



# Wetland easements fix ditch, create water storage, habitat

A Lincoln County project that saved farmers \$175,000, curbed flooding and attracted waterfowl could become a statewide model. Landowners, and local, state and federal partners made it work.



## PROJECT PARTNERS:

Landowners; Royal, Hendricks townships; Lincoln SWCD; Lincoln County; Yellow Medicine River Watershed District; Area II; BWSR; Minnesota Department of Transportation; USDA's Natural Resources Conservation Service

IVANHOE — A restored wetlands project in Lincoln County could become a statewide model for achieving less costly agricultural ditch repairs with water storage, flood mitigation and wildlife habitat benefits.

The project 4 miles west of Ivanhoe saved farmers on the County Ditch 37 system about \$175,000 in shared assessments. It involves three properties, starting with a 2001 Conservation Reserve Enhancement Program (CREP) enrollment, and a 2015 Reinvest in Minnesota (RIM) easement immediately upstream. A third property involves a flowage easement. All lie within the Yellow Medicine



Sterzinger



Olsen



The restored wetland on Steve Snyder's Lincoln County land, seen in 2019, filled shortly after work was complete. **Above:** Snyder grew up hunting waterfowl, and now raises English setters. **Left:** Stan Gorecki raised sheep and ran nearly 1,000 acres of corn and soybeans in Lincoln County. Now retired, he still hunts.

### Contributed Photos



Netzke



Beckler

River watershed, which feeds the Minnesota River.

"It's such a multi-benefit project. It's good for the environment, good for flood control — and when you control flooding you reduce other pollutants,"

said Dale Sterzinger, Lincoln Soil & Water Conservation District manager.

Before township, county, state and federal cooperation made the alternative possible, about 100 landowners on



**From left:** On Stan Gorecki's 60-acre RIM easement, Area II helped to design and install a pump station that lifts water 12 feet from tile that's part of Lincoln County Ditch 37. Water pumped by the lift station from the tile first enters this basin, seen after snowmelt in April 2018. Raising a township road made it possible to increase floodwater storage on Steve Snyder's land to 61 acre-feet. **Photo Credits:** Area II Minnesota River Basin Projects

the 29-mile-long County Ditch 37 system would have shared the \$225,000 repair cost. The alternative cost the ditch system about \$50,000.

The original plan rerouted a 2-mile-long branch around the wetlands. An inspection revealed the 100-year-old tile was crumbling, leaving holes 15 feet in diameter. The entire County Ditch 37 system is evenly split between open ditch and tile.

Lincoln County Environmental Office Director Robert Olsen is the county ditch inspector who oversees the public ditch system. It includes about 153 miles of tile and 118 miles of open ditch — counting shared jurisdiction with Lyon County. In 1921, the system was built to remove surface water so land could be grazed or hayed.

“Now we are trying to farm that. We’re trying to raise row crops in these basins. The problem is the system was never designed to accommodate large amounts of subsurface drainage. Modern tiling technology and the desire to drain areas for agricultural production are not consistent with the initial intent of the original drainage systems. They would need to be much larger,” Olsen said.

As the infrastructure fails, more repairs will become necessary.

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**I really feel those are some of the better things I've done in my life. It's lasting. It's helping the environment, and it's just something I wanted to do.**

— Steve Snyder, landowner

“I’ve got ideas (for) at least three more sites in Lincoln County where I believe it would be beneficial to the members of the (ditch) systems — and to meet the goals of the DNR and BWSR and Area II in improving water quality, improving habitat conditions, establishing new habitat for wildlife, and providing an area where you can store some stormwater and then release it slowly,” Olsen said.

In this case, easements plus state bonding dollars via Area II Minnesota River Basin Projects, a Marshall-based joint powers board, made it possible to install a pump station and disconnect the tile.

Area II used part of its bonding fund allocation from the state legislature to cover 75% of the pump station’s \$141,445 cost. Benefiting landowners’ share included legal fees.

“Seeing a restoration on a public drainage system (was unusual). Now I see it as being

a model for the entire state. It’s very much a success story,” Sterzinger said.

The pump station on Stan Gorecki’s 60-acre RIM wetland restoration can convey 1,100 gallons per minute. It lifts water 12 feet from the tile and sends it south through Steve Snyder’s 76-acre CREP wetland restoration to a culvert at Minnesota Highway 19. There, it becomes a Yellow Medicine River tributary.

“By putting all this agricultural runoff through a wetland, we hoped that we could remove some of the nutrient load. We could certainly remove the sediment load. By putting it into this wetland system and working with Kerry (Netzke), we could actually create some stormwater storage,” Olsen said.

Area II Executive Director Kerry Netzke explained why floodwater retention is important in the region, where the Buffalo Ridge — AKA the Coteau de Prairies,

a geological formation 1,000 feet higher than the floodplain below — results in 50-foot-per-mile elevation drops within the Yellow Medicine River watershed.

