Modernizing Idaho's Water Infrastructure

An Ongoing Story Series on the Idaho Water Resource Board's Aging Infrastructure Grant Program Issue No. 25

Blaine County Canal Co. Water & Power Efficiency Project in Little Lost Valley

Overview: Founded in 1910, the Blaine County Canal Co. (BCCC) is a non-profit corporation of farmer-shareholders responsible for the management and operation of an irrigation system in the lower Little Lost River Valley near Howe in Butte County. BCCC has 18 shareholders that farm about 4,880 acres of land.

Primary crops are alfalfa, silage corn, potatoes and small grains.

BCCC diverts 60 cubic feet per second flow of water from the Little Lost River near Howe through a point of diversion located on Bureau of Land Management (BLM)-managed lands. An open, unlined canal system conveys irrigation water across both public and private lands to points of use on private farmlands.

The BCCC Water and Energy Efficiency Project will convert approximately 13.5 miles of the open conveyance ditch to an enclosed pipeline. Contractors are installing HDPE pipe along the existing open canal route, extending beyond 18.4 miles of pipeline recently added to the BCCC irrigation system through a project funded by NRCS.

The Challenge: The old irrigation water delivery system features an unlined, open irrigation ditch that loses as much as 30 percent to seepage due to infiltration and evaporation during wet years and up to 100 percent during dry years.

Construction crew installs HDPE pipeline in the Blaine County Canal Co. irrigation system near Howe during the winter of 2025-26 (photo courtesy Rory Pancheri).

- ***Type of project:*** Water and Energy Efficiency Project
- ***Location:*** Howe, Idaho
- ***Total project cost:*** $5.7 million
- ***Idaho Water Resource Board Aging Infrastructure Grant:*** $1.3 million
- ***IWRB loan***: $6 million
- ***NRCS funding:*** $2.5 million
- ***Start:*** October 2025
- ***Finish:*** April 2026

The Solution: The Water and Energy Efficiency Project will help the BCCC deliver water to its shareholders in the Little Lost River Valley by making more efficient use of surface water and reducing the need for groundwater pumping.

"After completing the previous pipeline project, they've had more water than they've ever had before, and the irrigation water lasted longer in the season than ever before," said Jesse Fullmer, NRCS District Conservationist in Butte County.

Piping the system will also make the

Blaine County Canal Co. Water & Energy Efficiency Project (cont.)

system more energy efficient and reduce the amount of supplemental groundwater needed, reducing pumping and allowing for aquifer recharge. The project will eliminate the need for several groundwater pumps, saving energy from lifting water from the aquifer.

Project Partners: BCCC is partnering with the Natural Resources Conservation Service (NRCS), the Idaho Water Resource Board (IWRB), the Idaho Department of Environmental Quality (DEQ), and Butte County to complete the project.

NRCS has provided the engineering design and technical assistance for the project through the Regional Conservation Partnership Program (RCPP).

Butte County is providing in-kind services to remove bridges that are no longer needed. The Butte Soil and Water Conservation District will provide their no-till drill to re-seed the disturbed ground with native vegetation after the project is complete.

Project Benefits: Increasing the efficiency of the water conveyance system will make the system – and the landowners who rely on it – more drought resilient as well as increase the stability of the water supply needed to bring crops to fruition. With prevalent drought conditions in the Little Lost River Valley, improving the irrigation system efficiency will allow the BCCC to be better stewards of a limited surface water resource.

Estimated power savings from using surface water for the project is estimated to be 1.58 million kilowatt-hours.

Above, HDPE pipeline in place in a deep trench after each section of pipe has been heat-sealed together. Below, a broader view of the project installation with Big Southern Butte in the background. (Photos courtesy Rory Pancheri, BCCC)

Reducing groundwater usage and the resulting aquifer recharge will benefit all of Idaho's residents, officials said.

Furthermore, the increased efficiency of the delivery system will allow more water to stay in the Little Lost River, enhancing fish and wildlife habitat, including the ESA-listed bull trout.

Leaving additional water in the river will also increase recreational opportunities for the Little Lost River.

Algal growth in the open canal and invasive weed spread will be eliminated.

Economically, agriculture is the life-blood of the Little Lost River Valley. The irrigation water provided by this system directly supports 25 families and provides economic benefit to all the residents of Butte County. Increasing the efficiency of the system reduces costs and increases profits for all the farming families.

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