

Nicollet Soil & Water Conservation District
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Nicollet SWCD News

2020

July

SEVEN MILE CREEK

In the last newsletter, we discussed what all of the rain in 2019 was doing to water quality in Seven Mile Creek. What can we do to reduce the amount of erosion and flooding we see in the watershed, if we are going to keep having large rain totals, like in 2019, and massive rain events during the summer? Great River Greening, Nicollet SWCD, and other partners in the Seven Mile Creek Watershed Partnership are working on new projects that we are optimistic and excited about for retaining and improving water in Seven Mile Creek.



Photo taken by MPCA staff in April 2019

A 1-pound increase of organic matter in soil can help manage as much as 10 pounds (1.2 gallons) of water. If we could increase the organic matter, roughly a thousand pounds per acre in crop fields of this watershed, we could retain millions more gallons of water and the nutrients and soil that leave with that water. Of course soils vary and we are starting small, but we are in the process of piloting new cover crops and perennial crops in eastern Nicollet County, while simultaneously working to develop sustainable markets for them. Look for more information about these crops to become available in the coming months, or reach out to Great River Greening for more information.

Furthermore, while the watershed was historically covered by over 11,000 acres of wetlands, it now has fewer than 2,000 acres. Water that would have historically been stored in those wetlands, now either floods crop fields or drains immediately into the creek. Great progress has been made in the county for CREP enrollment, but there are still opportunities for enrolling flooded lands in wetland programs, which will store and filter floodwater during rain events.

We are optimistic about some of these new practices that can retain more water and improve water quality. Look for more updates on these efforts in upcoming newsletters. **Brad Gordon, Ph.D, Great River Greening**

Minnesota Department of Agriculture's (MDA) Groundwater Protection Rule

The Groundwater Protection Rule minimizes nitrate pollution to the state's groundwater from potential fertilizer sources and works with local farmers to prevent public water supply wells from exceeding the drinking water standard for nitrate. The rule was developed following a multi-year process with extensive stakeholder input.

The rule restricts the application of nitrogen fertilizer in the fall and to frozen soil in areas vulnerable to contamination, beginning September 1, 2020. This will also apply to Drinking Water Supply Management Areas (DWSMAs) with elevated nitrate. In Nicollet County this includes the St. Peter DWSMA as well as quarter-sections along the Minnesota River, near St. Peter and in the northeast part of the county.

Additionally, in DWSMAs with nitrate greater than or equal to 8 mg/L, the MDA will form local advisory teams with local farmers, agronomists, and other area members. The St. Peter DWSMA exceeds the 8 mg/L threshold and the MDA will be forming a team to review existing practices, propose solutions and advise the MDA on appropriate management practices to reduce nitrate in groundwater. Local advisory teams are critical to engage area farmers. The goal is to involve local farmers and agronomists in problem-solving to address elevated levels of nitrate in groundwater, not to regulate the use of nitrogen fertilizer. Regulation under this part of the rule will only occur if nitrate in the groundwater increases or if the nitrogen fertilizer best management practices are not adopted on 80% or more of the cropland acres in the DWSMA.

To monitor nitrate levels and the effectiveness of agricultural practices, the MDA will be installing a local groundwater well network of 20-30 shallow wells. These wells will help establish a baseline nitrate concentration and evaluate changes in nitrate levels over time as ag practices and activities change.

For more information, including maps and a list of DWSMAs impacted by the rule, visit www.mda.state.mn.us/nfr. For more information, contact MDA staff: Travis Hirman, 612-201-4194, travis.hirman@state.mn.us or Dawn Bernau, 507-216-1094, dawn.bernau@state.mn.us **Travis Hirman, MN Dept. of Ag**

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Board Meetings are held the first Wednesday of each month at 8:30 a.m. Agenda posted on the website one week prior.



The Nicollet Soil and Water Conservation District

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8:00am-4:30pm
Please call ahead to schedule an appointment.

