



FARM BILL EVOLUTION TO INCREASE LANDOWNER AND ECOSYSTEM SERVICE BENEFITS

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This fact sheet series highlights innovative ways that family forest and ranch owners are prospering from protecting and enhancing ecosystem services on their land. Ecosystem services are the benefits people receive from nature such as water quality, wildlife habitat, and carbon sequestration.

With approximately 9,400 professionals working in nearly every one of the nation's 3,071 counties and an emphasis on voluntary, incentives-based approaches to conservation, the Natural Resources Conservation Service (NRCS) has significantly influenced private working lands management. NRCS conservation programs, which typically deliver financial and technical assistance on a landowner-by-landowner basis, have been criticized as "random acts of conservation" that lack strategic vision for delivering landscape-scale outcomes.

To address this, the 2008 Farm Bill created new initiatives to allow partner organizations to propose strategic, multi-landowner projects that address priority resource concerns within specific hydrographic or geographic boundaries. The Three Sisters Irrigation District in the Upper Deschutes River Basin of Central Oregon used one of these programs, the Agricultural Water Enhancement Program (AWEP), as one source of money to bring pressurized water to irrigators within the district and restore water to a historically dewatered creek. The McKenzie Canyon project reveals some of the relative strengths and weaknesses of one of NRCS's new approaches.

PARTNERS

The Three Sisters Irrigation District was the primary local partner for the project. The irrigation district worked closely with the Jefferson Soil and Water Conservation District as well as local and state NRCS staff to develop a successful AWEP proposal. During implementation, NRCS, the irrigation district, and local landowners worked together to enroll irrigators in NRCS programs and accomplish the project on the ground. The project was part of a larger effort throughout the basin to restore instream flows and support reintroduction of listed species. Partners in the broader effort included numerous local, state and national government agencies as well as local and regional conservation non-profits.

THE PROGRAM

Prior to the McKenzie Canyon project, the irrigation district used an open canal system that lost 40 to 50 percent of the water to seepage, exacerbating low flow conditions in Whychus Creek and reducing the district's ability to deliver water for crops. Extreme low flows during the late summer irrigation season impaired water quality and habitat for bull trout, listed as threatened under the



Endangered Species Act (ESA), as well as other resident trout in Whychus Creek. Historically, the creek was an important spawning and rearing stream for Steelhead trout and Chinook salmon, both also ESA listed. Efforts to reintroduce these species started in 2007 as part of Federal Energy Regulatory Commission re-licensing of a dam that limited passage to the Upper Basin.

The AWEP project built upon a larger project in the irrigation district to replace 14.5 miles of open irrigation canals with 12.5 miles of pressurized pipeline, allowing 31 farms in the lower district to apply for the on-farm improvements necessary to use pressurized water. The AWEP project installed over 60,000 feet of pipe, improving the viability and profitability of sustainable farming in the lower district.

In contrast with other NRCS programs, AWEP allowed NRCS and its local partners to dedicate sufficient funding to complete a comprehensive, high-priority project. "What is effective is that it carves out the dollars so that you can focus on tying into the larger projects," remarked an NRCS official. Other NRCS programs don't have "that focused funding."

OUTCOMES

More efficient, effective, and reliable water delivery has increased agricultural productivity throughout the district. For most producers, a pressurized system also eliminated electricity costs associated with pumping water out of irrigation ponds and on-farm delivery of water. From an irrigation district standpoint, the project significantly reduced operations and maintenance costs in the lower district, saving money for both the district and its members.

A pressurized system also eliminated conveyance losses and irrigators in the lower district use only the water that they need. As a result, landowners voluntarily agreed to return 6 cubic feet per second (cfs) of protected instream flow to Whychus Creek. Coupled with the other irrigation district projects, at least 20 cfs of protected instream flows will be restored to the creek. Furthermore, habitat for ESA listed bull trout has been enhanced, and assuring minimum spawning flows improves the chances of success for reintroduction of steelhead and Chinook salmon to the Upper Basin.

The AWEP project increased the scope of NRCS's influence within the basin, as many of the landowners involved in the project had never interacted with NRCS before. This project also increased trust between NRCS, the irrigation district, and landowners who worked cooperatively to resolve issues that arose during implementation.

CHALLENGES

AWEP was implemented on a farm-by-farm basis using Environmental Quality Incentive Program (EQIP) contracts. This increased the administrative burden on the local NRCS office. Enabling the irrigation district to apply for a contract on behalf of the landowners would have streamlined the process.

Since AWEP was embedded within EQIP, it also had tight timelines and strict rules for enrollment and implementation, which limited overall flexibility. NRCS and project partners mentioned that timing and "just the logistics of getting the right people through the door at the right time," presented a major challenge and resulted in several landowners missing out on the opportunity to receive financial assistance.

AWEP also does not provide any funding for project planning or to help defer the costs incurred by project partners during implementation. For the McKenzie Canyon project, the irrigation district secured funding from other sources to support all phases of the project, which was vital to its success.



FUTURE PROSPECTS

All the farms began using pressurized irrigation in May 2010, and the irrigation district is now exploring ways to generate energy with the system, as it is primarily gravity-fed. This could provide additional value for the irrigation district and individual landowners.

The next iteration of the Farm Bill proposes to consolidate AWEP into the Regional Conservation Partnership Program. It is uncertain whether the next Farm Bill, which has yet to be finalized and approved, will incorporate lessons learned from AWEP.

LEARN MORE

For more information about the project and to read the full fact sheet series, go to:

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