



CASE STUDY

WISE Pump Station | Parker, Colorado

BILCO Delivers Multiple Products For Colorado Pump Station

Water-starved Colorado needs to maximize use of the precious resource, and a recently completed project will help accomplish that for residents of a fast-growing region near Denver.

An innovative water sharing partnership, the Water, Infrastructure & Supply Efficiency Program (WISE), provides a renewable water supply for two million people in the Denver metro area. Working with the Parker Water & Sanitation District (PWSD), WISE completed a two-year, \$16.9 million project to build a new pump station that can expand pumping capacity to nearly 22 million gallons per day.

The Parker utility and WISE partners Castle Rock Water and Dominion Water & Sanitation District shared the cost of the pump station, which will serve residents in Douglas County. Consistent droughts and explosive population growth necessitated the station. Douglas County has seen its population soar from 25,153 residents in 1980 to nearly 400,000, according to estimates.

Prior to the construction of the pump station, WISE flows were pumped through the existing Rueter-Hess Water Purification Facility (RHWPf). The Rueter-Hess facility came online in 2015 and delivered 7.5 MGD of WISE flows. The recently opened pump station was outfitted with 15 MGD of pumping capacity, but it can be expanded to 22 MGD by adding another pump.

"WISE flows will be increasing in the future, and will exceed the RHWPf pumping capacity," according to Emilie Abbott, P.E., senior project manager for PWSD. "The WISE Pump Station is a dedicated pump station to handle full future WISE flows."

The project consists of a wet well and pump station with vertical turbine pumps and a hydropneumatic surge tank, yard piping (24-in and 42-in) connecting the station to other key pipelines in the distribution system, sewer and storm drainage and electrical and gas connections. It also features a flow control vault with two electrically actuated plunger valves, chemical storage and feed facilities.

The project required multiple items for access to equipment for maintenance, repair and replacement. BILCO delivered nine roof hatches of various sizes and seven floor access doors. The doors are equipped with fall protection grating.



"The BILCO hatches allow access through the floor into the pumping station wet well, through the roof for maintenance access to roof-mounted equipment, and into the flow control vault on the exterior of the building," Abbott said.

Dalco Industries, BILCO's manufacturer's representative in Colorado, procured the materials for the project and has supported other construction projects for PWSD. Filanc and HDR Engineering worked with PWSE to build the station.

"BILCO was included as an approved manufacturer for these products in the engineer's specifications," Abbott said. "They are common on many projects in our area, and the District, the contractor and the engineer have all had success with BILCO products on past projects."

South Metro Water Supply Authority manages infrastructure projects for WISE, which came online in 2017. The pump station is one of the largest capital improvement projects completed by the PWSD in recent years and is a key piece toward ensuring water stability for residents in the region.

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