



CONSERVATION NEWS

2021

KANABEC SWCD

EMPOWERING CONSERVATION SINCE 1951

BOARD OF SUPERVISORS

Sorensen's Project Story

What does the Soil & Water Conservation District (SWCD) do? We work in cooperation with land owners throughout Kanabec County. We promote and lead land owners through the installation of a variety of conservation projects. Projects meant to address the concerns and objectives of the owners and work to clean up our waters or prevent soil erosion. Jim and Gail Sorensen contacted us in 2017 with some severe streambank erosion they were experiencing. Below is their project story, told in their own voice. **Read on to hear their story...**

11-16-20

To the Board and Interested Parties,

On 11-15-17 our bank erosion project started. We know the creek bank had been eroding for years. The heavy rains, river flooding, soaking of the soil along with thawing and freezing had increased the problem. Knowing something had to be done, we called the SWCD. Soon after we had a visit from them and the Duluth Engineering office. We agreed on the proposed action. Our job now was to secure bids. This was delayed because I wanted to use local contractors. Due to their work load, the difficulty of



BEFORE



AFTER

weather cooperated and work was started on 6-7-19 and completed on 6-13-19.

We were appreciative for the patience shown by all, especially we thank Deanna Pomije. She took these two 80-year-olds by the hand & made it work smoothly. The end choices for excavating and planting were great.

Their care for our property was evident. Mary, the site engineer was present during the entire project. The visits before & after were appreciated.

Timely rains, watering, spraying for deer gave it a good start. By the end of the summer, it was more than we expected. Now 1 1/2 years later the native plants and grasses have re-seeded and the bank is secure. Best of all we have stopped the erosion & kept the river cleaner. We again thank all who made this happen. We would have had a real problem, financially, handling this on our own. Now to our satisfaction it has been done.

the work & rain, no one was interested in bidding. I did give out plans & talked to at least 9 in this area, as a result we got a very high bid. Because of the delay we ran out of time for the year.

Finally, 1-3-19 we finalized paper work. That spring the

Sincerely,
Jim & Gail Sorensen

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District 1
Kevin Belkholm
Grass Lake Township
South Fork Township
Brunswick Township

District 2
Norma Heggernes
City of Mora

District 3
Jon Sanford
Kanabec Township
Arthur Township

District 4
Gene Carda
Knife Lake Township
Whited Township
Comfort Township

District 5
Kim Johnson
Peace Township
Pomroy Township
Ann Lake Township
Hillman Township
Haybrook Township
Ford Township
Kroschel Township

INSIDE THIS ISSUE

PG.2 SNAKE RIVER WATER ASSESSMENT

PG.3 LOCAL PROGRAMS/COLA

PG.4 USDA PROGRAMS

PG.5 NEW PROJECT/DRINKING WATER

PG.6 SNAKE RIVER PLANNING

PG.7 ANN LAKE TREATMENT/OUR SUPERVISORS

PG.8 TREE ORDER FORM

Local Postal Customer

2008 Mahogany St
Ste.3
Mora, MN 55051



PRRST STD
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Snake River Watershed

Water Assessment & Trends Update

The MPCA first studied the Snake River Watershed in 2006 and did a second cycle of intensive water monitoring in 2017-18. This second cycle of monitoring found that generally lakes and streams in this watershed remain in good condition, though there is some room for improvement.

The Snake River Watershed has streams and lakes with healthy fish and bug communities, though recreation use is generally impaired for lakes and streams. Excess bacteria in streams and high levels of algae in lakes can limit recreational opportunities.

Overall, scientists observed little change in the water quality in the watershed over the past decade. It is important to protect the forests, wetlands and other natural features of this watershed while working to reduce pollutants like bacteria that can make water unsafe for swimming and nutrients that can cause algae.

The second cycle of intensive water monitoring found some good and bad news:

- Scientists identified three new macroinvertebrate and six new bacteria impairments. An impairment means the water has exceeded the healthy water quality standards for its' given use. The watershed has several impairments for aquatic life and recreation (fish and swimming) from previous assessments.
- Pomroy Lake in Kanabec County has improving water clarity.
- The first assessment of fish in the lakes by the Minnesota Department of Natural Resources (DNR) showed that of the five lakes assessed; only Pokegama Lake, in Pine County, was impaired.

Highlights of monitoring

The MPCA monitoring crew captured a lake sturgeon, a species of concern in Minnesota. Sturgeon often have healthy populations only in areas with good water quality. Finding a young lake sturgeon is a good indication that the population is reproducing and established in the river. Sturgeon are a sensitive species, meaning they are quick to react to stressors. A variety of sensitive species were found while sampling throughout the watershed, including northern hogsuckers and southern brook lamprey.

