

NORTH DELTA IRRIGATION COMPANY NDIC TUNNEL REPAIR PROJECT



Before and after photos of the tunnel's east portal

Project Description

The North Delta Irrigation Company manages a twenty-three mile canal that delivers an average of 17,000 AF of water to its shareholders annually for irrigation of approximately 2,300 acres of land. The canal is an earthen ditch that included three sections of tunnel, the longest of which was a 1,450-foot tunnel through a shale mountainside. A 300-LF portion of the tunnel collapsed, blocking water deliveries to 94% of the headgates along the ditch. The Project consisted of replacing the tunnel with a pipe by reaming the tunnel to clear it of debris, fusing 1,500 LF of 54" HDPE pipe together, and pulling the pipe through the tunnel. In addition, the Company replaced nearly 1,600 LF of open channel ditch with HDPE pipe to maximize the capacity through the tunnel. The project restored the ability to convey water throughout the canal.

Project Data

Sponsor: North Delta Irrigation Company

County: Delta

Water Source: Gunnison River

Substantial Completion: April 1, 2014

Terms of Loan (Contract #C150331): \$808,000 for 30 years @ 3.10%

Design Engineer: West Water Engineering, Grand Junction, CO

Contractor: Petty Construction Company, Inc., Grand Junction, CO (Tunnel)

Beavers Construction Company, Hotchkiss, CO (Ditch Piping)

Project Elements: 1,500 LF of tunnel reaming, Install 1,500 LF of 54" HDPE, Install 1,600 LF of 60" HDPE, Construct 2 concrete collars joining the 60" and 54" pipe, (2) air release manholes, and portal backfill and grouting.