



Modernizing Idaho's Water Infrastructure

An Ongoing Story Series on the Idaho Water Resource Board's Aging Infrastructure Grant Program **ISSUE NO. 23**

North Side Canal Company Main Canal Rehabilitation Project

Overview: The North Side Canal Co. (NSCC) was established under the authority of the “Desert Land Act” and “Carey Act” in 1907. NSCC began water delivery in 1909 from Milner Dam on the Snake River with a natural flow water right. Development of the project continued over the next 100+ years until approximately 155,000 acres of desert land were developed and irrigated from Milner Dam to just east of the King Hill area on the north side of the Snake River.

Additional natural flow water rights were obtained along with storage water rights in Jackson Lake, Palisades Reservoir, and American Falls Reservoir to increase the water supply needed to irrigate the project.

NSCC owns and operates 900 miles of irrigation canals that deliver approximately 1 million acre-feet of irrigation water per year to 155,000 acres of farmland in the Eden, Hazelton, Jerome, Wendell, Gooding, Bliss and King Hill areas below Milner Dam.

The NSCC main canal conveys over 2,800 cubic feet per second (cfs) of water during the summer irrigation season to meet the crop water needs on the project. Investments made to the existing irrigation canal systems, such as NSCC's main canal, help to continue the conservation of surface water and ensure the sustainable and reliability of water delivered to



Construction specialist applies shotcrete, a mix of cement, sand, and aggregate mix pneumatically projected through a hose at high velocity onto the walls of the North Side main canal below Milner Dam. (Photo courtesy North Side Canal Co.)

- **Type of project:** Main Canal Rehabilitation Project
- **Location:** Burley, Idaho
- **Total project cost:** \$9 million
- **Idaho Water Resource Board Aging Infrastructure Grants:** Two grants for \$4 million
- **IWRB loan:** \$5 million
- **North Side Canal Co. cost-share:** \$5M
- **Start:** November 2025
- **Finish:** March 2027

producers for crop production.

The Challenge: More than 8,000 linear feet of concrete lining was originally constructed in 1907 in the NSCC main canal to alleviate water loss through fractured basalt that was encountered when the canal was first constructed below Milner Dam.

The existing concrete has significant degradation over the last century of use. Continued degradation and failure of the concrete lining will result in more water lost through the underlying fractured rock. Loss of water in this section of canal adversely impacts the producers served by NSCC.

The Idaho agricultural economy is a \$20 billion industry created by 11.5



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North Side Canal Co. Rehabilitation Project (cont.)

million acres of farmland in Southern Idaho. Proportionally, NSCC plays a critical role in keeping \$270 million of the Idaho agricultural economy and support industries thriving in the Magic Valley.

This rehabilitation project will begin at the end of a previous 4,000+ feet lining project that was completed over two winter seasons between the fall of 2016 and spring of 2018 by McAlvain Construction.

That project was financed using NSCC's own capital and two loans from the IWRB, one of which has been paid off. The total construction cost at the time was \$5.2 million.

New construction: The existing concrete and loose facial rock will be removed to expose competent base rock along 4,200 feet of canal. Rock anchors will be drilled into the base rock, reinforcing the rebar grid tied to the walls, and then shotcrete is applied to the walls, and a concrete floor is poured. Starr Corp., based in Twin Falls, is the construction contractor.

The NSCC rehabilitation project is being done in two phases: Phase 1 will recoat the 10-foot-high canal walls with concrete in the winter of 2025-2026. Phase 2 will resurface the concrete floor of the canal.

Public benefits: By rehabilitating this section of the main canal, NSCC will be able to "reset the clock" and restore this section of canal back to its original state that has ensured the reliability and conservation of shareholder water over the last 100+ years.

Investments made into existing



Recently completed canal walls are sealed with shotcrete and ready for efficient irrigation use in the spring of 2026. Inset photo: Heated tent structure, kept at a temperature of 60 degrees, allows the shotcrete walls to cure for four days following the application. (Photo by Steve Stuebner/IWRB)

irrigation canal systems, such as NSCC's main canal, help to continue the conservation of surface water and ensure the sustainable delivery of water to the farmers for crop production. Raw crop commodities are then processed by local companies that employ local employees that work to sustain the economy at the local, state, and national level. Keeping irrigation infrastructure in good condition in an arid climate is the key element

to an economy that depends on the production of food to exist. By continuing to maintain the main canal and keep it in working condition, the company will be able to continue sustaining hydropower production on the system, conserve water, sustain the water supply, and further build drought resiliency for the southern Idaho economy.

For more information, contact NSCC <https://www.northsidecanal.com/>