

Taking conservation to the trees



Winona County landowner Jim Christenson is removing invasive buckthorn from his land within the Money Creek watershed with assistance from NRCS. The dead buckthorn shrubs at the center were previously sprayed. Soil health will benefit from the stabilizing groundcover and increased infiltration that comes with removing buckthorn, which opens the forest canopy and allows native shrubs and forbs to regain their hold. Christenson had previously enrolled in the federal Conservation Reserve Program to buffer the stream with filter strips. He's also planted wildlife food plots, including bee-friendly alfalfa and clover.

Photo Credit:
Minnesota DNR

The Watershed Conservation Planning Initiative, a BWSR-NRCS-SWCD collaboration, encourages landowners to take a holistic approach. In the Root River watershed, it's resulting in more forest stand and streambank improvements that benefit both wildlife and water quality.



WINONA — Jim Christenson was looking for more ways to improve the bluff-and-bottomlands property he managed for wildlife when Dan Wermager contacted him about a big-picture approach to conservation in the Root River watershed.

Wermager is one of seven conservation planners across Minnesota hired through the Watershed Conservation Planning Initiative (WCPI). He's based at Houston County's Root River Soil & Water Conservation District (SWCD), where much of the work in his previous role there centered on cropland.

"We're reaching out to a new demographic of landowners and getting more people involved in conservation," Wermager said.

He still works with farmers on erosion



Wermager

control and other agriculture-related projects and practices. But the WCPI's comprehensive approach also considers conservation measures such as streambank stabilizations and forest stand

improvements within targeted, prioritized subwatersheds.

Christenson focused on removing buckthorn from his land. The invasive buckthorn chokes out native species that feed and shelter wildlife.

"I want to maintain it for wildlife, so we'll always have a place to go and hunt or even to camp," said Christenson, 64, of Lakeville, a manager at the St. Paul branch

of the trucking company Braun's Express.

Since 2001 he and his family have hunted deer and wild turkeys, fished and camped on the land bordered by Money Creek, a trout stream. The 127-acre property in Winona County's Wiscoy Valley lies within the Money Creek watershed — which a local work group previously determined to be a priority within the Root River watershed.

Winona County-based Natural Resources Conservation Service (NRCS) District Conservationist Sue Glende explained why Money Creek was a priority subwatershed:

The creek itself is impaired for turbidity. It contributes sediment to trout streams, which require clear and cold conditions to support fish. It lies within a karst area, which is more vulnerable to groundwater pollution. Conservation work here focuses on preserving groundwater and surface water quality.

Wermager brought in Kevin O'Brien, a Lewiston-based Minnesota Department of Natural Resources (DNR) silviculturalist, to work with Christenson. The resulting three-year forest stand improvement plan calls for buckthorn removal on three sites totaling about 20 acres.

"In the areas we were treating, it was doghair-thick, where a lot of the buckthorn was, on average, 2 inches in diameter and there was probably a buckthorn every 3 feet square. It was very difficult to walk through," O'Brien said.

“ Not everybody is about making every acre pay as far as corn and soybeans. Some people are more wildlife-oriented. In the business we're in, and helping people help the land, we have to look at all aspects of it.

— Sue Glende, NRCS district conservationist



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O'Brien

"Buckthorn makes it almost impossible to hunt. It just gets so thick that the deer can hide, and you can't walk through it."

Since they started work on the plan in 2019, Christenson and his family already have treated 2-acre and 7.6-acre plots with herbicide using backpack sprayers. Next, they'll tackle the remaining 9.3 acres. At that rate, they'll finish well before the three-year plan expires.

About \$8,100 in NRCS assistance will help to offset costs.

"I had already been working myself trying to thin some of the buckthorn," Christenson said. "This was a great thing to get some assistance to eradicate it."

Keeping the buckthorn under control will require follow-up for 10 years or longer.

Part of the plan encourages growth of up to 150 desirable nut-producing specimens per acre by clearing the competing trees that surround them. That, too, will benefit wildlife.

The ideal hardwood mix would include red oak, white oak, shagbark hickory, birch and aspen. Nannyberry, chokecherry, hawthorn and gooseberry would grow in the understory. By opening the canopy, native forbs and sedges such as Pennsylvania sedge, wild geranium, pointed-leaf tick trefoil, Jacob's ladder and Jack-in-the-pulpit would re-establish themselves.

"By encouraging diversity, it always helps the wildlife," Glende said.

Deer and turkeys eat the acorns and other nuts. Berries feed birds and other wildlife. Wildflowers attract pollinators.

"Part of this project was for native pollinators," O'Brien said. "You'd be surprised at how many bumblebees you'll see out in the woods. You would think they would be only in native prairie, but they're out in the woods, too."

Christenson has noticed the canopy has opened up quite a bit in the treated areas. He hasn't tallied how many hours he's spent on buckthorn eradication, which he plans for November weekends after the firearms deer season.

"I go down there. I enjoy the land. I like walking

About WCPI

Dan Wermager is one of seven conservation planners working in watersheds across Minnesota as part of a collaboration among the Minnesota Board of Water and Soil Resources, the USDA's Natural Resources Conservation Service and soil and water conservation districts. The [Watershed Conservation Planning Initiative](#) was designed to help producers gain a comprehensive view of their land and the resource concerns they might have. Planners work with producers to develop a whole-farm assessment. Implementation is voluntary. Plans are meant to increase landowners' readiness to implement conservation practices when the opportunity arises.

around. I kind of do it as a way to get out and relax and enjoy the outdoors and get rid of the buckthorn at the same time," Christenson said. "I anticipate it being something that's going to go on for a number of years."

Wermager, meanwhile, will continue working with landowners in the Root River watershed. Since July 2018, he's contacted 511 landowners and written 85 conservation plans — many of them comprehensive, whole-farm management plans — resulting in 56 landowners establishing about 65 practices.