

## **Elephant Buttress Tunnel Rehabilitation Project**

Silver Lake Ditch & Reservoir Company Substantially Complete February 1, 2025

The Siver Lake Ditch & Reservoir Company Elephant Buttress Tunnel Rehabilitation Project is shown in the pictures below. The Project installed a new arched liner plate, entry and exit headwalls, and other reinforcements which will protect the ditch and its ability to provide water to shareholders.





## **Project Description**

The Silver Lake Ditch & Reservoir Company provides water from Boulder Creek to nearby residents and commercial entities and is used for irrigation on approximately 247 acres of land.

The Silver Lake Ditch & Reservoir Company's Elephant Buttress Tunnel Rehabilitation Project focused on rehabilitating the existing tunnel structure, which was initially damaged during the 2013 floods and has deteriorated since. The Project work included replacing the existing western portal headwall with a more substantial headwall across the width of the tunnel, installation of a modular arched liner plate system with geotechnical foam used to fill in voids between the tunnel and liner plate to protect portions of the tunnel, installation of a new rock deflector, and new liner plate and a new cast-in-place headwall at the eastern tunnel portal.

PROJECT DATA	
Sponsor: Silver Lake Ditch & Reservoir Company	County: Boulder Water Source: Boulder Creek
Type of Project: Ditch Rehabilitation	Board Approval Date: September 2024
Loan Terms: 20 years @ 2.95% (Principal) \$151,500	
Design Engineer: Harrison Western Construction Corporation	
Contractor: Harrison Western Construction Corporation	