- While conducting watershed sampling, scientists note any presence of aquatic exotic species. In recent years, the presence of curly-leaf pondweed in streams throughout Minnesota has become much more common. This is also true of streams in the Snake River Watershed. All the large lakes in the watershed (Pokegama, Cross, Mud, Fish, Knife, Ann and Bear) are known to have curly-leaf pondweed, so it is to be expected that connected tributaries would also have curly-leaf.
- As curly-leaf spreads throughout the watershed, it can decrease available habitat for communities of fish and bugs.

Success story: Natural areas provide built-in resiliency

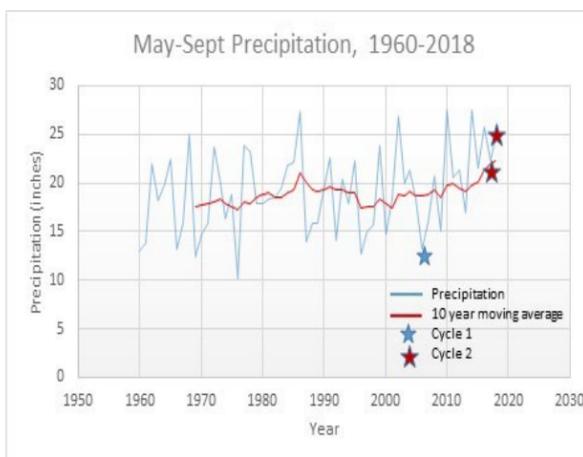
This watershed is better able than many areas to absorb intense storm events, and the resulting high

runoff and stream flows, because scientists consider



MPCA monitoring crews found northern hogsucker, a species sensitive to pollution, while sampling the Snake River.

It to still be "intact," meaning many natural areas have remained untouched, including wetlands and floodplains. In 2017 and 2018, the Snake River Watershed saw multiple high intensity rain events, which led to noticeable flooding. High intensity rain events can lead to increased erosion and runoff in streams, which can cause impairments to the watershed. Intact wetlands, access to floodplains, low erosion rates, and intact riparian land all help preserve the watershed during the prolonged periods of high flow. While the watershed has experienced changes in land use and increased urbanization, many natural areas have remained untouched, helping to prevent additional impairments. In spite of all these possible stressors, the watershed has remained relatively stable, with few new impairments. The new lake assessments support the low impairment rate of biological communities in the Snake River Watershed. In cycle one, there was no fish Index of Biological Integrity (IBI) available to assess the lake fish communities. In cycle two, the DNR assessed the fish in lakes for the first time. Knife Lake, Fish Lake, Ann Lake, Cross Lake and Pokegama were all assessed. Only Pokegama was found to be impaired for aquatic life due to fish IBI. The few impairments are evidence that the watershed is intact and it is important to protect those features.



-Precipitation in the Snake River watershed observed in Mora between 1960 and 2019. Precipitation during cycle two was much higher than it was in cycle one, due to the high density rain events.

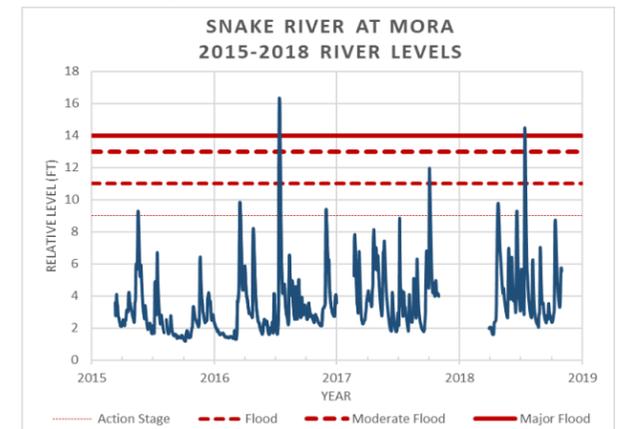
Streamflow and water levels

The upper Snake River has risen above flood stage on multiple occasions in recent years. Widespread

rainfall of 5-6 inches was recorded across nearly all of the upper Snake River Watershed on July 12, 2016. The Snake River responded by exceeding major flood stage by more than 2 feet, submerging roads and causing widespread flooding. Two years

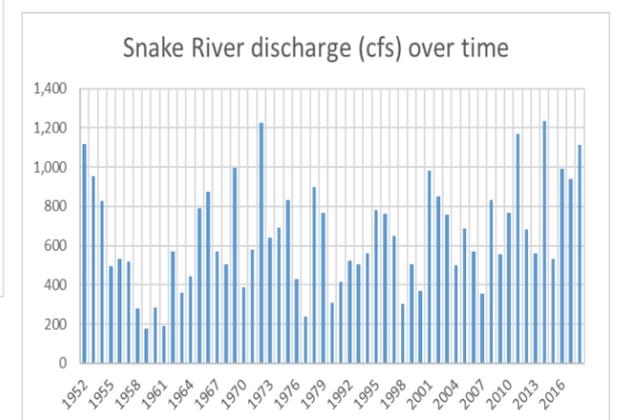
later to the day, widespread rainfall of 3-5 inches was recorded across much of the upper Snake River Watershed, once again prompting the Snake River to exceed major flood stage. In both cases, river levels had attenuated below flood stage by the time the crest had reached the U.S. Geological Survey river gaging station near Pine City.

