BOARD OF WATER AND SOIL RESOURCES

2022 June Snapshots

Lincoln County collaboration



66 It's important that we keep our topsoil in place so it's there for future generations to farm.

— Randy Janiszeski, landowner



EQIP assistance from the Natural Resources Conservation Service, Clean Water Funds from a One Watershed, One Plan grant plus EPA dollars from the MPCA support a project with a big impact on the Yellow Medicine River's water quality

Natural Resources Conservation Service website: www.nrcs.usda.gov P ORTER — A conservation-minded landowner found a permanent fix for the perennial erosion that robbed his Lincoln County field of topsoil when local, state and federal partners collaborated on a project too extensive for any one of them to take on alone.

Randy Janiszeski's 120-acre Alta Vista Township field drained a 150-acre watershed in the hills above the North Branch Yellow Medicine River. After every hard rain, he'd repair the gullies and then keep farming the land until the next hard rain.

"The water just continually gets stronger and faster as it goes across the farm. It started washing out the ground and leaving ditches that we couldn't actually cross with farm equipment," Janiszeski said. "It was ending up down in the creeks where it ends up down the rivers."

From left: Southwest Prairie TSA engineer Russell Hoogendoorn, landowner Randy Janiszeski, NRCS resource conservationist Randy Sheik and Lincoln SWCD Manager Dale Sterzinger gathered where water and sediment control basins and a waterway outlet to the North Branch Yellow Medicine River. Photo Credits: Ann Wessel, BWSR

Now, a series of six water and sediment control basins in the upland area slows and temporarily stores runoff from 40 acres. A 3,000-footlong waterway with a diversion at the top treats the remaining 110 acres.

"If I didn't have the costshare funds, it wouldn't have been affordable. We wouldn't have done it," Janiszeski said.

Federal dollars -**Environmental Quality** Incentives Program (EQIP) assistance from the USDA's Natural Resources Conservation Service (NRCS) and an Environmental Protection Agency grant from the Minnesota Pollution Control Agency - reimbursed 75% of the \$86,000 cost. Clean Water Funds from a Minnesota Board of Water and Soil Resources (BWSR) One Watershed, One Plan grant covered 15%. Janiszeski paid the balance.

Construction finished in fall 2020. Last year's drought didn't bring any hard rains to test the site. Janiszeski said the reprieve allowed the berm-stabilizing grasses to become more established.

Lincoln Soil and Water Conservation District (SWCD) Manager Dale Sterzinger said this project alone achieves 10% of the 10-year sediment reduction goal for the North **Branch Yellow Medicine** River. The Yellow Medicine River One Watershed, One Plan identified the north branch subwatershed, and Alta Vista Township in particular, as priority sites where conservation practices would make the greatest water quality improvements.

"Keeping all of that sediment out of the river will clean those waters up and help



The Yellow Medicine River flowed through Lincoln County on March 31, 2021. A Yellow Medicine River One Watershed, One Plan priority site, the Janiszeski project drew from Clean Water Funds BWSR allocated for 1W1P project implementation. EQIP assistance from NRCS, and EPA funding are also in play.

reduce any nutrient-loading that could be occurring," said Randy Sheik, the Lincoln County-based NRCS resource conservationist who worked with Janiszeski to identify resource concerns and apply for EQIP assistance.

Nutrient reductions here help to address the "dead zone" in the Gulf of Mexico. The Yellow Medicine River flows to the Gulf by way of the Minnesota and Mississippi rivers.

Sterzinger enlisted Rock County SWCD-based Southwest Prairie Technical Service Area (TSA) engineer Russell Hoogendoorn to design the project.

A neighbor's cooperation allowed Hoogendoorn to design a stable tile outlet that crossed the neighbor's pasture and carried water directly to the creek. The alternative would have added about a mile — and more expense — to the route.

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"I think it's going to be a huge benefit to the soil, and also to the water system because we're not going to be running all this dirty runoff ... into the creek," Janiszeski said. "If we're outletting water, at least it's clean water going into the creeks."

Estimates show the six basins and the waterway will keep 22 pounds of phosphorus and just over 19 tons of sediment out of the river, and prevent 38.5 tons of soil erosion each year. One pound of phosphorus can produce up to 500 pounds of algae.

"The phosphorus reduction, sediment and soil (erosion) reductions are huge on this project because of the large watershed flowing through this area and all the erosion that was taking place right above the Yellow Medicine River where this water outlets," Sterzinger said.



Natural Resources Conservation Service

The water and sediment control basins, which are designed to retain water for up to 48 hours, moved the Yellow Medicine River watershed closer to meeting its One Watershed, One Plan goal of creating 1,000 acrefeet of upland water storage.

Slowing the water, which Janiszeski said flowed like rivers across the field after a hard rain, will reduce downstream flood damage to cropland, existing waterways and a township road.

"It will also reduce the velocity of water entering the Yellow Medicine River," Sterzinger said. "By reducing the velocity of water, we are hoping for less streambank erosion. With less erosion, water quality and nutrient retention will be improved immensely."

Within this prioritized and targeted area of the North Branch Yellow Medicine River watershed, about 75 potential structural practices were identified.

Sterzinger said farmers throughout Lincoln County are eager to curb field erosion.

"We have a very steep landscape, so erosion takes place very easily," Sterzinger said. "We have a good, heavy loam soil in parts of our county, but with our landscape — the way the water moves and the wind blows — the soil definitely moves."

The SWCD has a list of landowners interested in pursuing conservation projects.

"The downfall is we don't have enough funding to get to everybody. That's why we try to pool all those resources together," Sterzinger said.