



NRCS Programs Help Landowners with Flood Irrigation Projects

Cost-share Environmental Quality Incentives Program benefits migratory birds as well.

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by Lauren Brown

Flood-irrigated wet meadows are a coveted asset in the Harney Basin as they provide vital habitat to the migratory bird population that passes through the basin each spring as they make their way to their northern breeding grounds. The meadows are also vital to ranchers in the basin for growing meadow hay as cattle feed.

The Harney Basin Wetlands Collaborative has made preserving these wet meadows a priority. Fortunately, we are able to collaborate with an existing Natural Resource Conservation Service (NRCS) program working with wet meadow land owners. The NRCS offers cost-share programs to help agricultural producers make and maintain conservation improvements on their land. One of the programs the NRCS offers is the Environmental Quality Incentives Program (EQIP), which provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat. EQIP projects in the Harney Basin include:

- Saving Groundwater in the Harney Basin Using Efficient Irrigation Technologies
- Fire Prevention and Management in the Lone Pine Rangeland Fire Protection Association
- Stinkingwater Area Medusahead Management Plan
- Working Lands for Waterbird Habitat Conservation



Pictured: Ross' Geese in a Harney Basin wet meadow. Photo by Teresa Wicks, Portland Audubon Eastern Oregon Field Coordinator

Carlton Strough is a biologist who contracts with the NRCS to work on flood irrigation projects that are implemented through the EQIP program for waterbird habitat conservation. "We help landowners renovate their infrastructure and address resource concerns that we see in the field," he said.

The project description for the Working Lands for Waterbird Habitat Conservation EQIP mentions the decline in Northern pintail populations and notes the importance of the wet meadows on private lands that make up the spring migration habitat for these migratory birds. It states that landowners may feel ecological, economic and societal pressure to change their production systems

and the land use for such meadows at the detriment to the wildlife. The main purpose of the waterbird program is to secure 24,800 acres of flood-irrigated habitat in the Oregon portion of the migratory bird flyway through conservation easements and/or practices that improve management ability and reduce incentives for converting to other uses.

Strough said that to help landowners renovate infrastructure to achieve irrigation efficiency, funds and labor are required. "This stuff isn't cheap. The material, the pipes, the culverts, the headgates, the ditch maintenance and the concrete work -- this stuff is expensive. Having this incentive for this cost-share program available to these landowners opens up a door to really assist them and provide an opportunity to do this work," he said.

The program offers landowners an avenue to match their goal of improving flood irrigation efficiency with the natural resource concern, in this case improving waterbird habitat. "It helps the conservation side of things but also helps with the economic side of things for a given landowner's operation," Strough said. By expanding a property's water capabilities and efficiency, the landowner will theoretically see more meadow hay, which will in turn feed their cattle, all the while creating more migratory bird habitat for waterfowl in the spring. "It's multifaceted," said Strough of the waterbird EQIP, "but it's primarily for conservation and an incentive for a cost-share and economic benefit for the landowner."

Landowners or entities interested in applying for the program work with the Farm Service Agency to identify whether the property is eligible. Some requirements for the program include:

- An adjusted gross income statement, with landowners making less than \$900,000.
- Proof of who controls the land.
- Providing a list of those in control of the land and the stake of each member.

Strough said landowners and entities are given a checklist to help them work through the requirements and an NRCS employee will help walk them through the process. "It's pretty hands on, and we take care of the majority of it, specifically as it comes to eligibility," he said.

Strough noted that the most important aspect of the eligibility process is identifying the resource concern. This could include erosion, habitat management, poor plant composition or invasive weeds, among others. "There has to be a resource concern that we identify. We then set goals and milestones to meet some of these goals," Strough said.

Currently, Strough has 11 EQIP projects that are ongoing or have been completed, which have involved 3,349 acres. Once a project is given the green light to go forward, Strough and a team of engineers evaluate the field to see where improvements can be made. "The landowner typically has a great idea. I always tell them they know the land a lot better than me, so we'll take their word for it. However, it doesn't mean we can't work outside that box and create a more holistic plan that will address their needs and our needs and still increase the management capabilities out there as far as water control and irrigation concerns," he said.

Landowner Leslie Richman was pleased with the results of her EQIP project, which took place on two parcels of property, one 49-acre parcel and another 40-acre parcel. The properties have slough channels that wind through them and create a wet meadow habitat when there is water. Richman said that about 7 out of 10 years are fairly good water years, but on the off years, water is scarce. "If you don't have water, it's really problematic because your wet meadow species are dependent on that water. As we get drier and drier years, those wet meadow species start to falter and then it opens the system up for weeds," she said.

She said the NRCS engineers came up with an idea to maximize the water coming through on marginally wet years. They installed a flap gate on the end of a culvert so that the water pressure would open the flap and let water in and then as the water receded, the flap gate would close and hold the water in a big low spot on the property. "The meadow species would then have longer in the spring to have water inundation, which is what they need," Richman said.

The project was planned in 2017 and completed in May 2018. The flap gate worked as intended in both 2018 and 2019. This year, there was not enough water to do anything with, "but the infrastructure was there," Richman said. "It was a

pretty ingenious thing to do. Really simple and relatively inexpensive but it definitely had the potential to help hold water a little bit longer on those meadows.”

Jon Reponen is currently working with the NRCS on an EQIP project on a 110-acre flood irrigated hay meadow outside of Burns. The property had what Reponen calls orphaned ditches. “Basically, some were functional and some weren’t, and I had no real way to control water,” he said.

Reponen said that with his water rights, he gets water about every other year. The erratic water schedule made it hard to water his field properly, so his goal was to create a way to water the field in increments so that he could water perhaps a quarter of the field and not worry about the other three quarters.

The NRCS engineers recommended some ditch work as well as the installation of concrete structures and culverts with slide gates. “All those structures allow me to tailor my irrigation to the amount of water I get that year,” he said. The expertise from the engineers who have so much knowledge about the ins and outs of flood irrigated fields was invaluable, Reponen noted.

A local contractor is helping him implement the plans that he and the NRCS engineers created. Reponen said that he appreciated being involved in the process. “The NRCS was really good to work with because they asked what my objectives were and if I had any ideas. Then we walked the ground and pointed out things. It was a good partnership where we just developed something that would work for everybody,” he said.

Last year, Reponen said he didn’t get any water to work with, but he hopes he’ll get to see the results of the project this spring and learn how to manipulate the water more efficiently. “It’s a win-win, where I can grow some hay, but it also provides water for ducks and geese, and so now I have the opportunity to manage it.”

This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney Basin Wetlands Collaborative.