The DNR began tracking river stage and flow volume in 2015. By the end of 2018, the Snake River monitoring location at Mora had recorded river levels surpassing flood stage three times, including the two instances where it surpassed major flood stage detailed above. The Snake River has exceeded action level on five other instances during this four-year period. 2019 stage data is yet to be finalized, but it is already clear that the Snake River stage was once again high on several occasions.



The Snake River Watershed has recorded several flood events in recent years.

Continuous annual streamflow (discharge) data is available for the Snake River Watershed since 1953. In that, time period there is no clear trend, although it is important to note that three of the highest flow years have occurred since 2010, suggesting that the hydrology of the Snake River may be in a period of transition. High flow events have implications for stream channel conditions and pollutant loading, namely more channel erosion and possibly more pollutant loading, even if pollutant concentrations are stable. Because loads represent the total amount of a pollutant moving through a system, this way of measuring water quality is important for downstream resources such as Lake Saint Croix and Lake Pepin, where these pollutants may accumulate.



Flow data suggest that the Snake River is in transition to a higher flow level that can carry more pollutants to downstream to St. Croix Lake and Lake Pepin.

To view this full report from July 2020 see the website below. (wq-ws3-07030004c) <https://www.pca.state.mn.us/water/watersheds/snake-river-st-croix-basin>



Water quality is a hot topic today, and oftentimes agriculture is in the center of that discussion. There are many opportunities for farmers to participate in voluntary natural resource conservation programs to combat soil erosion and nutrient pollution among other water quality threats. The Minnesota Department of Agriculture's (MDA) Agricultural Water Quality Certification Program (MAWQCP) is here to assist ag producers in implementing conservation and celebrate an individual farmer's dedication to water quality. What is the Minnesota Agricultural Water Quality Certification Program (MAWQCP)? It is a voluntary opportunity for farmers and agricultural landowners to take the lead in implementing conservation practices that protect our water. The program offers farmers and ag producers financial assistance to implement best management practices on their farm as well as providing regulatory certainty. Certified producers are deemed to be in compliance with any new water quality rules or laws during their period of certification.



The purpose of the MAWQCP is to encourage and accelerate the adoption of conservation practices that protect water quality in Minnesota. The beauty of this program is its flexibility for farmers to reach the state's water quality standards on their terms, meaning the farmer can pick and choose practices that work with their unique operation, while avoiding any new water quality regulations for the next 10 years. Essentially, it is an environmental insurance policy allowing for a worry-free future. Addition-

ally, a farmer participating in this certification process has an opportunity to tap into technical and financial assistance only available to farmers seeking certification. This means less competition and better funding rates to try new innovative conservation practices like cover crops and other soil health building practices. This certification can also be used as a marketing tool to promote agricultural products to consumers who are concerned about how and where their food was grown and what environmental protections are in place. The MN Ag Water Quality Certification Program is an excellent opportunity for farmers to show their dedication to water quality. It involves little time commitment and is entirely voluntary with no financial commitment required from the farmer.



Rye Carlson

Newly certified under the MAWQCP Program in Kanabec County are Nancy Lunzer and Rye Carlson.

Through this program we work closely with Ryan Clark, our Northeast Area MAWQCP Specialist, out of the Carlton SWCD. If you are interested in applying for this program or have questions, please feel free to contact Ryan Clark (218) 384-3891, ryan.clark@carltonswcd.org or Josh Votruba (320) 674-3008, Josh@KanabecSWCD.org.

Knife River Area Funding

The Kanabec SWCD has recently been awarded a State of Minnesota grant and we are excited to inform you the Knife River Area has funding available to help with conservation projects!



A little background, the Knife River Watershed, upstream of our popular Knife Lake has a water quality impairment for aquatic macroinvertebrates (water bugs). Our goal for this grant is to remove this impairment through implementing conservation practices on the Knife River. With this grant we plan to complete 4-6 Best Management Practices (BMPs) on the Knife River, which outlets into the Knife Lake. Projects targeted for implementation include pasture management practices, and stream bank erosion control practices.



The pasture management practices may include livestock fencing exclusions with the option of providing an alternative watering area.

Funds could cover vegetative filter strips along pasture stream corridors or streambank erosion control projects.

Our goal is to remove the aquatic macro-invertebrate impairment on the Knife River by targeting the sedimentation sources. **To obtain this goal, we need your help!** If you live in the Knife River Area within Kanabec County and would like to talk with us about a concern you have on your land, please contact us! (320) 679-1391



Kanabec Coalition of Lake Associations



The Kanabec SWCD and the Counties' Lake Associations are working jointly to control and educate on Aquatic Invasive Species (AIS). This is a coordinated effort with lake association members through the Coalition of Lake Associations (COLA) group, which sets policies to utilize our AIS funds. Funding received from the state for this AIS work is solely to prevent the introduction or limit the spread of AIS at all access sites within the County.

