



Todd SWCD-backed manure pit closures improve safety, water



CLARISSA — A 12-foot-deep manure pit once sat where a grassy slope of pastureland now stretches from Bob Helle's dairy barn to the Partridge River north of Clarissa.

The 1-million-gallon lagoon was one of 200 unused manure pits in Todd County identified in a 2017 inventory funded by a Minnesota Pollution Control Agency (MPCA) grant. By eliminating the risk of a spill or leak, pit closures protect both surface water and drinking water sources — and they eliminate the risk of people

“ We’re being proactive. We’d sooner be proactive than reactive. ”

— Dale Katterhagen,
Todd SWCD Board supervisor

or livestock falling into an overgrown, unseen and potentially deadly hazard.

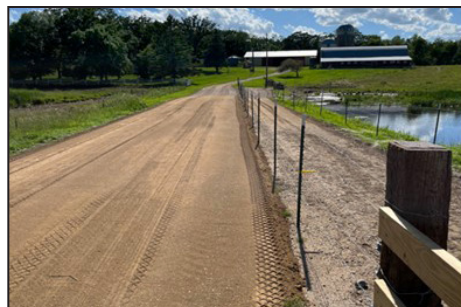
Helle worried about his grandchildren falling in.

Since 2020, the Todd Soil & Water

Top: Bob Helle, center, stood just above the site where a 1-million-gallon manure pit once served a 50-cow dairy. Helle worked with the Todd SWCD to close the pit in 2020. Todd SWCD Manager Deja Anton and Bob's son Mike talked about the project on Sept. 30, 2020.

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From left: Before a livestock river crossing and access control was completed in 2024, cattle walked through the Partridge River. Todd SWCD's work with landowners on manure pits, livestock stream access and vegetated buffers is meant to reduce *E. coli* in the Partridge River, which flows to the Crow Wing and Mississippi rivers. A pipe that carried manure from the barn was crushed as part of the closure.

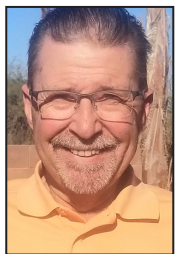


Left, center: A neighbor rotationally grazes 80 black Angus cow-calf pairs on Helle's pasture. The cattle crossed the Partridge River in September 2020. **Photo Credits:** Ann Wessel, BWSR **Right:** "The cattle aren't walking through it every day and stirring it up," Mike Helle said of the livestock river crossing and access control, seen here shortly after work finished in 2024. "It seems to me the cattle are much happier walking rather than swimming." **Photo Courtesy of Todd SWCD**

Conservation District (SWCD) staff has worked with landowners to voluntarily close nearly 60 unused manure pits, with support from \$301,330 in U.S. Environmental Protection Agency (EPA) grants from the MPCA. Six of those were closed in 2025.

Eighteen of the closures within the past five years were within the Partridge River watershed, where an \$81,910 Clean Water Fund grant the Minnesota Board of Water and Soil Resources (BWSR) awarded to the Todd SWCD in 2020 targeted E. coli and nutrient impairments downstream.

Within the watershed and throughout the county, the Todd SWCD has tapped local capacity dollars, another



“It affects everyone, all the way down the Mississippi River out to the Gulf of Mexico. It’s in everybody’s daily life. We have to have water. It’s part of our existence.”

— Lee Buchholz, retired Todd SWCD Board supervisor, on why conservation is important to him

form of Clean Water Funds from BWSR, to augment EPA grants. Leveraged state and federal funding has covered about 75% of costs.

That assistance made it possible for Helle to pursue the \$25,300 pit closure.

When it was built in about 1979, Helle was milking 50 cows. The MPCA-permitted pit was the

second of its kind in Todd County. Permitting rules changed; the pit didn't meet current 300-foot setback requirements. Its berms were under water when the river level was high.

The dairy operation has since ceased. Today, Helle rents the cropland and the pasture to a neighbor who rotationally grazes 80 black Angus cow-calf pairs.

"My cow yard became a pasture, so there was really no need for it," Helle said. "Being so close to the Partridge River, it was a good idea to push the pit in and discontinue it."

A few months after Henning-based Shaw Excavating removed contaminated soils, filled and seeded the site in 2020, all traces of Helle's manure pit were gone. The only sign of construction was a black plastic silt fence bordering the river.

