

Feedlot upgrade contributes to groundwater protection effort



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GOODHUE COUNTY — When Minneola Township dairy farmer Tony Scheffler installed a manure pit with 14 months' capacity, he gained 15 to 20 hours a week and the ability to apply fertilizer when crops need it most.

By curbing feedlot runoff in the farmyard and the potential for nitrate leaching in the fields, he is helping to protect both surface water and groundwater. That's why the \$450,000 project completed in 2023 was a priority for the Greater Zumbro River watershed partnership, which offset about 75% of the cost with Watershed-Based Implementation Funding (WBIF) from the Minnesota Board of Water and Soil Resources (BWSR).

"I spent two to three hours a day hauling manure. That's a lot of time



Scheffler

every day."

Along with wife, Maizie, and their children, Scheffler milks 150 cows and raises about 130 acres of alfalfa and corn.

The feedlot upgrade made it possible to avoid applying manure when it's most easily carried off by snowmelt or runoff, and when it's most susceptible to leaching into the groundwater. Now, Scheffler hires someone to empty the

when you add it up over a year," Scheffler said. "I've got four kids that are coming up, and they all enjoy farming. I believe they will be milking cows for a long time. They won't get burnt out hauling manure

Watershed-Based Implementation Funding supported the feedlot upgrade on Tony Scheffler's Minneola Township dairy farm. Built in 2023, the manure pit contains runoff, preventing it from entering a creek that flows to the North Fork Zumbro River.

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Goodhue SWCD

pit once a year. Manure is knifed into the fields, which also makes the soil less susceptible to erosion.

“Another big advantage is the fertilizer value. Fertilizer is expensive, and we’re able to better utilize the nitrogen we put on our fields for our crops to use,” Scheffler said.

Manure contains nitrogen, a nutrient that helps crops grow. Producers who apply nitrogen other than manure buy the fertilizer.

Well-timed, precise application is important because leaching can drive up nitrate levels in drinking water.

Scheffler’s feedlot project contains the runoff, preventing it from entering a creek that flows to the North Fork Zumbro River and, eventually, the Mississippi River. The pit was designed to hold 2.7 million gallons.

The project also tapped a \$520,000-per-biennium general fund appropriation that BWSR received from the Legislature for feedlot-related projects. The Fiscal Year 2022-23 appropriation was made available to the Southeast SWCD Technical Service Area (TSA 7) to handle a backlog of unfunded projects. The TSA made funds available



The new manure pit has the capacity to hold 14 months of manure, which means Scheffler can apply that nutrient when conditions are right and the plants need it most.

“ (Manure storage projects) have a tendency to impact a lot more acres than just a little farmyard. It could (positively) impact hundreds of acres where the nutrients are being applied.

— Beau Kennedy, Goodhue SWCD manager



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to the 11 soil and water conservation districts within its area.

“Manure storage in general in southeast Minnesota is a priority,” said Goodhue Soil & Water Conservation District (SWCD) Manager Beau Kennedy. This one would rank pretty high — (and) a lot of our other manure storage projects rank really high— because they have a tendency to

impact a lot more acres than just a little farmyard. It could (positively) impact hundreds of acres where the nutrients are being applied.”

Scheffler worked with TSA 7 engineer Kate Bruss, who designed the project, and with Goodhue SWCD Feedlot Compliance Coordinator Kelsey Petit, who helped them with their manure management plan and issued

permits for the project.

Scheffler had contacted SWCD staff several years earlier, seeking assistance with manure storage.

“The funding really helped a lot,” he said. “Our margins are really small. If you spend a lot of money, it’s got to be justifiable.”

WBIF, non-competitive grants awarded to partnerships with comprehensive watershed management plans developed under the One Watershed, One Plan program (or the Metropolitan Surface or Ground Water Management framework), is supported solely by the Clean Water Fund.

BWSR staff members write and produce Snapshots, a monthly newsletter highlighting the work of the agency and its partners.