The Kanabec COLA is made up of lake associations from Ann, Fish, Lewis, Quamba, Pomroy and Knife Lakes. In 2020 two seasonal boat inspectors were hired with AIS aid to inspect watercraft on nine public accesses on seven lakes in the county. The watercraft inspectors assisted with our goal of increased education, data collection on lake usage, preventing the introduction and limiting the spread of AIS within the county. Based on this lake usage data the COLA group may pursue the purchase of a AIS decontamination unit in the future.



Zebra Mussels attached to a large native mussel

In 2020 five Lake Associations also used AIS funds for curly leaf pondweed treatments on Ann, Knife, Fish, Quamba, and Lewis Lakes. For 2021, we plan again to hire two seasonal boat inspectors to check boats and provide AIS education at public accesses throughout the county. Through this coordinated AIS prevention effort in Kanabec County; invasive species are being controlled resulting in cleaner lakes and less invasive species entering our Kanabec County Waters.



Curly Leaf Pondweed has become established in many lakes in Kanabec County. Left uncontrolled, it can interfere with enjoyment of the lake as it forms dense mats of vegetation near the shore.

The Kanabec County Coalition of Lake Associations will host a public gathering on June 10th at 6 PM at the Fish Lake Resort. This is an opportunity for lake and river residents and the general public to ask questions and share information regarding the surface waters of Kanabec County and the associations/organizations that champion those waters. Please stay tuned for any future updates regarding this gathering.

HELPING PEOPLE HELP THE LAND

NATURAL RESOURCES CONSERVATION SERVICE



Environmental Quality Incentives Program

Natural Resources Conservation Service



USDA's Natural Resources Conservation Service offers voluntary Farm Bill programs that benefit both agricultural producers and the environment.

Overview

The Environmental Quality Incentives Program (EQIP) provides technical and financial assistance to producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion, and improved or created wildlife habitat.

Benefits

Through EQIP, NRCS provides agricultural producers with one-on-one help and financial assistance to plan and implement improvements, or what NRCS calls conservation practices. Together, NRCS and producers invest in solutions that conserve natural resources for the future while improving agricultural operations.

Program at a Glance

NRCS will help you develop a conservation plan that meets your goals and vision. This plan becomes your roadmap for selecting the right conservation practices for your land. NRCS offers about 200 unique practices designed for working farms, ranches, and forests.

NRCS financial assistance can cover part of the costs of implementing conservation practices.

Who is Eligible?

Farmers, ranchers, and forest landowners who own or rent agricultural land are eligible. EQIP assistance can be used on all types of agricultural operations, including:

- Conventional and organic
- Specialty crops and commodity crops
- Forestry and wildlife
- Historically underserved farmers*
- Livestock operations

*Increased and advance payments available for historically underserved producers (beginning, limited resource, socially disadvantaged, and military veterans.)

How to Apply

Apply at your local USDA Service Center, which you can find at farmers.gov/service-locator.

Applications for EQIP financial assistance are accepted throughout the year. Specific state deadlines are set for ranking and funding. If your application is ranked and selected, you will enter into a contract with NRCS to receive financial assistance for the cost of implementing conservation practices. Payment rates for conservation practices are reviewed and set each fiscal year.

More Information

For more information, visit nrcs.usda.gov/farmland or farmers.gov.

Find your local USDA Service Center at farmers.gov/service-locator.

What's New in the 2018 Farm Bill

Adds potential resource concerns related to beneficial cost-effective operation changes.

Raises cap for organic producers to \$140,000 over four years.

New enrollment option through incentive contracts to address priority resource concerns.

Requires advance payment option be offered to historically underserved producers.

Authorizes direct program assistance to irrigation districts, including acequias and other entities, for purposes of improving water use efficiencies.

Natural Resources Conservation Service

July 2019 nrcs.usda.gov



USDA is an equal opportunity provider, employer, and lender.

Farm Loans Available

The Farm Service Agency (FSA) offers a wide range of low-interest loans that can meet the financial needs of any farm operation for just about any purpose. The traditional **farm operating and farm ownership loans** can help large and small farm operations take advantage of early purchasing discounts for spring inputs as well expenses throughout the year.

Microloans are a simplified loan program that will provide up to \$50,000 for both Farm Ownership and Operating Microloans to eligible applicants. Microloans focus on the financing needs of small, beginning farmer, niche, and non-traditional farm operations. These loans, targeted for smaller and non-traditional operations, can be used for operating expenses, starting a new operation, purchasing equipment, and other needs associated with a farming operation. Microloans can also help with farmland and building purchases and soil and water conservation improvements.

