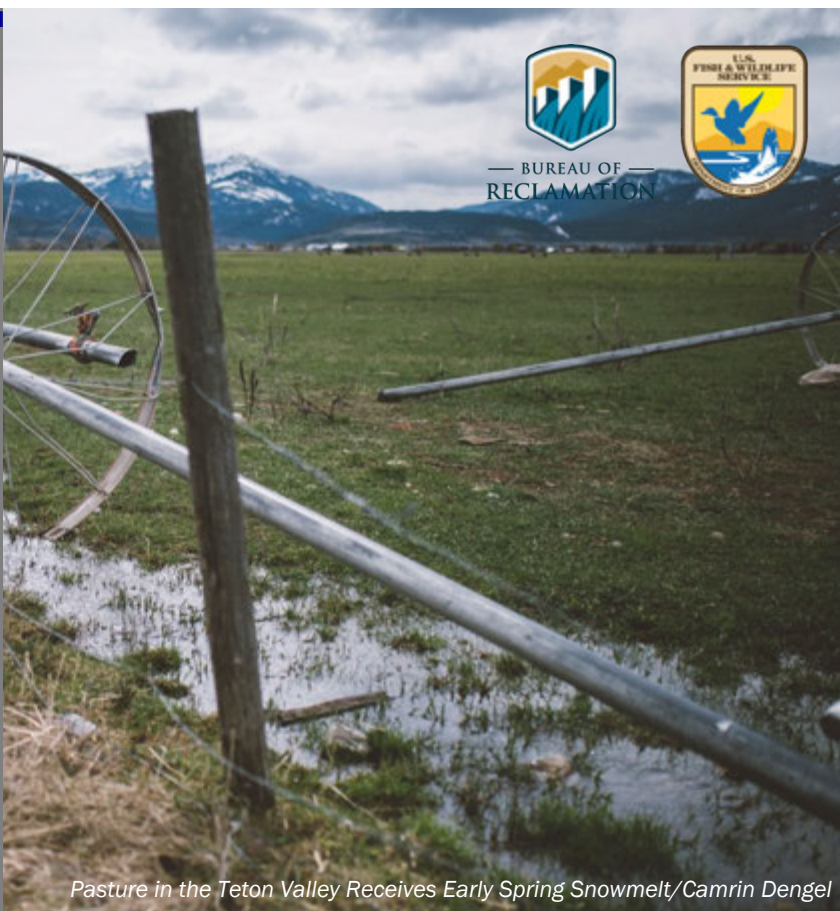


WATER CONSERVATION AND RE-USE

Improving Water Availability Through the Teton Water Users Association's Water Management Plan



Population growth has increased water demand in the Teton Watershed, located in Idaho. Concurrently, climate change has reduced snowpack, causing earlier spring runoff, and making summers hotter and drier. The resulting decline in the local aquifer threatens water availability and water quality for agriculture, residential users, and fish and wildlife. To address these issues, Friends of the Teton River convened diverse stakeholders to form the Teton Water Users Association (TWUA). The TWUA created a water management plan to recharge snowmelt into the aquifer, providing a larger, more stable water supply for all stakeholders.



KEY ISSUES ADDRESSED

Decreasing water availability threatens the local economy and aquifer levels needed to sustain productive agriculture, residential water, and healthy ecosystems. Historic land use and rapid development have led to additional habitat loss and water quality concerns. Reduced stream flows along with other natural and human causes have interfered with the movement of critical species, such as the Yellowstone Cutthroat Trout (*Oncorhynchus clarkii bouvieri*), and healthy geomorphic processes of the Teton River. Further, climate change is causing increased drought conditions and decreasing water reliability. The TWUA created its water management plan to provide long-term, sustainable solutions to these issues.

PROJECT GOALS

- Engage diverse stakeholders to develop a water management plan
- Improve stream conditions, water quality, and flows in the Teton River
- Secure and maintain an affordable, high-quality source of water for agriculture, municipalities, and healthy ecosystems

TROUT REBOUNDS

As a result of targeted restoration efforts, the Teton River watershed is the only watershed in the Yellowstone Cutthroat Trout's range that has had rebounding populations.



Rancher James Dewey, Early Adopter of Aquifer Recharge/Camrin Dengel

PROJECT HIGHLIGHTS

Project Selection: The TWUA collaboratively selected groundwater recharge as the project to focus their efforts on because it balanced the needs of all stakeholder groups (agricultural, municipal/county, and conservation).

Hydrologic Monitoring: The TWUA recharge project includes hydrologic monitoring to gain an understanding of the physical impacts of storing water in the aquifer and how it returns to the river in late summer.

Groundwater Recharge Project: The TWUA outlined goals, methods, outcomes, necessary investments, and actions for the recharge project. The initial project goal was to recharge the aquifer by 10,000 acre-feet. This goal was based on years of monitoring and hydrologic analyses, coupled with the ability of farmers to shift irrigation practices and techniques, including flood irrigation.

Conservation Priority: Groundwater recharge areas and targets were aimed at improving late-season flows and water temperatures in the Teton River, when Yellowstone Cutthroat Trout need it most, to meet federal and state conservation goals.

Collaborators

- Friends of the Teton River (FTR)
- Teton Soil and Water Conservation District
- Henry's Fork Foundation
- Farm Bureau
- LegacyWorks Group
- See online for full list of collaborators

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LESSONS LEARNED

The TWUA prioritized the development of a project that would improve the health of the watershed by better managing water supplies and increasing late-season flows, when it is most essential for farmers and fish. By identifying stakeholders' goals and priorities early in the process, and working together to identify project ideas, the recharge project had measurable benefits and invigorated enthusiasm among stakeholders.

Teton Valley is a small community where relationships are particularly important. Friends of the Teton River, who facilitated the formation of the TWUA, has over twenty years' experience bringing stakeholders together in the Teton River watershed. Previous relationships helped organize the TWUA quickly and effectively. In addition, maintaining open and honest communication channels among stakeholders, such as transparent one-on-one and group conversations, streamlined the process of preparing the water management plan.

NEXT STEPS

- Continue developing strategic priorities for implementing groundwater recharge, fish passage, and restoration projects in the Teton River Watershed
- Increase education and outreach to teach partners and the public about the benefits of groundwater recharge
- Involve new partners in the TWUA, such as those with larger management scopes and policy decision capacities in the Idaho region and beyond

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Working Lands in the Teton Valley/Camrin Dengel