



*The Bruneau River District sees a wide variety of boats at its Invasive Species check stations in Bruneau and Marsing.*

## BRUNEAU RIVER DISTRICT STAYS BUSY WITH MULTIPLE PROJECTS - FROM WATER TO ENERGY

By Steve Stuebner

The Bruneau River Soil Conservation District is staying busy with multiple projects going on to conserve water, guard against aquatic invasive species, work on stream-restoration and provide information and education on the benefits of on-farm solar energy development.

The Bruneau River District is the first line of defense in the fight against aquatic invasive species for vehicles with boats traveling into Idaho from Nevada on Idaho 51 and U.S. 95 by operating two boat-check stations – one in Marsing and one in Bruneau. The District has been operating those check stations for 14 years.

The boats come from as far away as Florida, Maine, the Midwest, Texas and California, says Rayola Jacobsen, who manages the invasive species stations for the Bruneau River District.

“I never imagined that someone would tow a boat all the way from

Florida to visit C.J. Strike Reservoir,” she said. “We get a lot of people from California at the Marsing station. People are a little worried about why they need to stop, but we just tell them, we’re glad you’re here. The hot wash is free.”

The Bruneau River District boat-check stations are among 18 statewide that check boats of all kinds for aquatic invasive species, specifically quagga mussels and zebra mussels. The small mussels can be tiny and hard to see with the naked eye. The universal method to rid boats of the mussels is to do a thorough hot water wash, over 140 degrees F. The check stations are equipped with the equipment to do so.

“Clean, Drain and Dry” is the mantra.

In 2021, the two Bruneau Stations inspected 7,726 watercraft. Statewide, 112,560 boats were inspected, and 41 boats with invasive mussels were intercepted.

First brought into the United States by accident in the bilge of barges from the Ukraine in 1989, quagga and zebra mussels have since invaded the lower Great Lakes, Lake Mead, Lake Havasu, and Lake Mojave on the Colorado River, and a number of water bodies in California. Once a river or lake is infested, the mussels cause multiple problems, filtering large amounts of phytoplankton and suspended particulates from the water. By removing phytoplankton, they decrease the food source for zooplankton, altering the food web that fish and aquatic life depend on.

The invasive mussels also can attach to docks, pipes, boats, propellers, bilges, etc., and clog water-intake structures, causing widespread economic damage.

Idaho has had a strong statewide program for more than 10 years to safeguard its pristine rivers, lakes and reservoirs from the invasion of quagga or zebra mussels. The program

is run by the Idaho State Department of Agriculture, with a number of conservation districts working as partners statewide.

“This is a very important regional and national effort,” Jacobsen points out. “We’re part of a bigger network that operates in the West, and when infested boats are heading our way, we get a head’s up that they’re coming and we can intercept them.”

### Solar energy on the farm

Bruneau River District Chairman Russell Schiermeier has been doing a fair bit of education outreach with fellow Southern Idaho farmers after installing an 800-kilowatt solar power system in the unused portions of his farm – places like pivot corners and uncultivated dry spots.

“I’ve talked to quite a few farmers about it; I’ve given about 20 tours in the last two years,” he says.

“I wanted to keep my ag fields productive and use other areas for the solar panels,” Schiermeier says. “I see it as a potentially huge opportunity for farmers who have some open land available. They could be adding value to their farm while causing the least amount of impact on your existing operations.”

So far, he is happy with the solar system. It’s been in operation for about two years. He’s cut the amount of electricity he uses by two-thirds – meaning the solar panels reduce his power bills by that amount, saving money, he said.

Idaho is the second-best state for solar days nationwide, he said. “We have the same number of solar days as Florida.”

There is still a large capital cost involved when investing in a solar system, which can be partially recouped through a 26 percent federal tax credit, and other programs available through the USDA Rural Energy for America Program, he said.



*Bruneau River District Chairman Russell Schiermeier’s solar energy system on his farm uses open land at pivot corners and other unused ground for the location of the solar panels. (photo courtesy Russell Schiermeier).*

Schiermeier, a former mechanical engineer who raises alfalfa, corn, wheat and peppermint on his farm, is working with USDA NRCS officials to see if they might add financial incentives or other benefits for renewable energy investment in the EQIP program.

Looking ahead to the emerging market of carbon credits and potential carbon mandates, he sees a number of advantages for farmers who engage in cover-cropping, strip-tilling, soil health practices and renewable energy development.

“Depending on how carbon markets develop, there could be economic values associated with our farming practices and trying to be more efficient with water and energy use,” he said. “And that makes you feel good about farming.”

### Bruneau ground water a concern

Longtime Bruneau River District Supervisor Sid Erwin has been working on organizing a Bruneau-Grandview Ground Water Advisory Committee over the last year or so to work on ground water issues in the

area. The Idaho Department of Water Resources will provide a supporting role for the effort.

There are concerns about over-pumping of the aquifer underlying the Bruneau and Grand View areas. Erwin sees it as a problem with several large leaky wells that were drilled in the 1950s and whose casings are leaking.