Natural Resource Conservation Service

Phone: (507) 237-5435 ext. 3

April Sullivan
District Conservationist

Katie Mattila
Soil Conservationist

**United States Department of Agriculture
Conservation Financial Assistance Programs:**
CRP (Conservation Reserve Program)
Sign-up runs through August 21, 2020
CSP (Conservation Stewardship Program)
Continuous Sign-up Now Accepting Applications for FY2021 Funds
EQIP (Environmental Quality Incentive Program)
2021 applications are currently being accepted
WRE (Wetland Reserve Easements) Continuous Sign-up
For more information, contact the Sibley/Nicollet NRCS Office in Gaylord: **(507) 237-5435**
Natural Resources Conservation Service
112 5th Street, PO Box 868, Gaylord, MN 55334
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MN CREP Fits Minnesota River Bottom



This MN CREP easement borders the Minnesota River in Nicollet Township, Nicollet County. River bottom floodplain cropland was enrolled in 2013. **Photo Credit:** Nicollet SWCD

The Minnesota River bottom contains some of the most fertile – and flood-prone – cropland in Nicollet County, where landowners are seeing the advantages of the Minnesota Conservation Reserve Enhancement Program (MN CREP). Since MN CREP began accepting applications in May 2017, Nicollet Soil & Water Conservation District (SWCD) staff has assisted 15 landowners in enrolling a total of 972 acres. Twelve of the 15 landowners enrolled 832 acres along the Minnesota River bottom.

The voluntary, federal-state funded program targets the highest priority areas across 54 counties in southern and western Minnesota. Landowners enroll simultaneously in a 14- to 15-year federal Conservation Reserve Program (CRP) contract administered by the USDA's Farm Service Agency, and a perpetual Reinvest in Minnesota (RIM) conservation easement administered by the Minnesota Board of Water and Soil Resources (BWSR). MN CREP is working toward making a big difference. Aiming to permanently protect land, the program restores hydrology, increases infiltration, provides flood mitigation and wildlife habitat, and reduces nitrate-loading in drinking water supplies.

A Minnesota River-Mankato Watershed Total Maximum Daily Load (TMDL) study identified high levels of E. coli, total suspended solids, nitrate and total phosphorus as impairments in the Minnesota River-Mankato watershed. Those impairments affect aquatic life, including macroinvertebrate and fish communities; aquatic recreation including swimming; and drinking water. Because the Minnesota is a Mississippi River tributary, protection and restoration of land within the Minnesota River watershed affects the Mississippi.

"There has been tremendous landowner interest in enrolling in the program," said Eric Miller, Sibley/Nicollet SWCD Farm Bill technician. The river bottom holds the key to conservation in Nicollet County. The interaction among its soil, hydrology and biotic communities serves many important physical, biological and ecological functions. The river will always meander, but deep roots and vegetation help to hold soil and mitigate erosion. During floods, permanent vegetation slows down the flow. That allows sediment deposition outside the river channel, trapping more sediment in the floodplain. During regular flow, more sediment is held in the uplands, reducing the velocity of water flowing off the bluffs. The end result is reduced sediment transport, reduced nitrate loading, improved water quality, and improved habitat for fish and macroinvertebrate communities. Although the river bottom produces some of the most fertile land in the county, heavier and more frequent rainfalls make that land more susceptible to flooding. For landowners, this results in crop loss and/or the inability to plant. "Rather than fighting the unknown question of what the river will do, and can I get a crop in and what happens to my crop insurance prices if I get flooded out again," Miller said, enrolling in the program tends to make more sense for landowners. "There's really only a few fields left along the river bottom".

