

Projects United States Projects

Prairie Waters

Conveyance system design

\$160M • 50 • \$25M •

Construction Cost

MGD Capacity

Saved

Aurora, Colorado

Helping to secure a resilient water supply for the City of Aurora



Prairie Waters is an innovative system that uses a sustainable water source by recapturing river water to provide drought insurance and a cornerstone of a water supply plan that will help meet much of the City of Aurora's needs for decades. It was undertaken following significant drought conditions that the city of Aurora experienced, beginning in 2000. The water reserves available to the city became minimal and were not enough to serve the growing population.

Stantec was responsible for planning, preliminary design, final design, services during construction, PLC programming, startup and commissioning, and warranty support for the \$160 million, 50 MGD raw water conveyance system portion of the project. This included 34 miles of 60- to 79-inch diameter pipelines, three 6,000 HP pumping stations, and 15 trenchless crossings with casing diameters up to 84 inches. The pipeline is mortar-lined and polyurethane-coated steel pipe with an impressed cathodic protection system.

At a Glance

Offices

Denver (Broadway),
CO

Client

City of Aurora

Award

APWA Project of the
Year, 2011

gation ditches, wetlands, and the South Platte River. Our experts navigated significant subsurface variations, including claystone, siltstone, sandstone, clay, and alluvial sands and gravels. Due to high groundwater conditions, significant dewatering was required at trenchless crossings and along much of the overall pipeline. We also performed hydraulic and surge analyses and design for system protection from both controlled and uncontrolled shutdowns.

As part of this project, we implemented ActiveManuals as an electronic operation and maintenance manual for the four divisions of the City's water operations group. This provides Aurora Water with a system-wide, database-driven electronic solution that is user-friendly and easily updated.

Services

Trenchless

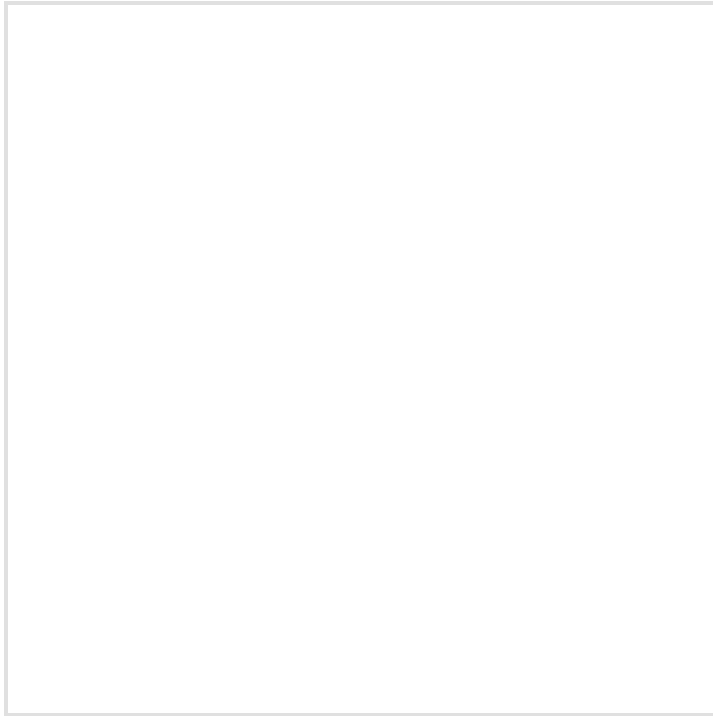
Water Services

Markets

Conveyance

Water

Meet Our Team



The greatest satisfaction in my career is delivering major water infrastructure projects and see—firsthand—the benefit that it brings to the public.

Russ Snow

Vice President, Conveyance Sector Leader

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