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Newly seeded and irrigated pasture at the Falls Creek Ranch in the Pahsimeroi Valley was enhanced with a K-Line mobile irrigation system. The project was funded with a WQPA grant. (Photo courtesy Tori O'Neal/Falls Creek Ranch)

WQPA GRANT FUNDS NEW NEW K-LINE IRRIGATION SYSTEM FOR PAHSIMEROI VALLEY CATTLE RANCHER

By Steve Stuebner

Tori O'Neal has a cow-calf operation in the Pahsimeroi Valley, and she's working to add more value and diversity to her operation with sheep and chickens.

O'Neal, who is a supervisor on the Custer Soil and Water Conservation District, has seen how Water Quality Program for Agriculture (WQPA) grants have been used to fund irrigation improvements for landowners – both from a water quantity and water quality perspective – in recent years.

The O'Neal's Falls Creek Ranch has several irrigation pivots already in place, but the circular pivots didn't cover the land for a full 360 degrees. There were about 30 acres of flood-irrigated land where O'Neal thought she could add more seeding and improve the irrigation to increase the size of her pastures for cattle and sheep.

She worked with Jake Connelley, SWCC Water Quality Planner, on behalf of the Custer SWCD to apply for a WQPA grant in the spring of 2024. High Country Irrigation, based in Mackay, designed a new irrigation system for those areas that needed more irrigation coverage with a K-Line system and provided a cost-estimate for the grant.

A $99,440 WQPA grant was approved by the Idaho Soil and Water Conservation Commission for the Falls Creek Ranch project in

K-Line sprinklers water an improved pasture field at the Falls Creek Ranch. The additional pasture areas should allow the ranch to expand their cattle herd in the future, plus support their sheep herd. (photo by Tori O'Neal)

June 2024. The K-Line system was installed in May of 2025.

"I'd been seeing some other WQPA irrigation projects get approved, so I thought it would be worthwhile to go after a grant for our ranch," O'Neal said. "It was exciting to get our grant approved and the project installed. It would not have been possible for us to finance the whole thing, but with the WQPA grant, it made the project feasible."

O'Neal still had to fund about one-third of the project, approximately $32,680.

She noted that many irrigation projects in the Pahsimeroi Valley and Upper Salmon River watershed get funded with anadromous fish funds if there are project features that benefit salmon and steelhead habitat. But since her project doesn't have any direct relevance to anadromous fish, she knew she'd need to find an alternative funding source.

"The WQPA grant program is really a huge opportunity for folks," she said. "I really like the K-Line system. It's a pretty easy set up. You can drag around the irrigation lines and sprinkler pods with a four-wheeler to move it to a different location, so it's pretty easy to manage."

The K-Line system has 4-inch water lines and multiple sprinkler pods attached. High Country Irrigation created a custom plan for the unwatered corners next to the pivots. She typically moves the lines once a day. All told, she has more than 4,000 feet of new sprinkler line with multiple sprinkler pods spaced evenly along the line.

Now O'Neal is seeing the improved irrigation system greening up with grass and forbs for her livestock. "We are seeing tons of green-up happening on what was pretty marginal ground that had been dormant before," she said. "It's amazing how much green-up has

COMMISSION FUNDS 21 WQPA GRANT PROJECTS IN FY '26

The Idaho Soil and Water Conservation Commission's Water Quality Program for Agriculture (WQPA) grant program continues to be popular with landowners and conservation districts as another 50 project proposals were received for fiscal 2026, representing applications from 36 of the state's conservation districts.

A total of $1,125,637 was available for FY '26 projects. The SWC's Board of Commissioners and staff evaluated the projects and awarded the grant funds to 21 projects and districts statewide.

The WQPA project awards include $33,250 for a new 10-foot, No-Till drill for which the Custer Soil and Water District applied and received funding. The Commission also funded projects that will improve and modernize irrigation systems, install livestock best management practices, and improve soil health statewide.

Custer SWCD Administrator Karma Bragg said the no-till drill will be available at no charge in the first year to encourage use of the equipment. After the first year, rental or lease fees will be used to establish a maintenance and replacement fund to enable the program to be sustainable, she said. This project will include outreach and education actives (e.g. workshops and/or field tour).