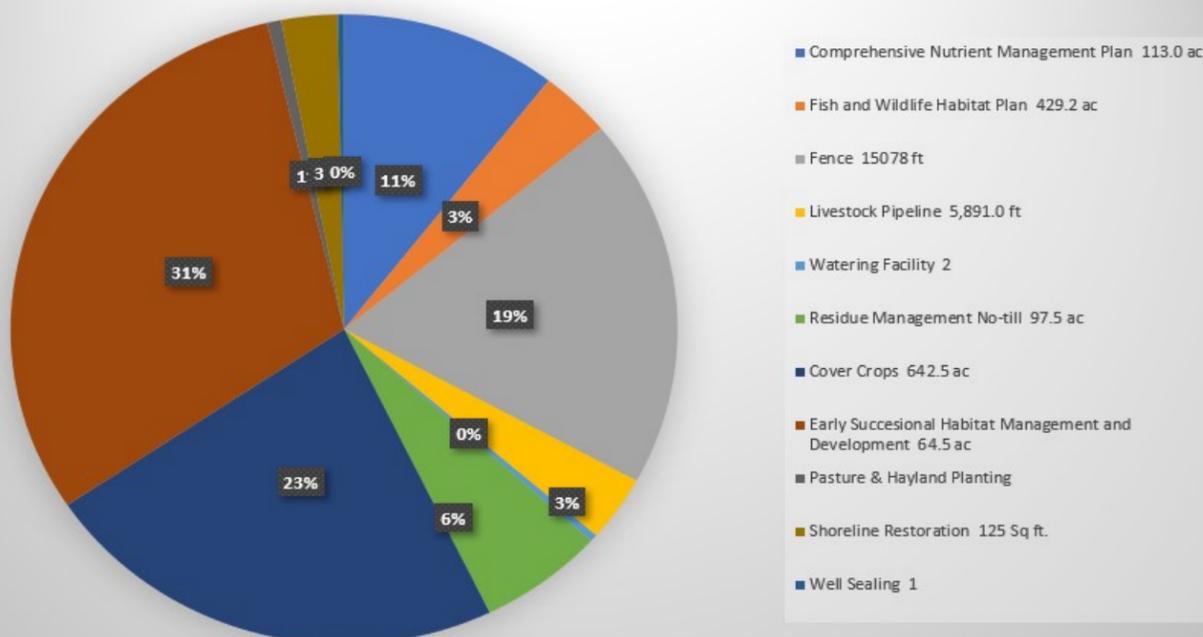
Loans to beginning farmers and members of underserved groups are a priority. To qualify as a beginning producer, the individual or entity must meet the eligibility requirements outlined for direct or guaranteed loans. Individuals and all entity members must have **operated a farm for less than 10 years and in the case of farm ownership loans, own less than 30% of the average farm acreage in the county in which the applicant is applying.** Applicants must materially or substantially participate in the operation.

Please contact Farm Loan staff at the Mora FSA at 320-679-2080.



2020 Conservation Practices Installed - NRCS/SWCD Funding

2020 Practices Installed



Total Estimated Pollution Reductions: Phosphorus 162 lbs./yr., Sediment 190 Tons/yr., Soil Saved 433 Tons/yr.



HWY 65 Fish Lake/Ann River Shoreline Project

The Kanabec Soil and Water Conservation District (SWCD) would like to inform Kanabec County citizens of a potential project on Fish Lake for which we plan to pursue for grant funding. The SWCD is looking to do a shoreline stabilization project to fix the erosion on the west side of the HWY 65 bridge on Fish Lake south of Mora. This location is a popular fishing spot in the Mora area. Due to heavy foot traffic from fishermen and women over the years and the constantly changing lake levels of Fish Lake, this shoreline has been slowly eroding. This eroded sediment accounts for a large portion of the sediment entering Fish Lake, about one third of what enters the lake. By completing this project, we plan to improve the water quality in Fish lake as well as preserve and protect this

popular fishing spot. The cost of the project is estimated at \$80,000 and the Kanabec SWCD is looking to apply for a grant that would cover up to 75% of the total cost. The landowner or Kanabec County would be responsible for the remaining 25% or \$20,000. In lieu of the county footing this entire bill through tax payer's dollars; we are seeking additional support. This is where we need your help. To make this project a reality, we need help from the community to contribute funds or offer support for this project. We appreciate your input and support regarding this potential project. Please contact us with your comments (320) 679-1391 or Josh@KanabecSWCD.org.



Proposed Project Site South of Mora, off Hwy 65



Photo of completed similar project in Pine County, MN

Abandoned Wells Pose Safety and Drinking Water Concerns

Do you have or know of an abandoned well? Unused abandoned wells can pose a serious threat to our drinking water. An open well is a direct avenue for ground water contamination which could affect your well, your neighbor's or the nearby community. Debris, animals or heaven forbid children could become trapped in an old well. While well disclosures are required during land transactions there may be an unknown, unused well on your property that should be sealed. Indications of old wells may be an old pump, windmill, old pipe or casing sticking out of the ground or in an old out-building. There may be a pipe in the basement which has been capped, but not sealed. Former owners, neighbors or well drillers may have information of where a well was located.