Just over 1,370 acres of crop ground potentially eligible for MN CREP remains within the floodplain in Nicollet County. Just over 5,700 acres are already enrolled in federal and state easement programs within the county's 17,972-acre, 500-year floodplain – the area that has a 1 in 500 chance of flooding in any given year. The county contains a total of 280,866 acres, and nearly 105 miles of the meandering Minnesota River. **Continued on next page**



Left: This MN CREP easement bordering the Minnesota River in Courtland Township, Nicollet County, is river bottom floodplain cropland enrolled in 2020 and scheduled to be seeded in fall 2020. **Middle and Right:** A MN CREP easement borders the Minnesota River in Nicollet Township, Nicollet County. The river bottom floodplain cropland was enrolled in 2013. **Photo Credits:** Nicollet SWCD

Landowner and Nicollet SWCD Board Member John Kral owns about 230 acres of river bottom and bluff land in Nicollet County. Kral enrolled his last 9 acres located within the floodplain into the program in 2019.

"It was a good way to utilize marginal land and put acreage back into wildlife habitat," Kral said, explaining why he enrolled those 9 acres in the program. Referring to the debris that comes with flooding, he said, "It got to the point where it made more sense than always fighting wood with the waves."

Seeing the instability of the river has been difficult for Kral, an outdoorsman who enjoys fishing and hunting. In 10 years, Kral said he would like to see less flooding, a more stable river level, and more water storage in the highlands. Kral said most people don't understand how much work and customer service staff members put into conservation. "It's much more than just typing out a project. It's surveying, measuring, staking," he said.

Miller, who was hired nearly five years ago as a Nicollet SWCD watershed technician and moved into his current role two years ago, said he most enjoys the customer service-driven side of conservation – finding the right program for the right person and understanding that each person's needs are different. "I really enjoy working with landowners. I've established strong relationships with landowners. Working on the CREP Program, I can't say I know Nicollet County like the back of my hand, but it's given me the opportunity to meet a ton of people and hear stories about the land and what it's meant to their family."

From the time MN CREP enrollment opened in May 2017 through March 2020, nearly 480 applications have been funded, voluntarily enrolling 25,000 environmentally sensitive acres. MN CREP will continue to accept applications until funds are exhausted or the sign-up acreage goals are met. www.bwsr.state.mn.us

NRCS: What we have been up to ...

2020 already has been a year that we will not soon forget in many ways. We have been busy learning and implementing new changes to programs from the 2018 Farm Bill. Not a lot of major changes but ones that change how we are doing business. This year we got a new software program to process our conservation planning. With all things new there is a learning curve. Shortly, after rolling out we were hit with COVID-19 and yet another change to how we operate. We have adapted and found other ways of conducting business with our producers. It has not stopped us as we have been keeping busy.

EQIP (Environmental Quality Incentives Program) had a successful sign up for numerous practices. We worked through conservation planning with 38 producers to help fix a resource concern on their operation or help to transition into more conservation practices. Practices we worked on are 329- No-till/Strip-till, 340-Cover Crop, 316-Animal Mortality Facility, 360 Waste Facility Closure, 412-Grassed Waterway, 410-Grade Stabilization Structure, 638-Water & Sediment Control Basin; 528 Prescribed Grazing; CAP-Conservation Activity Plan; 325-Seasonal High Tunnel; 600-Terrace.

CSP (Conservation Stewardship Program) also held a sign up with 13 producers taking the leap to further their conservation efforts. This program provides a small payment for conservation you are already completing on your operation as well as requiring you to step up and try something new. This program has been popular in the 2 counties for quite some time. Lots of conservation efforts being taken to the next step.

CRP (Conservation Reserve Program) has been busy as well. With a general signup held last fall and the on-going Continuous sign-up that runs through August we have been completing site visits for current stand evaluations and writing conservation plans.

If you have any resource concerns on your operation, don't hesitate to give us a call and see what we can help you with. Don't wait too long, we need some planning time in order to apply for program assistance. Our office continues to be closed to the public, so a phone call or email works best. You can reach us at 507-237-5435 ext. 3 or by email at april.sullivan@usda.gov. **April Sullivan, NRCS**