"The goal was to prevent any groundwater contamination," said Todd SWCD Manager Deja Anton. The SWCD administers the county's feedlot program.

Helle and his son Mike,



Bob Helle, left, Anton and Mike Helle crossed the site where a 1-million-gallon manure pit, which was permitted and in compliance while in operation, was closed in 2020. A 2017 inventory identified 200 unused manure pits in Todd County, where the number of dairy farms dropped from 908 in 1978 to 97 in 2024, according to Census of Agriculture and Minnesota Department of Agriculture data. **Photo Credit:** Ann Wessel, BWSR

who recently took over the farm, learned about the cost-share option at Todd SWCD-hosted informational meetings. Today, Anton said the average Todd County manure pit closure costs about \$22,000, depending upon its size and location.

“That 75% cost-share rate, that’s where we’re starting to see an affordability and the possibility for projects to get done,” Anton said.

The Todd SWCD Board of Supervisors had wrestled with offering cost-share to close some of the same manure pits constructed with cost-share decades earlier. But as more people got out of the dairy business, more pits were being abandoned. The 1978 Census of Agriculture reported 908 dairy farms in Todd County. In 2024, the Minnesota Department of Agriculture reported 97 Todd County farms licensed to sell milk.

“We found out how many manure pits were being abandoned because of those dairy herds going away. And that just became a red flag,” said Todd SWCD Board Supervisor Dale Katterhagen of Browerville.

Some of the unused pits hadn’t been emptied. Some were unpermitted, unlined and built on sandier soils, which increased the likelihood of leaching. Some were near creeks or ditches.

“It really was an alarm bell,” said Lee Buchholz of Grey Eagle. A Todd SWCD Board



The Partridge River trickled through Bob Helle’s Todd County farm north of Clarissa in September 2020, where a fence erected to keep silt out of the water during the pit closure still stood. When the water was high, the river would sometimes spill into the pit. Photo Credit: Ann Wessel, BWSR

Leveraging Clean Water Funds

With \$81,910 in Clean Water Funds from BWSR and with a \$221,610, Phase 2 EPA grant from the MPCA, the Todd SWCD worked with landowners to close 10 manure pits, build two livestock exclusion fences, one livestock crossing, one buffer and one diversion, plus install gutters on one barn.

About Clean Water Funds: 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.

Supervisor for 25 years, he retired in December 2024. “We got to thinking about how that would be impacting soil and water. ... If it wasn’t seeping into the aquifer, it was running over into the ditch or the stream that was eventually getting to the Mississippi River.”

Katterhagen and Buchholz said conversations about whether to offer cost-share always came back to human safety. Manure-pit deaths and accidents were in the news at the time.

“A lot of the early ones don’t have fences or anything around them. It

becomes a serious safety issue,” Katterhagen said. Once they’re overgrown, manure pits can become imperceptible.

When residents asked, Buchholz assured them that the SWCD-supported closures were voluntary, and that asking the SWCD about cost-share wouldn’t initiate any regulatory action.

“If there’s some cost-share funds to close it up today, why wouldn’t you?” Katterhagen said. “If you walk away, somebody else will be waiting for the money.”

The SWCD’s recent work has focused on the Long Prairie River watershed. The Long Prairie River Comprehensive Watershed Management Plan restricts its cost-share for manure pit closures to those within 500 feet of surface water. MPCA test well data show that zone is where the water table (the upper, saturated area of an aquifer) and surface water interface — and where E. coli bacteria and nutrients can make their way into the drinking water supply.

“We are certainly proactive in closing them,” Katterhagen said. “It’s a tremendously good thing to do ... to protect our drinking water and to protect people.”

Since closing their manure pit, the Helles have installed a livestock river crossing and access control. That \$82,700 project, supported by nearly \$61,000 in EPA and local capacity funds, replaced and stabilized crushed transfer pipes in the river, and fenced a hard-packed lane that keeps the cattle out of the river. Work finished in summer 2024.

“The culverts weren’t new anymore, and so this was a great project. I think it was good for the river, too. The cattle aren’t walking through it every day and stirring it up,” Mike Helle said. “It seems to me the cattle are much happier walking rather than swimming.”

Written by Ann Wessel, BWSR conservation marketing coordinator



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