Another effort is for farmers to be more efficient when irrigating, getting the water closer to the crop, Erwin says. “If everything was perfect, no

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*Example of a low-tech structure installed in Cottonwood Creek (photo courtesy Anabran Solutions).*

pivots would have an end gun, and we'd be increasing efficiency by applying water close to the crops," he said.

IDWR will be holding meetings with the advisory committee in the coming months to go over the issues causing aquifer decline and work with local farmers to develop solutions to reverse the trend. The project is still in the early stages.

Another District initiative that Erwin is pleased with is sharing a new building in Bruneau with the Bruneau Quick Response Unit (BQRU), which is staffed by Emergency Medical Technicians, (EMT's) who coordinate the use and maintenance of the emergency medical services (EMS) building. This building provides a location for meetings and by renting an office in the building for use by the BRSCD staff, the arrangement provides support to the BQRU and the community.

"I'm as proud of that as anything right now," he said.

#### **Stream restoration with low-tech**

#### **structures**

Bruneau Rancher Chris Black, a Bruneau SCD supervisor, worked together with a number of state and federal agencies to install beaver dam analogs (BDAs) in Hurry Up Creek and Hurry Back Creek in the Owyhee Mountains several years ago. The project is ongoing, and Idaho Fish and Game and the U.S. Fish and Wildlife Service officials have added more structures to the streams since then.

BDAs mimic beaver dams in that locally available woody materials like willows are laid down horizontally against vertical wooden posts pounded into the streambed to hold water back in a stream. The BDAs hold water back temporarily, and slowly release it over time.

"They're backing water up, they're creating habitat for spotted frogs, for sage grouse, for beaver," Black said in a Life on the Range feature story and video published in August 2019.

Black wanted to slow down the runoff in the ephemeral streams, expand the water table around the stream, and provide more habitat for wildlife,

more forage for his cattle, and try to make things better for everything.

"These meadows are like a sponge," he says. "They take the water, and they hold it, and release it slowly into the system. So we don't get that big rush in the spring, when the springs are active, then run hard and dry up. And then all you have is a dry meadow."

The BDAs were especially helpful in the summer of 2021, Black says, when Idaho became gripped by an "exceptional" spring drought, followed by triple digit temperatures in late June, July and early August. "I had water this spring and it ran into early summer," Black says. "I had water for frogs, livestock and everything."

The positive experience with Black's conservation project has led to another project using a wider array of low-tech in-stream structures to restore three streams deep in the southern part of Owyhee County, near the Nevada border. It's called the "Polderwood" project, reflecting the combined names of Pole, Alder and Cottonwood creeks.



It's a partnership project with Simplot Land and Livestock led by Josh White with the U.S. Fish and Wildlife Service. The Bruneau River District is serving as the fiscal agent. It's an "all hands, all lands" project, meaning that multiple local, state and federal agencies are working together with the Simplot Company on a landscape-scale conservation project that's meant to transcend all land boundaries.

Other partners include the Idaho Department of Fish and Game, Idaho Governor's office of Species Conservation, Idaho Department of Lands, Bureau of Land Management, and the Conservation Commission. Anabran Solutions, a private company with strong expertise in building and designing low-tech structures to restore streams, is the

project contractor.

Funding for the project came from the Partners in Fish and Wildlife program, the National Fish and Wildlife Foundation, and the Idaho Sage Grouse Action Team, White said. The location covers 1,700 acres with rangeland and irrigated pasture in a remote setting. There are five occupied sage grouse leks within a 3.5-mile radius of the property.

"This is the right place to be working biologically," White said. "To have a project come together like this with so many different partners is a huge win."

In-stream construction work is under way. About 40 low-tech structures already are in place. They plan to treat about 10 miles of the streams over time, and right now, the streams are all

dry, he said. "It's weird to be building structures in a dry stream bed."

Ah, but things should be wet by next spring. The projects will store water in the creeks, and create habitat for birds and wildlife. Spotted frogs, redband trout and sage grouse will all benefit, White said. The streams have some down-cutting issues, so Anabran designed the in-streams structures to help raise the level of the stream and the water table over time, he said.

"We're excited to participate to enhance these water systems," said Darcy Helmick, manager of Simplot Land and Livestock. "We're excited to work with all of our partners, see how this works and potentially apply it to other places."

## FRANCES PERKES RETIRES AFTER 37 YEARS WITH BUTTE SWCD

After 37 years, Frances Perkes retired from the Butte SWCD in September. When Frances started with the District in 1984, she said she had put her name in for consideration to replace the outgoing District Clerk and did not hear anything back until a couple weeks later when she received a call, asking if she was coming to work?

She hit the ground running and worked hard to assist the board and NRCS staff to meet the goals of conservation in our District. Frances has been instrumental in youth education outreach at the District level and the state Envirothon competition.

Frances will be missed by all. She plans to relax and follow her favorite sports teams this fall. Please send well-wishes to [fperkes@atcnet.net](mailto:fperkes@atcnet.net).



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