"No-till/direct seeding will establish desired rangeland species, crops, and multi-species cover crops in the District's service area, providing an essential piece of conservation equipment to farmers and ranchers to become familiar with no-till technologies and grow no-till methods for the area," the Custer grant application said.

"We would utilize technical support from the Natural Resources Conservation Service (NRCS) for making recommendations to cooperators to use the no-till practice for their properties. The district would request technical assistance from the NRCS to complete implementation plans for the landowners."

In general, no-till drills will allow landowners to reduce the transport of soil particles caused by wind and water. The drills also reduce sheet and rill erosion on sloping and lighter-textured soils. Soil structure is preserved, organic matter is retained, and biological activity is increased, resulting in long-term improvements in aggregate stability and water infiltration.

No-till drills also enhance residue management systems that reduce erosion, improve soil health, and enhance water retention—critical outcomes for Idaho's agricultural sustainability in both irrigated and dryland systems. The long-term soil savings and resource protection benefits justify the investment and integration of this practice on working lands, officials said.

No-till systems can increase water infiltration rates by 2-4 times while reducing evaporation by 20-40 percent through maintained soil structure and surface residue. No-till fields typically retain 4-5 more inches of plant-available water throughout the growing season. This can be a valuable tool especially in drought years.

For more information about the WQPA grant program, contact Loretta.Strickland@swc.idaho.gov.

O'Neal K-Line irrigation project (continued)

occurred with more forbs and grasses. It's exciting to see that. I'm planning to do more seeding next year to improve the forage."

Right now, her cattle are grazing on summer range in the Salmon River Mountains on Bureau of Land Management and U.S. Forest Service grazing allotments. She's growing more pasture that will be used for feeding cattle in the winter. "This is going to be long-term forage for winter feed," she said.

O'Neal markets her cattle through Desert Mountain Grass Fed Beef.

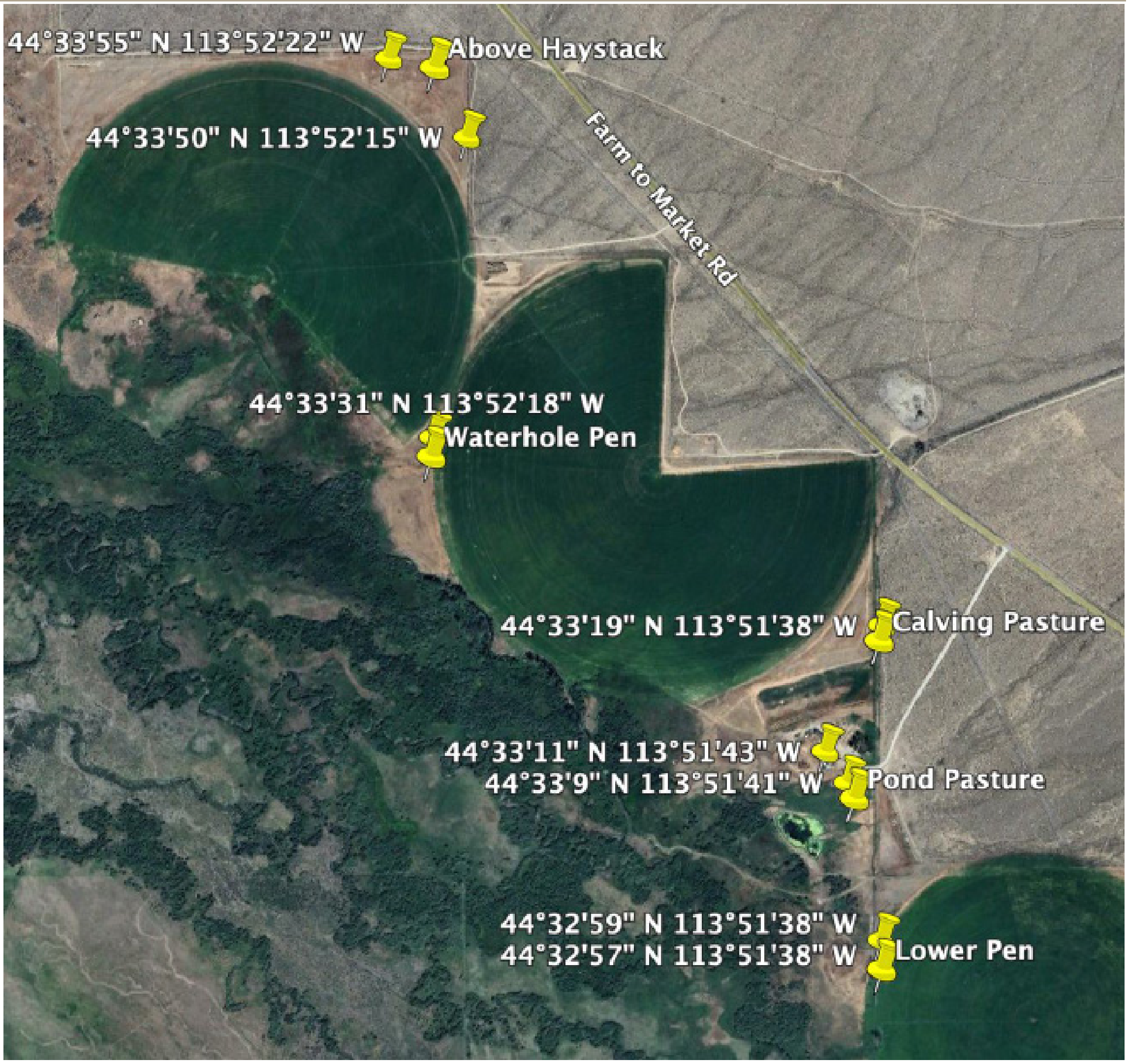
"It's great to have some younger people like Tori joining our Board of Supervisors," said Karma Bragg, Administrator for the Custer SWCD. "She's doing a phenomenal job."

