continue installation of permanent and emergency lighting, complete installation of landscape irrigation system, and progress final grading, seeding, and tree planting.

Raw Water Pump Stations

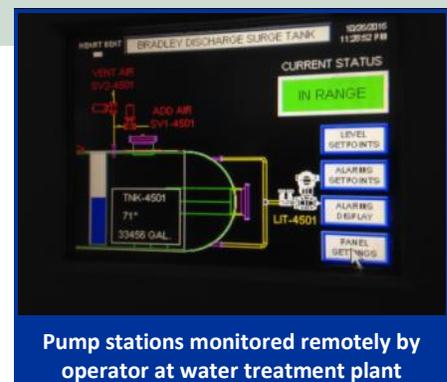
Accomplishments: Continued installation of conduit and wire for HVAC equipment and lighting, completed installation of shaft storage racks, and began placement of topsoil on finished grades at Juniper Pump Station; completed placement of material for roadways, completed flow meter vault (measures flow rate of water) interior electrical work, and continued installation of exterior metal wall panels at Williams Creek Pump Station; and completed communication wiring, continued installation of fire alarm and security system, and finished placement of material for access road at Bradley Pump Station. **Upcoming:** Install Juniper Road base in preparation for paving, continue installation of permanent security fence, and begin installation of lights in pump room at Juniper Pump Station; complete installation of exterior metal wall panels, begin installation of CCTV cameras, and complete sidewalk on south side of pump station at Williams Creek Pump Station; and complete installation of underground conduit for site lighting, continue final grading activities, and complete final configuration and testing for control system at Bradley Pump Station.



Williams Creek Pump Station

Commissioning & Startup

In October, the SDS team successfully completed system surge testing of the three raw water pump stations. The system pressures were monitored at each of the pump station surge tanks and along the pipeline using pressure data loggers. Two locations were monitored from Williams Creek to Bradley Pump Station, and three locations were monitored from Bradley Pump Station to the SDS Water Treatment Plant. Also in October, four equipment training sessions were completed. Each facility contract requires that any equipment with an operation and maintenance (O&M) manual must have training provided by the equipment manufacturer. Training was provided to several groups within Colorado Springs Utilities, including Water Treatment, Water Distribution, Water Instrument and Controls, and Planner Analysts.



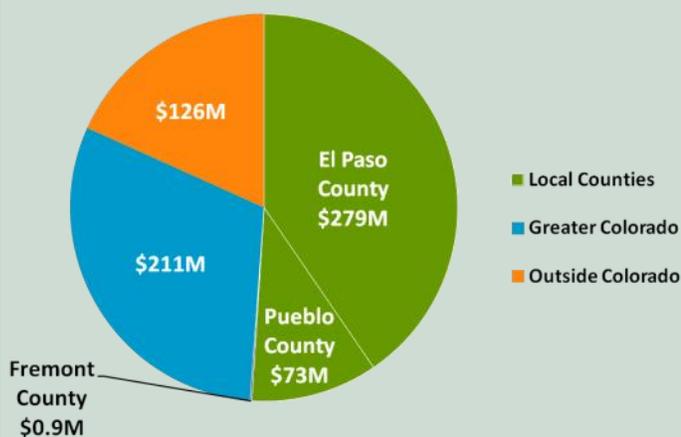
Pump stations monitored remotely by operator at water treatment plant

SPOTLIGHT

SDS Local Spending and Business Involvement through September 2015

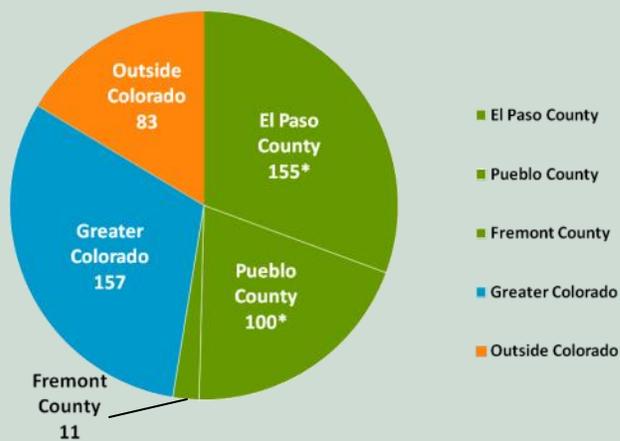
The charts below summarize some of the economic benefits of SDS to the region. Of the \$690 million spent through September 2015, \$564 million benefitted Colorado and \$353 million benefitted the counties of Pueblo, El Paso, and Fremont. An additional \$211 million benefitted other counties within Colorado. To date, approximately 506 businesses and organizations have supported work on SDS, with 266 coming from the counties of Pueblo, El Paso, and Fremont and 157 coming from other counties within Colorado. Of those, about 40 businesses and organizations are active in multiple locations that primarily benefit Pueblo and El Paso counties.

