



Contractor begins placing heavy rock at the base of an eroded streambank on Squaw Creek, near Ola. The project was badly needed because the bank erosion threatened the integrity of the Younie irrigation ditch. (Meghan Brooksher photo)

SQUAW CREEK DISTRICT COMPLETES TWO STREAMBANK-STABILIZATION PROJECTS, BUILDS COMMUNITY GARDEN IN LOWMAN

By Steve Stuebner

The Squaw Creek Soil Conservation District recently completed two streambank-stabilization projects on Squaw Creek, which provides irrigation water to landowners in the Ola Valley near Emmett. The District also recently built a community garden in Lowman with a number of project partners.

The Squaw Creek District, formed in 1940, serves a large area that

stretches from Gem County to Boise County, covering a total of 1.45 million acres. The district includes Sweet, Horseshoe Bend, Garden Valley, Idaho City and Lowman. Private land takes up about one-third of the district.

Primary agricultural uses in the district include livestock grazing on rangelands, forestry, and irrigated cropland. In 2025, the District listed its top priorities as:

- Service to the Cooperators
- Weeds/Urban growth
- Rangeland
- Forest Health
- District Operations/Information and Education

The streambank-stabilization projects on Squaw Creek were both badly needed to reduce sediment flow into the creek, stop the loss of farmland, and improve water



Left, rock riprap and willows are in place for the Younie Ditch streambank stabilization project. Right, another view of the stabilized streambank, looking upstream. (Photos by Meghan Brooksher/SWCC)

quality, officials said. In the case of the Younie Ditch project, the streambank project prevented the bank from eroding to the point where the Ditch could have fallen into the creek.

“The creek bank has been sloughing off completely and taking the ditch out,” said Robin Rood, a local farmer and rancher in the Ola Valley. “That would have been a bad deal. But the project turned out really nice. It’s all good now.”

Squaw Creek is a 4th order 305 (b)-listed perennial stream, with water quality issues, such as bacteria (*E. coli*), temperature, and sediment, District officials said. A tributary of the Payette River, Squaw Creek flows into the upper portion of Black Canyon Reservoir, below the Montour Wildlife Management Area.

The Younie Ditch Project is located roughly 20 miles north of the Payette River and Black Canyon Reservoir. The Ditch provides irrigation water to 10 landowners and 732 acres of cropland on the western side of the Ola Valley. The Squaw Creek streambank had eroded to the point where the cutbank was nearly 20 feet high.

Heavy rock rip-rap and willow cuttings were placed at the bottom of the eroded streambank for 485 linear feet to stop the erosion. Three bank barbs also were installed to deflect the current away from the streambank.

Bill Lillibridge, project engineer for the Idaho Soil and Water Conservation Commission, said the project location was challenging because of the height of the cutbank, and the Younie Ditch being just several feet away from the top of the streambank.

“The bottom of the stream channel is bedrock in that particular location,” Lillibridge said. So you couldn’t dig down deeper below the bedrock to anchor the streambank like you would normally do. So we built up the rock from the base with a lot of willows and soil to build a buttress.

“These things are kind of half art and half engineering,” he said.

The work was completed in the fall of 2024.

“It would have been a total disaster to lose that Younie Ditch,” Rood noted.

The newly stabilized Squaw Creek

streambank held well in the following spring, even though a big debris flow came down the creek from the massive and destructive Paddock Fire.

“The project was visited one year later and found to be successfully holding, even after a year of flash floods from the burn scars in the area,” officials said.

The Younie Ditch project had the following water quality benefits:

- Decreased sediment load by 108 tons/year
- Decreased phosphorus load by 173 lbs/year

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Contractor works on the Spiker streambank-stabilization project, which treated 460 feet of the streambank. Below right, the Spiker project a year later, showing the willows flourishing. (Photos by Meghan Brooksher, SWCC)

- Decreased nitrogen load by 346 lbs/year

The project was funded by a \$60,000 Water Quality Program for Agriculture (WQPA) grant, with a cost-share of \$20,000 covered by the landowner.

Vaughn Spiker Project

Nearby, landowner Vaughn Spiker worked with the Squaw Creek District to stabilize 460 feet of streambank and install 530 feet of riparian fencing. The Squaw Creek streambank on Spiker's property had been steadily eroding for many years, causing sediment to flow into the stream and losing his property.

"It was taking away about a foot of my property every year," said Spiker, a retired rancher who leases his property for a cow-calf operation. "I've lost a lot of hay ground over

the last 45 years. Every little bit helps, you know."

The erosion problem also was undermining an existing riparian fence that kept cattle out of Squaw Creek. Hence, 530 feet of new fencing was installed to solve that issue. The fencing was set back about 12 feet to protect the willows and rock riprap bank repair from getting impacted by cattle use.

"That bank repair was an absolute life-saver," Spiker says. "It was crucial to do the project. I want to thank everyone who help put the project together, including Leanne at our District, the District Board of Supervisors, Bill Lillibridge with the design and engineering, Meghan Brooksher with the Commission, and the contractor."

The Spiker project had a total cost



of \$52,621, with a WQPA grant covering \$33,098, Squaw Creek District, \$3,310, and the landowner provided \$16,213.

The project had the following water quality benefits:

- Decreased sediment load by 51

tons/year

- Decreased nitrogen load by 163 lbs/year
- Decreased phosphorus load by 82 lbs/year

The challenge with the Spiker streambank-stabilization project was that the bank itself was saturated by flood irrigation in the adjacent field, Lillibridge said. So he used a heavy amount of willows with the rock riprap placement so the willow roots could help hold the soil in place.

“That solution was best for a wet streambank,” he said. “The willows are buried beneath the rocks and they’re exposed on the surface of the rocks as well so they’ll grow in multiple places.”

Alan Darnell of Darnell Construction was the contractor on both streambank projects. He received a “Cooperator of the Year” award from the Commission for his work.

Lowman Community Garden

The Squaw Creek District proudly sponsored a community garden in the small mountain community of Lowman, Idaho. The garden is located at the Lowman School grounds and will be used by students for hands-on horticulture education and by community members.

“There are only 2-4 students this year ranging in age from kindergarten to 5th grade in their historic one-room schoolhouse,” said Leanne Buck, Squaw Creek administrator. “That’s why we



Project partners plant a variety of vegetables and flowers in the new Lowman Community Garden. Students attending Lowman School will use the garden for hands-on learning. (photo by Leanne Buck, Squaw Creek District administrator)



opened it up to the community to help with the project. Everyone in the community is very excited about it.”

The District led the project in collaboration with the Lowman Ranger District, Boise National Forest, to help install the garden boxes, fill them with soil, and complete the planting. Other sponsors for the project include Gem Supply Co-op (plant donation), Charters Farms (soil donation),

and High Mountain Wood and Specialty Services (hauling soil).

“The District is excited to work with the Lowman community and provide this resource, with hopes that its use will be beneficial for years to come.”

Steve Stuebner writes for Conservation the Idaho Way on a regular basis.

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