Renville County cooperation brings additional water storage options

CLEAN WATER LAND & LEGACY AMENDMENT

YOUR Clean Water Fund AT WORK

OLIVIA — By working together, Renville County Soil & Water Conservation District (SWCD) and county drainage system staff can offer more opportunities for landowners to install nutrient reduction and water storage projects in conjunction with ditch repairs or improvements.

The most recent example will wrap up this spring north of Olivia on the Renville County Ditch 59 system. There, contractors worked with seven landowners to install three water and sediment control basins and three ponds.

A $773,120 Clean Water Fund grant the Minnesota Board of Water and Soil Resources (BWSR) awarded to the SWCD in 2024 supported the work.

Together, those water storage projects — completed in conjunction with planned ditch improvements paid for by benefiting landowners — are estimated to prevent nearly 15 tons of sediment from eroding, and keep about 1,845 pounds of nitrogen and 190 pounds of phosphorus out of Beaver Creek annually. The projects created nearly 190 acre-feet of water storage. An acre-foot is the amount of water it takes to cover 1 acre 1 foot deep.

The County Ditch 59 system flows into Beaver Creek. A priority watershed for the Hawk Creek-Middle Minnesota comprehensive watershed management plan, Beaver Creek carries water from 21 county and judicial ditches affecting nearly 97,600 acres to the Minnesota River. The ditch, creek and river are impaired due to excess sediment and nutrients.

"Most of the time, without the grants we're not going to move forward with the water storage just because it's too expensive," said Kyle Richter, Renville County SWCD resource conservationist.

State statute requires that the benefits of ditch projects must outweigh the costs. The people who determine if a project will pay for itself, known as viewers, typically don't see a monetary

A $773,120 Clean Water Fund grant BWSR awarded to the Renville County SWCD in 2024 leveraged a 10% local match.

A $956,600 Multipurpose Drainage Management Clean Water Fund grant BWSR awarded to the SWCD in 2025 leverages $188,000 in local funds and landowners' match. Additional funding will come from the Minnesota River Valley Conservation Drainage Turn-Key Project, supported by the USDA's Natural Resources Conservation Service via its 2023 agreement with Ecosystem Services Exchange.

Center: *A pond under construction Oct. 7 in Winfield Township just north of Olivia was among the Clean Water Fund-supported water storage projects completed in conjunction with planned Renville County Ditch 59 improvements paid for by benefiting landowners. Together, the three ponds and three water and sediment control basins will create nearly 190 acre-feet of water storage and keep about 1,845 pounds of nitrogen and 190 pounds of phosphorus out of Beaver Creek.* **Photo Credit:** Renville County *A Feb. 24 aerial view,* **left,** *depicts one of the ponds north of Olivia, designed to temporarily store water bound for Renville County Ditch 59, Beaver Creek and, eventually, the Minnesota River.* **Right:** *One of the three water and sediment control basins is seen after a 2-inch rain in June 2024.* **Photos Courtesy of Renville County SWCD**

“The willing landowners, they’re the ones that really make this possible. … If you have somebody that wants to do something … the SWCD does a good job of finding where it fits, and our drainage authority does a good job of figuring out a way to incorporate it into that system.”

— Seth Sparks, Renville County drainage system manager

benefit to the added water storage. So it is the grant funding that makes water storage projects possible.

But it is the tie to drainage work that makes more locations available for storage.

When a pond or water and sediment control basin is built in conjunction with a ditch repair or improvement, it can be located anywhere a willing landowner and suitable site can be found within that watershed. The entire Renville County Ditch 59 system drains 8,681 acres.

“Trying to find a storage location on your small micro-subwatershed, sometimes that can be tougher,” said Seth Sparks, Renville County drainage system manager. Sparks oversees ditch repairs and improvements. He works with landowners and the ditch authority, which in Renville County is the county board of commissioners.

“Without the drainage authority, you don’t have these big projects where you can add storage practices,” Richter said. “We’re able to bring everybody on board because the entire watershed is affected by that drainage system. If we can fix those issues, every other landowner is (going to see positive outcomes).”

The potential to add storage starts with landowners’ petition for a ditch repair or improvement.

“Working with the drainage authority, you can affect (more) acres in one project, and affect an entire water body or drainage system.”

— Kyle Richter, Renville County SWCD resource conservationist

The County Ditch 59 system is among those built in the 1910s. Segments are beginning to fail. Additionally, changes in agricultural practices and equipment over the past 100-plus years — along with increasingly frequent and heavy rains — are sending more water through the system.

When landowners petition the ditch authority, Sparks tells them to expect conversations about water storage, and stresses that installing a water-storage project is voluntary.

“Most of the landowners are always willing to at least hear what their options would be and what it would look like for them,” Sparks said. “And then we can start talking (about) how we can incorporate it within that project.”

Sparks then contacts Richter, who looks for potential water-storage sites. Both explain to landowners how the project might benefit their farm. If landowners are interested, Sparks and Richter will visit them onsite to determine where the water is flowing and make recommendations.

Next, an engineer will draw up a preliminary design and the SWCD will pursue grant funds.

“They kind of sell themselves once (farmers) start seeing how it works,” Richter said. “We’re able to concentrate that (flow) and hold it back behind the water and sediment control basin. Instead of erosive flows going over the surface, we can force it to go down the tile.”

After seeing one of the ponds built in connection with the 2024 grant, a landowner from a different branch of the County Ditch 59 system contacted Sparks about installing water storage on his land. He settled on plans for a wetland and water and sediment control basins.

That eventually led to the SWCD’s successful Multipurpose Drainage Management grant application. BWSR awarded that $956,600 Clean Water Fund grant in 2025.

The project involves four parcels and two landowners. (The County Ditch 59 project will affect 103 landowners.) It will build five water and sediment control basins, close a quarter-mile of drainage tile, create one wetland and 3 acres of saturated buffer to add temporary and permanent water storage and reduce peak flows. The basins will create nearly 155 acre-feet of storage. The wetland will add 15 acre-feet of storage and treat a 2,390-acre watershed.

“The wetland creation is just upstream of one of those other ponds, so it’s going to make that other pond function quite well,” Sparks said. “It kind of completed that complex (in the) upper reaches of that system.”

The work is planned in conjunction with a ditch repair.

“The assumption about drainage is that it’s a bad thing, but if we do it in the right way and add targeted water storage along with it,” Richter said, the result can produce positive outcomes for farmland, farmers, receiving waters and water-quality issues.

“Our flow rate’s going to decrease by putting these projects in. And that sediment that comes through this water is going to lessen as well, because we’re going to allow that to settle out before it goes into receiving waters,” Richter said.

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