



Minidoka Irrigation District

Project Spotlight

Lateral 39 Pipeline

Project Overview: As part of ongoing efforts to improve water conservation and delivery reliability, MID identified Lateral 39 as a priority for modernization. A portion of the lateral consisted of an aging rock-lined ditch that had remained largely unchanged since its original construction and was prone to significant seepage and inefficiencies, reducing water availability to downstream users.

To address these concerns, MID converted approximately 2,840 feet of open channel into a buried 18-inch PVC pipeline. This improvement reduces water loss, improves flow control, and increases delivery reliability, allowing the District to better serve water users while maximizing available water resources. The project was funded in part through the Bureau of Reclamation's WaterSMART Surface Water Efficiency Program.



Lateral 39's rock lined channel prior to piping

PROJECT HIGHLIGHTS

Location: Jackson, Idaho

Total Project Cost: \$210,113

USBR WaterSmart: \$75,000

MID: \$135,113

Start: December 2022

Finish: March 2023

Challenges Faced: Prior to construction, Lateral 39 created ongoing operational challenges for both the District and its water users. The rock-lined ditch allowed for significant water loss due to seepage, reducing delivery efficiency and limiting water availability to downstream users. These inconsistencies often led to disputes between neighboring landowners, particularly during periods of high demand.

During construction, MID also encountered difficult excavation conditions due to rock, along with weather-related delays. In addition, a sharp increase in material costs, especially pipe, between project planning and implementation created added challenges. Despite these factors, the District remained committed to completing the project and improving long-term system performance.



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The Solution: To eliminate seepage losses and improve system reliability, MID replaced the open ditch with an enclosed pipeline system. Installing 18-inch PVC pipe allows water to be conveyed efficiently from the head of the lateral to downstream users with minimal loss. The pipeline design also improves operational control and consistency, ensuring that water is delivered where and when it is needed.

By modernizing this portion of the system, MID addressed both the physical inefficiencies of the lateral and the operational challenges associated with unreliable water delivery.

Construction: Construction of the Lateral 39 pipeline was completed in-house by MID crews, demonstrating the District's capability to efficiently execute infrastructure improvements. Work began following the irrigation season with site preparation, including removal of the existing rock-lined ditch and excavation to establish proper grade.

Crews then installed the pipeline, associated diversion points, and a concrete structure at the head of the lateral. Bedding material was brought in to ensure long-term stability, and careful attention was given to maintaining proper slope and alignment throughout the installation. Final phases included backfilling, site restoration, and cleanup, leaving the area in equal or better condition than before construction. The project was completed in March 2023.



18" PVC pipe delivers water to water users while ensuring that water loss is minimal

Project Benefits: The Lateral 39 pipeline has provided immediate benefits to both the District and its water users, most notably through reduced water loss and improved delivery efficiency. By eliminating seepage, more water remains in the system for beneficial use. The pipeline also provides consistent and reliable delivery, reducing variability for downstream users.

Operationally, the project has minimized conflicts between neighboring landowners by improving the predictability of water distribution. Since completion, the lateral has operated without issue, reducing maintenance needs and supporting long-term system reliability.