“As the snow melts or as the rain falls and it hits those real steep slopes, it gains that velocity and that force that creates those erosion problems as it reaches those floodplains below. By incorporating floodwater retention projects onto the landscape, we can basically stop that rain or that snowmelt where it’s happening and meter it out slowly,” Netzke said.

“We’ve got some of the most productive agricultural lands in the nation in Minnesota. By taking that (water) out of that tile system and allowing it to be retained and slowed in these wetland restorations, (it’s) better all the way around for groundwater recharge, for wildlife, for the floodwater retention benefit,” Netzke said.

“We’re sending the cleaner water downstream,” she said.

The Yellow Medicine River Watershed District set flood control as a top priority for its One Watershed, One Plan — a targeted, science-based approach to watershed-wide management. Sterzinger said the 10-year plan aimed to create 1,000 acre-feet

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of storage on the land via structural practices.

“Everybody across the state is going to run into this looking at flood control, and they have to look at their public drainage systems as part of their plan. This is going to be a model showing how you can relate the two together,” Sterzinger said.

By creating 138.5 acre-feet of storage, Sterzinger said the project not only achieved more than 10% of that 10-year goal but also protected Granite Falls from flooding.

Gorecki’s land features a 33-acre permanent pool, and nearly 78 acre-feet of floodwater storage from a 233-acre watershed. Snyder’s land features a 23-acre permanent pool. Raising a township road increased floodwater storage to 61 acre-feet from a 101-acre watershed. On Alan Steffes’ land, a 7.8-acre flowage easement made it possible to raise the road.

Since the work finished in November 2017, it has withstood rains that typically happen once every 10 years. November 2019 maintenance only required cattail clearing.

Waterfowl appeared as soon as the basins filled. Pheasants and other wildlife populated restored upland habitat.

“Now we’ve got water that’s being treated through a fully restored wetland basin,” said Jason Beckler, Marshall-based BWSR board conservationist. “Everybody wins. You’ve got improved drainage. You’ve got a water-treatment aspect, you’ve got wildlife. ... We’d love to replicate this kind of



The view looking north on April 3, 2020, shows the restored wetlands at their maximum water-holding capacity. The Snyder property is to the west, the Steffe flowage easement is to the east, and the Gorecki property is straight north of Snyder’s land. **Photo Credit:** Lincoln SWCD

## Easement Definitions

**RIM:** These conservation easements secure legal rights and restrictions on future land use. Land remains privately owned. BWSR administers the Reinvest in Minnesota program.

**CREP:** The voluntary Conservation Reserve Enhancement Program takes environmentally sensitive farmland out of production to

protect the land, curb erosion, restore wildlife habitat and protect groundwater and surface water. The state-federal partnership includes land simultaneously enrolled in the USDA’s Farm Service Agency-administered Conservation Reserve Program for up to 15 years, and in the state’s Reinvest in Minnesota program.

project. There’s a lot of aging drainage infrastructure in the southwest part of the state.”

In this case, communication among conservation workers and landowners allowed action when funds become available.

“Without a RIM easement program or a CREP program in the early 2000s this project would never have happened,” Beckler said. “This wetland will be restored perpetually. ... That’s what the RIM program brings to the table.”

The project evolved over several years. Failing infrastructure, and a series

of wet years immediately preceded the RIM wetland sign-up period.

“If you got a big rain like we usually get during the summer, it would either drown out (the crop) or stunt it. It just wasn’t always the best, but we farmed it,” Gorecki said of the 59.8-acre RIM wetlands easement recorded in 2015.

“(W)hen they came with this program, I asked my renter at the time what he would do. He said he would go along with them,” Gorecki said.

The \$322,720 RIM easement

payment sounded fair.

Snyder described what drove his purchase of the CREP land in 2012:

“My dad started bringing me pheasant hunting and duck hunting when I was 8 years old. I just always enjoyed growing up out there, and I just felt like this is a good thing for the environment, No. 1, and it was a good legacy to leave for future generations,” Snyder said.

The first habitat restoration he undertook joined the Minnesota Department of Natural Resources’ Rolling Hills and Clifton wildlife management areas east of Marshall in Lyon County. That transaction — plus renting out the tillable half of the 160 acres in Lincoln County — balanced the CREP land purchase.

“I really feel those are some of the better things I’ve done in my life. It’s lasting. It’s helping the environment, and it’s just something I wanted to do.” Snyder said.

The CREP land had been seeded with a grass. Cattails grew in the bottomland.

“After we had it for a few years, I started seeing that it wanted to be a slough so bad that we should make it back into a slough,” Snyder said. “The other nice thing about the slough is it helped to diversify that land.”

Sterzinger described the wetlands today as full of water and fully functional. When the native species mix flourishes, grasses, shrubs and conifers will provide cover for wildlife.



The Minnesota Board of Water and Soil Resources’ mission is to improve and protect Minnesota’s water and soil resources by working in partnership with local organizations and private landowners. Website: [www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)