How do I properly seal my unused well?

Most contractors that drill residential wells, also seal them. State law requires that a well be sealed by a MN Department of Health licensed well sealer.

Most of your local well drillers can do the job. Certified contractors can be found on their website at <https://www.health.state.mn.us/communities/environment/water/wells/lwc/index.html>

Sealing a well may run in the ballpark from \$500-2,000, depending on the depth and complexity of the well. We recommend getting bids from well drillers for your anticipated costs. We may also have partial funding available to assist in the

sealing your unused wells. Call us at the Kanabec Soil and Water Conservation District at 320-679-1391 to inquire.

More well sealing information available online at the MN Department of Health: <https://www.health.state.mn.us/communities/environment/water/wells/sealing/abandwel.html>

PREVENT A TRAGEDY SECURE YOUR SEPTIC TANK LIDS!!!

Take these precautions to make sure no one accidentally falls into your septic tank:

- 1 Know where your septic system lids or covers are located.
- 2 Routinely inspect the condition of the lids for hazards or problems.
- 3 Keep the lids secure by repairing or replacing all damaged or missing parts.
- 4 Use bolts, screws, or other locks to secure the lids and prevent easy access.
- 5 Never drive or park vehicles on top of septic systems – it can damage or dislodge the cover.
- 6 Never leave an open lid unattended when inspecting or having your septic system pumped. Make sure the lids are secured after working on your septic system.
- 7 Teach children that the septic tank lids are not to be played on or opened.

Owners of septic systems are responsible for ensuring the systems are safe and function properly, including having a secure lid on the tanks.



Per Minnesota Rule Chapter 7080.1970.D.1

Covers for maintenance holes **must be secured by being locked, being bolted or screwed, having a weight of at least 95 pounds**, or other methods approved by the local unit of government. Covers shall also be **leak resistant; and be designed so the cover cannot be slid or flipped**, which could allow unauthorized access to the tank.

Conservation Open House

When: Week of April 19-23, 2021, 8:30-4:00 daily

Bring in your well water for FREE Nitrate testing

Order trees and learn about our Conservation Projects. Tell us about your land-Goals or Concerns. Meet our Conservation Partners-The Natural Resources Conservation Service (NRCS)

Where: Kanabec SWCD

2008 Mahogany St. Suite 3

Mora, MN 55051

(320) 679-1391 for more details

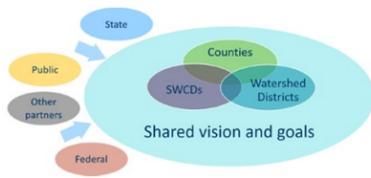


Snake River Planning

We are currently knee deep in the process of working on a watershed wide (multi-county) water plan for the Snake River Watershed. Previously our plans were based on county boundaries. From a planning perspective it makes more sense to develop a plan that entails the whole watershed, see map. This way we can look at all our identified issues and hopefully get to the root of the cause, as we are able to work within all the land area that drains into the Snake River.

Funding for this planning process is being provided by our Clean Water Land & Legacy Amendment Funds, administered through the MN Board of Water & Soil Resources. We have hired consultants to assist in plan writing and meeting facilitation; Stantec formerly Wenck and Freshwater.

The partners working on this planning endeavor include your local units of government (SWCD & County) from Aitkin, Mille Lacs, Kanabec & Pine Counties. We also have state agency staff contributing their knowledge and resources such as the Board of Water & Soil Resources, the Dept. of Natural Resources, the Dept. of Ag. and the Dept. of Health. Public input is being sought throughout this planning process. See below for more details on our process.



Where we've been...

- There are various committees working to collaborate on this plan. The final draft pieces are being reviewed, modified and approved by a policy committee of Supervisors (SWCD) and Commissioners (County) from the four counties involved in this process.
- Two remote public kickoff events were held to announce our proposal to begin this planning process.
- Three remote public input sessions were held around the public sectors of Agriculture, Lakes & Rivers and Forestry.
- We've completed the Snake River 'Land & Water Resources Narrative'. This is a 12-page narrative introducing the natural resources of our Snake Watershed. This includes such items as geology, soils, climate, land use and socioeconomics. It describes the various water resources within the Snake River Watershed. It's a great introduction to the issues that we face within this watershed.
- The planning group has described our desired future condition (or ideal state) for our water resources. We've also drafted a list of concerns:

Issues of Concern in Order of Priority:

- 1 Surface Water Quality
- 2 Land Cover and Use
- 3 Surface Water Quantity
- 4 Drinking Water and Groundwater
- 5 Erosion, Soil Health, and Soil Loss
- 6 Social Capacity
- 7 Habitat
- 8 Climate Change



- An Advisory Committee has been meeting monthly to draft up goals for the above listed Issues. Goals, that will be included in our strategic implementation schedule or action plan. Listing the work, we plan to accomplish to address our identified issues. The big end goal is to clean up our waters and prevent our clean waters from becoming polluted.

