

Winona County feedlot work tied to trout stream delisting



NINE DELISTINGS TIED TO CLEAN WATER FUNDS FROM BWSR: Details about all nine delistings involving improvements tied to Clean Water Fund grants from BWSR — including seven Twin Cities metro area lakes and a 48-mile-long Wright County segment of the North Fork Crow River — are featured in a BWSR [blog post](#).

PLAINVIEW — A stretch of a designated trout stream in Winona County is slated for removal from the state’s impaired waters list as a result of water-quality improvements — including landowners’ work with Winona County Soil & Water Conservation District (SWCD) staff.

Clean Water Funds from the Minnesota Board of Water and Soil Resources (BWSR) supported conservation work contributing to water-quality improvements that led to nine of the 27 delistings proposed for 2024. In addition to the stretch of Beaver Creek, the nine included seven Twin Cities metro lakes and a 48-mile-long segment of the North Fork Crow River in Wright County.

Minnesota Pollution Control Agency (MPCA) staff responded to comments, and then submitted the list to the EPA, which had 30 days — until May 1 — to respond.

Tucked between tall bluffs in a narrow valley near Whitewater State Park, Beaver Creek is the spot Winona County SWCD resource conservationist Amanda Gentry suggests when anglers ask.

“It’s gorgeous for trout fishing,” Gentry said. She has spent a lot of time in the

county’s streams conducting Aquatic Invasive Species surveys for the SWCD. She also has worked as the SWCD’s feedlot engineer technician.

Clean Water Fund grant-backed feedlot improvements on the blufftops have contributed to water-quality improvements that led to delisting Beaver Creek’s aquatic life impairment. Two projects directly benefited the creek.

One drew from an \$893,950 Feedlot Water Quality Management grant BWSR awarded to the Winona County SWCD in 2011, supporting solutions for manure storage, wastewater and open feedlot runoff.

The second — on Duane and Karen Timm’s farm — drew from local capacity funds the SWCD received in 2020, building a stacking slab for manure storage and installing runoff control from an open feedlot.

The Timms milk 100 Holsteins, raise about 20 Angus cow-calf pairs, and grow about 250 acres of corn and alfalfa. The stacking slab is situated in the heifer yard, about a mile upstream from Beaver Creek.



Gentry

*Goodhue County-based Technical Service Area 7 engineer Kate Bruss engineered Duane and Karen Timms’ project, **left and right**, which treats runoff from a feedlot with 36 to 40 heifers, and provides three months’ manure storage. Amanda Gentry of the Winona County SWCD surveyed the site and worked with the Timms on the concept. With her farm background, Duane Timm said Gentry could suggest workable alternatives. The project built upon the Timms’ previous work with the SWCD just downstream: a dike that retains and then slowly releases runoff, allowing sediment to settle out. **Center:** The most recent work helps to improve water quality in Beaver Creek. **Photo Credits:** Winona County SWCD*

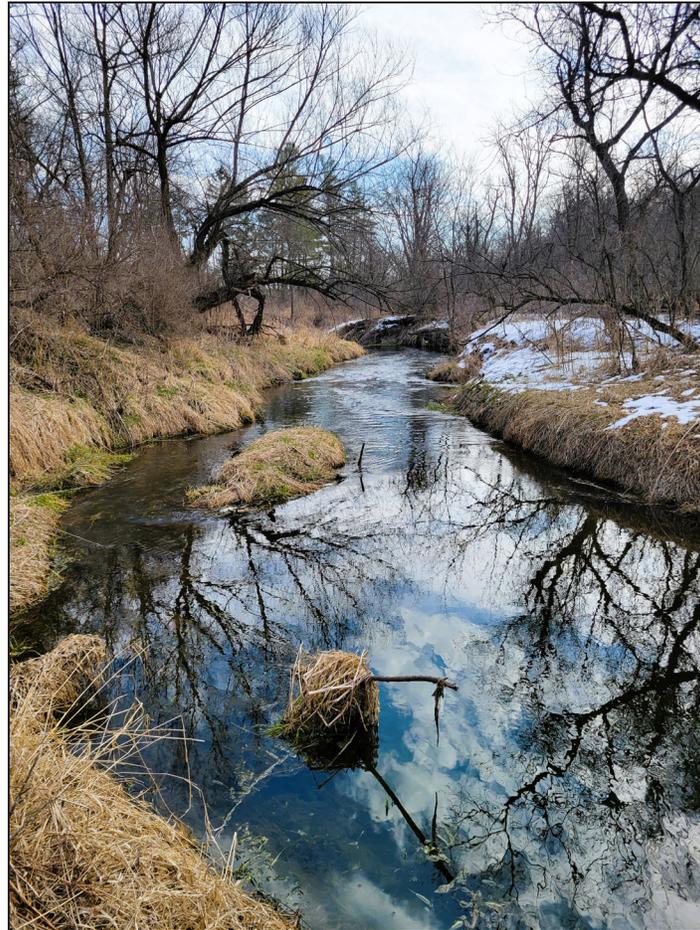
"I had no way of controlling the runoff," Duane Timm said, describing the need for the project. Now, he said, "We're able to keep the manure away from the animals without worrying about it washing off the farm. We can scrape that lot off and not be worried about (it) going down into Beaver Creek."