Previously, the Falls Creek Ranch had a flood irrigation system serving the areas not covered by the irrigation pivots, O'Neal said. There wasn't enough surface water to last through the summer months. And the ground was difficult to irrigate, while heavy erosion was occurring.

The new K-Line irrigation system is going to benefit water quality in the Pahsimeroi River area, according to the grant application. The project is expected to reduce sediment runoff by 17.3 tons per year.

And the new irrigation system is more efficient, stretching water supplies to last longer through the summer months, a big plus for the ranch. Overall, the project will save about 9.8 inches of water per month, the grant application said.

"The overall goal of this project is to implement a more efficient irrigation system to improve water quality in the nearby stream, and to improve the water quantity on the property," the grant application said. "This conversion will also allow the landowner to implement more conservation practices such as cover cropping for cattle forage since it will be a more efficient watering system."



Yellow pins on project map shows where the new K-Line irrigation system was installed next to the pivots. (Map courtesy Custer SWCD)

More Water quality benefits

The O'Neal project is located directly above Patterson/Big Springs Creek which flows into the Pahsimeroi River, about two miles downstream. The Pahsimeroi River is on the Idaho Department of Environmental Quality Total Maximum Daily Load (TMDL) list for sediment, temperature and bacteria. This project directly impacts two of these issues by eliminating runoff into Patterson/Big Springs Creek, Bragg noted. The Pahsimeroi River is also a domestic water supply, and is used by salmonids for spawning.

The most recent TMDL Agricultural Implementation Plan states that "Areas of agricultural lands that contribute excessive pollutants to water bodies are defined as "Critical Areas" for BMP implementation," the grant application said. "Critical areas are prioritized for treatment based on their location to a water body of concern and the potential for pollutant transport and delivery to the receiving water body." (Rob Sharpnack, 2020,pg. 27)

"These are later defined as surface irrigated cropland and pastureland. The conservation benefits from this project not only improve water quality and quantity, but improve the overall land health of the farm as well," Bragg said.

For more informatioin about the project, contact Bragg at cswcd@ custertel.net or 208-879-4428.

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