Available Payments for Hunting Access

A new program that will soon be available to Kanabec County landowners is the DNR Walk-In Access Program (WIA). The Walk-In Access provides public hunting opportunities on private land that is already enrolled in existing conservation programs or lands with high quality natural cover. This program allows landowners to make private land available to the public for hunting. The land enrolled in the WIA program is only for hunting. No target practice, trapping, camping, or horseback riding is allowed. The landowner in turn can receive \$18 per acre (2021 rates) for land enrolled in the program. The minimum amount of land that can be enrolled in the program is 40 acres and should include high quality wildlife habitat. The program previously was limited to southern Minnesota and western Minnesota counties, but the DNR will be soon expanding the WIA program to include east central Minnesota counties such as Kanabec.



**Don't miss out, Landowners can Sign-Up:
March 15-May 14**

- As new members to our planning group arrived in January, a Snake Orientation presentation was provided to get them up-to-speed on our Snake planning process.

The Plan will be Based on Science and Contain:

- ✓ **Priority Issues & Concerns**
- ✓ **Targeted Implementation Schedule**
- ✓ **Measurable Goals**

Where we're going...

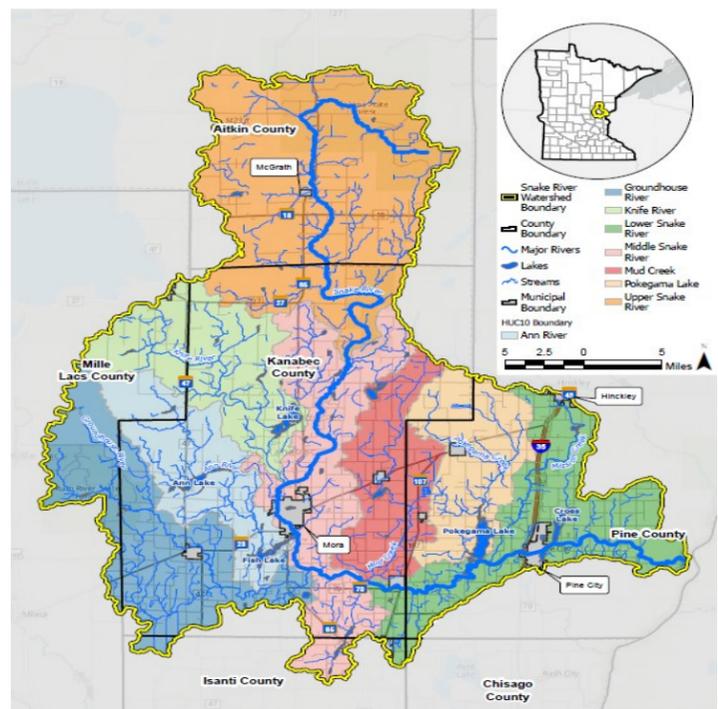
- The Advisory Committee will continue adding details to fill in our strategic implementation schedule. This will be the schedule of activities we plan to accomplish over 10 years to address the issues of concern listed above. Local staff will have input on this to ensure the planned activities are practical, given the staffing level and capacity of our combined local governmental units.
- Through various meetings, the planning group will discuss how to form a functioning multi-county organization to implement the plan. With the many partners involved; this will take a few months. The existing multi-county Snake River Watershed Management Board will be considered as an avenue for implementation.
- In the end, the plan will be reviewed and approved by the MN Board of Water & Soil Resource and all eight local units of government from the four counties involved in this planning process.
- After the plan is completed non-competitive state funds are anticipated to be received to implement this 10-year plan at the local level. The implementation organization that forms as a result of this planning process will work to continue coordinated multi-county efforts to implement this plan and ensure we have clean waters within the Snake River Watershed.

Future Public Input... (dates yet to be determined)

- Two additional public input sessions are planned between now and through this summer we on our draft strategic implementation plan. (~May & this summer)
- A planned public presentation (~April) on our identified issue of concern over 'Too Much Water' or Water Quantity. Due to the complexity of this issue, we are planning this meeting.
- A final public hearing is set for ~Oct. 2021, for final public review of the plan.
- If you wish to provide input on the plan, please contact the Kanabec SWCD at (320)-679-1391 or Deanna@KanabecSWCD.org

For the latest updates, please check out this webpage:

<https://www.millelacsswcd.org/snake-river-one-watershed-one-plan/>



Receive upcoming Kanabec SWCD events and future e-Newsletters by signing up at info@kanabecswcd.org.

Please include your full name and email address.

