

## **Livermore Irrigation Tunnel Rehabilitation**

North Poudre Irrigation Company Substantially Complete July 1, 2017



**Project Description** 

The North Poudre Irrigation Company service area encompasses approximately 300 square miles, including 160 square miles of service area under the North Poudre Canal (36 square miles of irrigated acreage), as well as additional service areas covering 14 communities and municipal water providers that own NPIC shares.

The Livermore Tunnel carries water diverted from the North Poudre Canal headgate, located on the north side of the North Fork Cache la Poudre River, for approximately 4, 900 feet before it is discharges into an earth-lined open canal and flows on toward the Buckeye Lateral, Park Creek Reservoir, and the Company's downstream delivery infrastructure. The Livermore Tunnel consists of two tunnels connected by a short section of open channel. The tunnels are approximately 8. 5 feet high and 8 feet wide with a concrete invert along the entire tunnel length. The tunnels are considered generally stable with the exception of six collapse zones where large piles of rock and debris had accumulated in the base of the tunnel, ponding up to three feet of water and restricting the overall flow capacity. Construction activities consisted of repairing those six collapse zones, and installing a concrete liner plate base, overhead and side liner plates, and filling in the voids between the wall and new liner plates.

PROJECT DATE				
Sponsor: North Poudre Irrigation Company	County: Larimer		Water Source:	Cache La Poudre
Type of Project: Ditch Rehabilitation		Board Approval Date: July 2016		
Loan Terms: 2.25% for 30 years (Original) \$1,451,673 (Final) \$1,451,673				
Design Engineer: AECOM				
Contractor: Rock Solid Solutions				