

# Joint System Canal Piping Project

**SPONSORS:** Rogue River Valley Irrigation District and Medford Irrigation District

**PROJECT PARTNERS:** Energy Trust of Oregon, Farmers Conservation Alliance, Jackson County Soil and Water Conservation District, Rogue River Watershed Council, Trout Unlimited

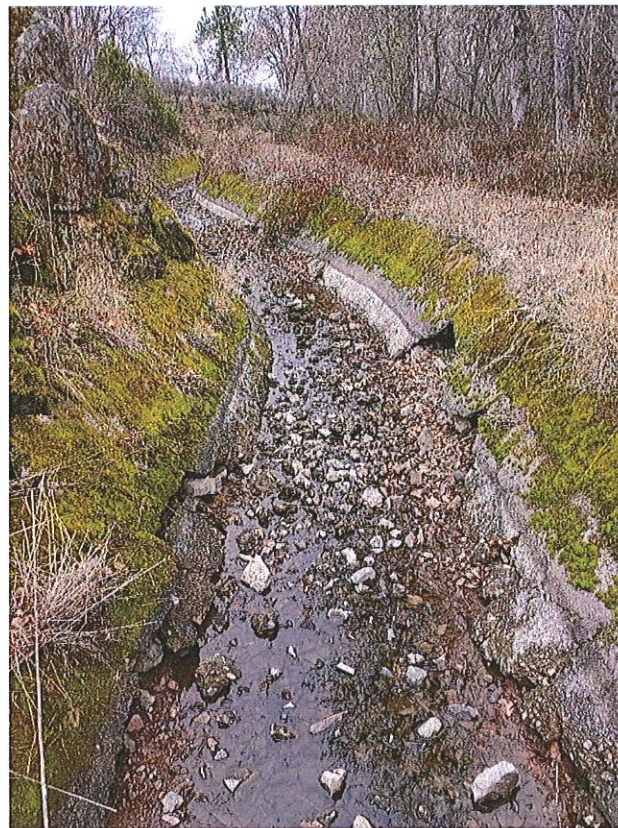
## BACKGROUND

Rogue River Valley Irrigation District and Medford Irrigation District collectively serve 2,225 farms across 21,758 irrigated acres. The two districts move water to farmers through the 13.6-mile Joint System Canal, an earthen and concrete-lined canal first constructed in 1902 with improvements made in the 1950s.

The aging canal infrastructure is at risk from catastrophic failures, known as “blow outs”, which can cause flooding with impacts to downslope properties and structures. Blow outs can occur due to many causes that impact the structural integrity of the canal or siphon, including cumulative effects from livestock crossing the canal, rodent activity, or falling trees.

Properties and structures along the canal are also at risk from wildfire. The Alameda fire of September 2020 destroyed over 2,700 buildings in nearby communities and the Medford Irrigation District sustained damage to its water delivery system.

The earthen canal system currently loses 13 percent of its water due to evaporation and seepage. Water losses exacerbate the impact of drought, an ongoing challenge in the county. The districts have not had enough water in the last 10 years to make deliveries for the full irrigation season, impacting agricultural production. These losses also contribute to lower streamflows that affect fish and aquatic habitat.



*South Fork Canal*

## PROPOSED PROJECT

The project seeks to pipe the 13.6-mile Joint System Canal, including North and South Fork Diversion Canals. The project will also replace the siphon on the North Fork Diversion Canal as well as the Lake Creek, Osborne, and Wyatt siphons on the Joint System Canal. Depending on findings from design processes and basin stakeholder input, the project may also modify the diversion structures on both creeks if needed to improve fish passage.

Upgrading the canal system to a pipe dramatically reduces the risk of flooding caused by blowouts and eliminates water losses due to seepage and evaporation. The project would also install standpipes to provide pressurized water to fire departments, allowing quicker response to rural structure or wildland fires.

## **BENEFITS**

Piping these canals could provide the following benefits for the two districts, local farms, fish, and the community:

- Create or sustain up to 476 short-term construction jobs and sustain nearly 600 jobs in the local agricultural economy.
- Mitigate drought impacts by providing more reliable water delivery to farms and save 2,598 acre-feet of water annually.
- Improve wildfire suppression capability with pressurized water and standpipes to protect nearby homes and structures.
- Enhance streamflow and water quality in Little Butte Creek.
- Improve fish passage conditions and aquatic habitat for the federally threatened Lost River sucker and Southern Oregon/Northern California coho salmon, and sensitive species including chinook, bull trout, steelhead trout, and pacific lamprey.
- Enable the conservation of up to 44,000 kWh of energy and over \$4,000 in annual pumping costs for farmers served by the canal.
- Dramatically reduce flooding risks to downslope properties and structures by reducing the risk of infrastructure failures.
- Decrease district operations and maintenance costs.

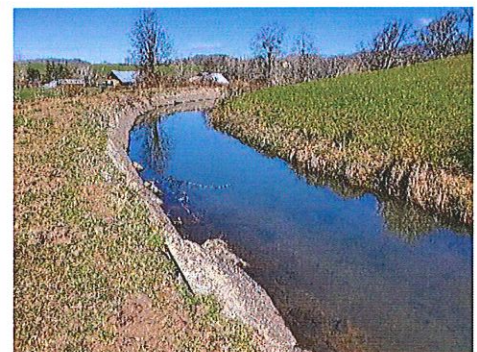


*Lake Creek Siphon*

## **FUNDING AND PHASES**

Modernizing the Joint System Canal will cost an estimated \$56.2 million based on a high-level design. The size of the project requires a phased approach to design the pipeline, apply for grants, secure funding, complete permitting, construction, and other steps.

At this time, the two irrigation districts are actively working to secure federal and state funding for the project, moving through design and permitting processes, and working with local and regional stakeholders to maximize project benefits.



*North Fork Canal*

## **PROJECT CONTACTS**

For additional information about the project, please contact:

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