Designed to hold back the solids, which are scraped and contained until they can be applied when crops need them most, the slab provides three months' storage. The liquids flow through a grass filter strip that treats the runoff.

"It's a feel-good thing," Timm said of the project's role in improving Beaver Creek's water quality. "It was good for our farm as well. We made progress by doing that. We caught valuable nutrients out of manure and spread (it) where needed when we should be (spreading), in a timely manner. But also you can sleep good at night because you're not polluting the water for other people."

Streambank restoration work complements the two farms' runoff reductions. Severe and repeated flooding in the 1930s forced the town of Beaver to disband. Remnants include a town hall and a cemetery in the woods.

"In the 12 years I've been with the district, this is one of the first delistings I've been a part of. I think about the number of practices in that small watershed that have been installed since I've been here, and it's pretty awesome to think about the improvements that have been done, especially up



Winona County's Beaver Creek, a designated trout stream, flows through a narrow valley. The Winona County SWCD's Clean Water Fund-backed work with landowners on feedlots has contributed to water-quality improvements.

MPCA Details

IMPAIRED WATERS DEFINITION:

The MPCA defines an impaired water as one that fails to meet water-quality standards (which define how much of a pollutant can be present before it's no longer considered drinkable, swimmable, fishable or usable in other defined ways) in one or more of seven areas: nutrients that grow algae, sediment that clouds water, bacteria that can make swimming unsafe, unhealthy insect and fish habitat, mercury levels that limit safe fish consumption, PFOS (perfluorooctane sulfonic acid) in fish tissue, sulfate that may affect wild rice production.

IMPAIRED WATERS LIST: Updated every other year, the [Impaired Waters List](#) includes a tab for delistings.

MEETING STANDARDS: Removal from the impaired waters list requires meeting the standard for phosphorus levels, and either Secchi disk readings, which measure clarity, or Chlorophyll-a levels.

MINNESOTA WATERS: They include about 105,000 stream miles, about 12,200 lakes 10 acres or larger, about 4.5 million acres of lakes and about 10.6 million acres of wetlands.

on top of the bluff in the farm fields that drain toward Beaver Creek," Gentry said. "For me, it's one of those victories that you can feel as

though you've had a part in."

By curbing runoff and sediment loss in farmyards and fields, the projects

“I think as a farmer, you just want to do that (conservation). When your ground washes away, it's gone — and that's not what you set out to do.”

— Duane Timm, Winona County farmer, who uses contour strips as a way to curb field erosion

and practices result in phosphorus and bacteria reductions, which translates to better habitat for macroinvertebrates and fish.

"Having these funds in place is just extremely important to be able to make it feasible for these projects to be completed. Without the funding they can't be done; it's just way too expensive," Gentry said.

A feedlot fix with 12 months' manure storage can easily exceed \$500,000.

"In a lot of cases, especially in the recent past, it was hard to fully fund a project with only one funding source. A lot of times we would (leverage) EQIP dollars (Environmental Quality Incentives Program support via the USDA's Natural Resources Conservation Service) and our local capacity or state cost-share dollars to assist a landowner in being able to afford these projects. If they can't afford a project, they can't get a contractor out there to do it, the problem is just going to continue."