Distribution of SDS Expenditures



[Link to Local Businesses Supporting SDS](#)

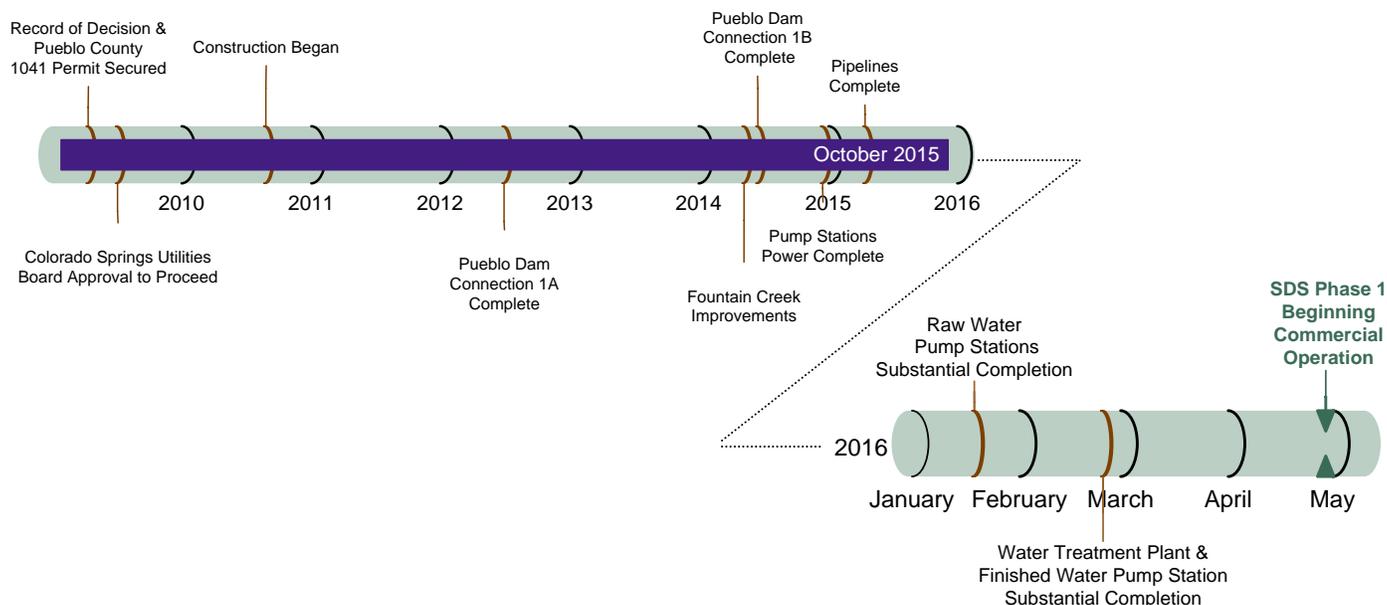
Distribution of Businesses/Organizations Supporting SDS



