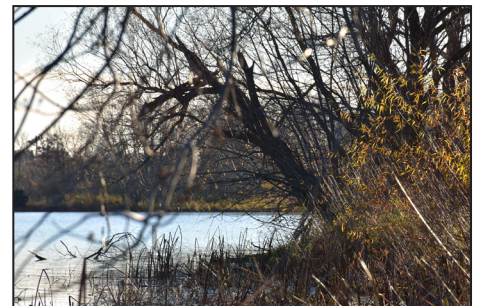




Pine SWCD targets Snake River water quality via forestry work



PINE CITY — With a new forester and a new funding source, the Pine County Soil & Water Conservation District (SWCD) is poised to work with landowners within the Snake River watershed on forestry protection plans with water quality benefits.

Pine County is the fiscal agent for the Snake River watershed, a 1,010-square-mile area

encompassing most of Kanabec, parts of Pine, Aitkin and Mille Lacs, and bits of Isanti and Chisago counties. The Minnesota Board of Water and Soil Resources (BWSR) awarded the Snake River Watershed Plan Partnership a non-competitive \$1,024,500 Watershed-Based Implementation Funding (WBIF) grant in 2024. Together, the Pine SWCD and Pine

Top: Cheryl Smetana McHugh shared a laugh with Pine SWCD forester Eddie Johnson, left, and Nick Foss, a forester who works in Pine and Kanabec counties, during a Nov. 8, 2024, walk through a 3-acre site on the Snake River (**bottom right**) in Pine City. With the SWCD's technical assistance and financial contribution that offsets the cost, McHugh is clearing the site (**bottom left**) of invasive buckthorn. Grazing goats and a crew with chainsaws completed the initial work. Eventually, McHugh aims to plant soil-stabilizing native forbs. **Bottom center:** The crew chemically treated buckthorn stumps. **Photo Credits:** Ann Wessel, BWSR



Cheryl Smetana McHugh, front and center, has worked with, from left, Boden Smetana (her nephew), Ashley Wiedemann and Ethan Leibel of Pine Towne Services, which provided the grazing goats; shared-services forester Nick Foss and forester Eddie Johnson of the Pine SWCD; and Brad Miller, who managed the chainsaw crew; in the first year of a Pine SWCD-grant-supported three-year brush management project that will help to improve water quality of the Snake River.

County administer the grant.

The work SWCD staff members are doing now will set up landowners for potential WBIF funding. The Snake River watershed partnership makes cost-share available for forestry related practices.

“Healthy, vigorous forest cover helps provide protection from soil loss and erosion, increases soil health, protects water quality (of) lakes, rivers and streams as well as water (storage) capacity,” said Pine SWCD Manager Paul Swanson. “This protection of forestland is really critical in protecting our water resources in the county.”

Swanson referred to Minnesota Department of Natural Resources [research](#) linking water quality to watershed disturbance. The goal: permanently protect at least 75% of a watershed.

Seventy-five percent protection in priority areas is a long-term goal stated in the [Snake River Comprehensive Watershed Management Plan](#) (CWMP), too. Among the CWMP’s 10-year goals: implement forestry best-management practices on at least 800 acres, complete forest stewardship plans on 5,000 acres within priority areas, and increase protected acres by 5% to 10%.

“Since Pine County is really in the southern part of the forested region of the state, we are focused on looking at land conversion and ... sprawl that’s coming up from the metro area,” Swanson said.

“One of our primary focuses is protecting forest cover in areas where we’re seeing (areas at risk) of development, to try and protect forest cover to help maintain the higher water quality that Pine County has — while still being cognitive that development is important,” Swanson said.

The Kanabec and Pine SWCDs used WBIF funds to hire Nick Foss, a Foley native with a forestry degree from the University of Minnesota, to work within the Snake River watershed. He started in August 2024. Pine SWCD staff and Foss are focused on informing landowners about forestry protection options.

Cheryl Smetana McHugh’s ongoing buckthorn removal is the first forestry project within the Pine County portion of the watershed since the CWMP was approved. It’s also the SWCD’s first experience with biological control — goats, in this case.

The SWCD used its own funds to support the work, a continuation of a project

McHugh started on her own in 2023.

That year she hired

Pine Towne Services to bring in its goat herd. A three-person team then cleared and burned 40 piles of buckthorn and chemically treated the stumps. She read about the Pine SWCD grant opportunity in the SWCD newsletter.

Her application was approved after Pine County SWCD forester Eddie Johnson inspected the 3-acre site in Pine City and determined the proposed brush removal project was viable. The property is situated on a point that juts into the Snake River.

“Buckthorn, if you let it grow it won’t let anything else grow,” Johnson said. That in turn results in bare ground. “So any time it rains, that soil can run into the river. Since this site is right on the river it’s very important that we not let that happen.”

