



May 16, 2023

Representative Ken Helm, Chair  
Representative Annessa Hartman, Vice-Chair  
Representative Mark Owens, Vice-Chair  
House Committee on Agriculture, Land Use, Natural Resources, and Water

**Re: Trout Unlimited supports Irrigation Modernization Projects that Legally Protect a Portion of the Conserved Water, Proportional to the Private vs. Public Funding**

Chair Helm, Vice Chairs Hartman and Owens, and Members of the Committee,

My name is Chrysten Rivard and I am the Oregon Director at Trout Unlimited.

Trout Unlimited (TU) is a non-profit dedicated to conserving cold-water fish (such as trout, salmon, and steelhead) and their habitats. We have about 20 staff that support our Oregon program, most of whom are project managers that work on the ground to improve habitat, fish passage, and instream flows for native fish.

TU has worked on several irrigation modernization projects (such as conversions from flood irrigation to sprinklers, or piping of open canals) in key watersheds including the Rogue and Klamath basins, and in Wallowa County. We do that work to help meet the state's instream flow targets and in partnership with the agricultural community. We are familiar with some of the primary funding and legal tools at the state and federal levels for this work, and I appreciate this opportunity to provide input on irrigation modernization efforts in Oregon.

Irrigation modernization is often discussed with regard to how it benefits *farmers*, and that's important. But it can also benefit fish, streamflows, water quality, and recreation. The best way of ensuring this double bottom line is to *legally protect a portion* of the water conserved by the project as an instream water right that retains the priority date of the underlying consumptive water right. When structured this way, irrigation modernization can increase the quantity of water reliably available to both irrigators and native cold-water fish.

I'd like to use my time to provide our high-level thoughts on irrigation modernization in Oregon, including an explanation of why it's reasonable to ask water right holders to "give up" a portion of their water right in the course of these projects, and conclude with some recommendations for next steps.

**In Trout Unlimited's view, irrigation modernization projects which use public funds should result in some level of *additional, legally protected* instream flows for the source stream. Otherwise, these expensive projects can result in hardening of demand for the water conserved by the project making it even more difficult to achieve a water secure future for Oregon.**

1. Oregon must guard against the risk of hardening consumptive demand for surface water, and ensure broad benefits with public funding.

When a canal is piped, the water right holder (such as an irrigation district) is reasonably likely to end up diverting the same quantity of water after an irrigation efficiency project, but using more of it consumptively at the end of the delivery system.

This is known as “hardening” of demand. In other words, a district with unlined canals that isn’t able to fully serve its customers due to drought—which then pipes its canals—is likely to keep diverting the same amount of water but delivering more water to its patrons. And even if a project causes some reduction in diversions associated with the improved infrastructure there is *no assurance* of that practice continuing in the future. With a changing climate, more efficient delivery systems are likely to increase irrigation use, not streamflows.

Inefficient ditches can lose significant water to seepage, and the goal of piping these ditches is to eliminate that loss. But depending on local geology, seepage water can serve important environmental benefit by returning to the stream through surface springs, or supplementing groundwater aquifer levels. Seepage can also supply domestic wells. As a result, if a ditch is piped and all of the conserved water is allocated to out of stream uses, the outcome can be increased depletion of rivers and aquifers.

The Allocation of Conserved Water (ACW) program at the Oregon Water Resources Department (OWRD) solves for this problem. Under ORS 537.470(3), if more than 25% of funds used to finance a project are public and non-repayable, then a corresponding proportion of the surface water conserved is allocated to the state and eligible to be converted to an instream water right.

For example, if a \$10 million canal piping project or on-farm upgrade to more efficient irrigation equipment “conserves” 2 cubic feet per second (cfs) of water, and the State funds 50% of that project, then the water right holder can use 1 cfs of the conserved water (including on new land that formerly didn’t have a water right), and 1 cfs is dedicated instream as an instream water right. In that way, the general public and environment receive a legally protected instream benefit from the use of public funds for these projects.

When irrigation modernization projects use the ACW program, the water right holder still receives more water after the project than they did before, and more water remains instream past their point of diversion. Programs such as ACW are an equitable, fair apportionment of resources based on the financial contributions of the parties.

Use of the ACW program is voluntary, and state programs often don’t require routing funding through it. Typically, the program is used by a landowner that seeks to: (i) upgrade their operations (e.g., from labor-intensive flood irrigation to more efficient center-pivot sprinklers) and (ii) move some of the water they otherwise would’ve needed pre-project to new lands under their ownership that didn’t have a water right. In that context, the landowner may be seen as “giving up” some of their water, but in fact they’re able to increase their irrigated acreage—but use the water more efficiently.

## 2. Legal protection of conserved water is key.

Irrigation efficiency projects are good for rivers and fish *if* the project's funding is routed through the ACW program or has a similar obligation for public benefit. Irrigation efficiency projects that simply waste less water are not necessarily good for rivers or fish, and can even make conditions worse.

## 3. Takeaways and Recommendations

- Water resources in Oregon are highly over-allocated in many basins, and not all water needs were considered when these water rights were issued.
- Optimizing irrigation system efficiency with respect to reducing water use and increasing energy efficiency, are critical tools to building a water-secure future for Oregon.
- Irrigation modernization should be defined to include more than pipes and sprinklers. It should also improve fish passage at diversions, invest in water management and measurement infrastructures, and eliminate waste of water.
- Each modernization project should be evaluated based on the specific conditions of the project, including the relative amount of public benefit when public funding is used, and whether the project legally protects water instream.
- Most irrigation modernization projects should be run through the ACW program, ensuring an appropriate amount of instream benefit. However, this program continues to have many loopholes that can lead to de minimis amounts of instream flow. The state should require recipients of irrigation modernization funds to apply the full extent of a project through the ACW program, rather than just a portion as is sometimes the practice. For example, if a district will receive \$X for a piping project on 3 miles of ditch, then the State should require the applicant to submit all water-savings from the full 3 miles of piping through the program, rather than just applying for the water-savings from 1 mile of the piping through the ACW program.
- If local site conditions are not adequately considered, we could easily fund projects that further reduce instream flows and degrade water quality. The specifics of the existing system, local hydrology and geology, and crop types, as well as the priority of the water rights and seasonal timing of ecological water needs, all must be factored in to project planning and the determination if piping or other modernization upgrades are an appropriate tool for building drought resiliency.

#### 4. Conclusion

There's a way to fund irrigation modernization that makes both agricultural producers and the environment more drought resilient, which is a win-win. Legally protecting a portion of the water conserved is critical. Without it, irrigation modernization efforts will be expensive and may not benefit fish, wildlife, river health, or recreational interests as expected.

Thank you for this opportunity to provide comments, and please let me know if you have any questions.

Sincerely,

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