*Pueblo/El Paso County & Other Businesses Operating in Multiple Locations

Schedule Summary

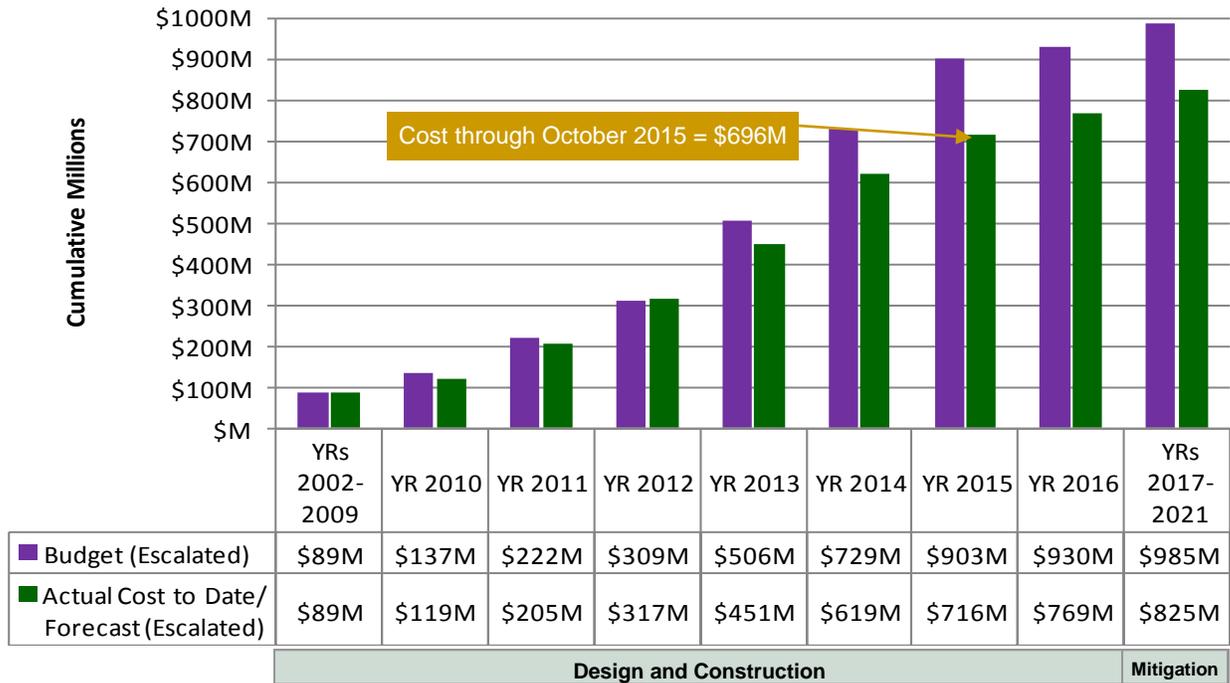
The timeline below summarizes the schedule for completing Phase 1 of the SDS. Colorado Springs Utilities anticipates completing Phase 1 as planned, with full operation in April 2016.



Cost Summary

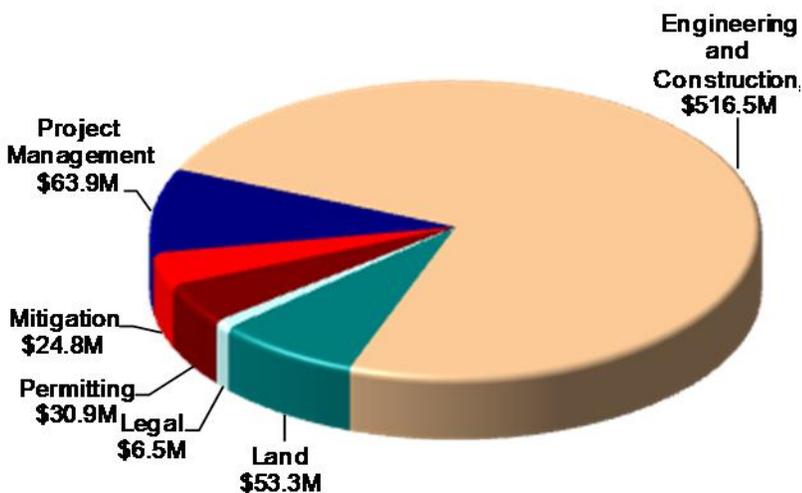
Figure 1 shows the budget for Phase 1, actual costs through October 2015, and forecasted costs for Phase 1. **Figure 2** shows the distribution of the actual costs. Key financial details are summarized below. The budget used to measure progress was established by the Colorado Springs Utilities Board 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 1 – Phase 1 Budget Progress – Actual Costs through October 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 2 – Distribution of Phase 1 Direct Costs through October 2015 (\$696M Total)



Key Financial Details

- The budget for Phase 1 is \$985 million, including actual and projected escalation, while the current cost forecast is \$825 million. The project is currently forecasting completion approximately \$160 million below budget. These anticipated savings are reflected in current water rates and plans for bond issuance.
- Cumulative actual costs to date are \$696 million, with a majority expended on engineering and construction, permitting, land, and management activities.
- Forecasted costs for 2015 are \$97 million with a cumulative expenditure of \$716 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: Continuing flows through plant for testing, installing and testing electrical and control systems, placing landscape materials, and sealing exterior masonry walls
- 7 North Pipeline (N)**
Complete: S4B/N1A/N1B (HCP Constructors), N1C/N2A (Layne Heavy Civil, Inc.), N2B (Garney Construction)
Focus: Maintenance
- 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 SDS Phase 2 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 protection systems, light pole bases, corrosion protection test stations, and completing controls systems
- 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: Installing conduit and wires for HVAC and lighting, placing landscape materials, placing concrete for entrance, and completing controls systems
- 3 South Pipeline (S)**
Complete: S1 (HCP Constructors), S2 (Garney Construction), S3 (Layne Heavy Civil, Inc.), S4A East/West and S4A Central (Garney Construction)
Focus: Maintenance
- 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: Installing metal downspouts, continuing grading activities, placing concrete for entrance, and completing controls 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: Performing final testing and inspections and completing administrative closeout activities

Visit www.SDSwater.org for additional information.