Removing the buckthorn will allow soil-stabilizing native species to grow, creating a buffer that will help to prevent



**CLEAN
WATER
LAND &
LEGACY
AMENDMENT**

**YOUR
Clean
Water
Fund
AT WORK**

Thirty-three percent of sales tax revenue from the Legacy Amendment, which Minnesota voters passed in 2008, is allocated to the [Clean Water Fund](#). Clean Water Funds may only be spent to protect, enhance or restore water quality in lakes, rivers and streams, and to protect groundwater. Watershed-Based Implementation Funding is funded solely by the Clean Water Fund. The Kanabec and Pine SWCDs used part of the \$1 million WBIF grant BWSR awarded to the Snake River Watershed Plan Partnership in 2024 to hire shared-services forester Nick Foss to work within the watershed.

VIDEO: [“Forestry in the Snake River Watershed”](#)

soil and the pollutants it carries from eroding into the river. That benefits both water quality and soil health — goals of the SWCD and the watershed. And, Johnson added, it will serve as an example of what's possible.

The SWCD grant is a three-year contract with a 10-year maintenance commitment. Grant-backed work in 2024 removed seven dumpsters full of buckthorn — a three-person team used a skid-steer loader and chainsaws, and then chemically treated the stumps to prevent regrowth. The goat herd returned for about 10 weeks. Ethan Leibel of Pine Towne Services said about 15 goats grazed a quarter-acre at a time, spending about a week per area.

The work to date has cost about \$20,000.

"This has been a major investment that I hadn't really planned for, so the cost-share has made it possible for us to do this project. And it's been really nice to have the expertise of foresters and the department who really have resources to provide advice, consult, walk around, be here to have a hands-on look at the property and the possibilities," McHugh said.

The SWCD calculated assistance equivalent to the USDA Natural Resources Conservation Service's (NRCS) current flat rates for brush management. For McHugh, that worked out to \$5,250.

The progress was clear on an early November afternoon, when McHugh strolled through the site with SWCD and Pine Towne Services staff. A previously obscured river channel and the road were visible through the trees.

"Before, it was extremely

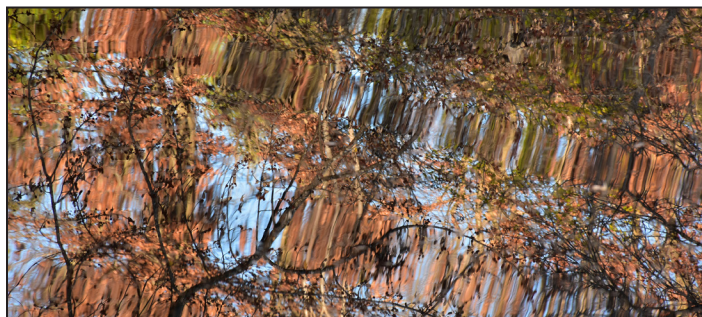


A road divides the cleared site and a buckthorn-infested woods.



“Healthy, vigorous forest cover helps provide protection from soil loss and erosion, increases soil health, protects water quality (of) lakes, rivers and streams as well as water (storage) capacity.”

— Paul Swanson, Pine SWCD manager



Watershed Details:

WATERSHED PARTNERSHIP: Includes Kanabec, Pine, Mille Lacs and Aitkin counties and SWCDs. Kanabec SWCD-based Snake River Watershed Coordinator Mary Poelman started in August. Isanti and Chisago counties chose not to participate in the partnership because the watershed only includes bits of those counties.

PINE COUNTY WATERSHEDS: Three other watersheds include parts of Pine County: the Kettle/Upper St. Croix, Lower St. Croix and Nemadji river watersheds.

WATERSHED-BASED IMPLEMENTATION FUNDING: The current grant funds are available through Dec. 31, 2026.

dense. You could not see through it. You couldn't see the river and you couldn't see the road. Now after the goats

have gone through and the mechanical work has been done, you can see in every direction. You can see the tree

species, looking up; you can see what's growing on the ground," Johnson said.

McHugh said after another round of goat grazing this spring, work would focus on stump removal.

When brush management is complete, McHugh said she planned to work with SWCD staff on restoration, bringing variety to the ash monoculture. This spring, she was starting to envision how the restoration might take shape.

"We're going to rejuvenate this forest. We're going to take down undesirable trees to the best of our ability while still making it a natural-forest-looking space. We're going to remove some stumps. We're going to plant some desirable plant material on the forest floor, and then I plan to come out with my grandchildren and hike," McHugh said in November.

Swanson said native habitat restoration like the post-brush-removal project McHugh has planned could potentially qualify for WBIF if it demonstrated water-quality benefits. The Snake River watershed has prioritized WBIF funding for projects that lie within high-priority forestry areas, and for those with a woodland stewardship plan (available to landowners with at least 20 forested acres).

"I was a Girl Scout, and we're always taught to leave things in a better way than you found them. And I'm a Master Gardener and so I think I could have wildflowers out here or ferns or Solomon's seal or other understory shrubbery with berries that would attract birds," McHugh said. "I'm just really hoping to make this a lovely place."

Written by Ann Wessel, BWSR conservation marketing coordinator



The Minnesota Board of Water and Soil Resources' mission is to work with partners to improve and protect Minnesota's land and water resources. www.bwsr.state.mn.us