Ann Lake Treatment Update

Staff from the SWCD in partnership with members of the Ann Lake Watershed Alliance continue to discuss options to address the high nutrient load in the lake bottom sediment of Ann Lake. To back up a little and explain first. The concern is that over a number of years, excess nutrients have accumulated at the bottom of the lake. The nutrients added to the lake come from a variety of sources; landscape runoff, fertilizers, septic systems, as well as natural sources such as the atmosphere. The biggest nutrient of concern is Phosphorus. There are nearly equal amounts of Phosphorus coming from both the lakes' watershed through run-off and from the lakes' bottom sediment being released. Summer lake bottom conditions facilitate the release of phosphorus into the lakes' water column. This is in part, why we see excess algae blooms in the heat of July-August. A feasibility study was completed on Ann Lake in 2018 looking into which treatment options are available to deal with the high phosphorus in the Lakes' bottom sediment. Four treatment options were investigated; looking into their cost, effectiveness, benefits and limitations. A quote from the study states, "The internal load reduction goal for Ann Lake is significantly greater than the watershed reduction goal. It will be extremely difficult, if not impossible to restore Ann Lake to meet state water quality standards without some sort of management strategy to decrease phosphorus loading from the lakes' sediments." The costs of the treatment options range from \$650,000 - \$1.5 Million. For this reason, we have been working to vet the pros and cons of the various treatment options.

Our current proposal is to gather all the stakeholders or representatives of Ann Lake in a series of two meetings over the next six months to come up with a decision on a treatment option for Ann Lake. The dates for these meetings have yet

to be set. Public is invited to attend. We will announce the meetings on our SWCD website.

Once a treatment option is decided; time will be needed to seek grant funding to help pay for a treatment. Local matching funds will be needed to facilitate the grants. We may seek multiple sources for the local match, such as lake associations, local governments and land owner donations. One option still in review is no treatment and to continue working to improve Ann Lakes' water quality through conservation practices around the lake. Improvements have been seen in the recent lakes' water quality sampling, but not enough to show a change in water quality trends. It can take a number of years of water testing to show a change an improvement in water quality.

If you wish to see the outcomes from our two public meetings (8/18 & 9/20) on this topic or the Ann Lake Internal Load Feasibility Study, please see our website at www.kanabecswcd.org/water-quality/lakes/.

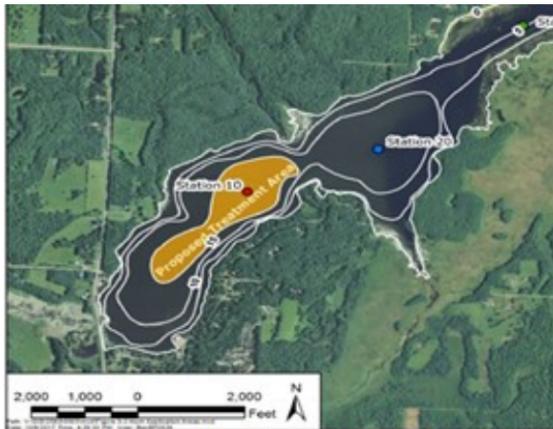


Figure 3-3. Proposed internal load treatment area for Ann Lake.

MEET THE NEW STAFF AND SUPERVISORS

Joshua Votruba-District Technician

Joshua grew up in Brainerd. He attended Bemidji State University graduating with a bachelor's degree in biology and aquatic biology (double major). He started his position with the Kanabec SWCD in July of 2020. He greatly enjoys nature and being outdoors. His favorite hobbies include playing disc golf, fishing, mountain biking and hiking. This position provides him a great opportunity to utilize his past work experience in conservation and environmental fields where he can help conserve Kanabec County's valuable natural resources by working with local landowners to promote and assist with conservation projects. Josh hopes to work with local landowners to create valuable relationships which will result in more conservation practices throughout the county. "Only by working with our landowners can we achieve our goals of reducing erosion and cleaning up our water."

Norma Heggernes-District 2 Supervisor

Norma has lived in Mora since 1981 where she has retired from the Mora School District. Her and her husband, Joe have two children. Matt and his family live in Mora, and Laurel who lives in Denver, CO. Along with her new Supervisor Position she works part time at Kwik Trip and Paradise Theater. Her decision to run as an elected official was brought on by her walking to enjoy the beauty of Kanabec County. She wants a part in preserving the natural resources of her home county. Her goals over the next five years are protecting public lands and waters, which includes all of the proposed first board priority for 2021-2025; increasing public education to create a more informed and involved population in the county.

Jon Sanford-District 3 Supervisor

Jon has been a resident of Kanabec County for over 65 years and lakeshore owner for 40+ years. He is a current member of the MN Deer Hunters Association, Knights of Columbus and Kanabec Conservation Club. He is a past supervisor of Arthur Township and held a position with the Mora and Minnesota Jaycees. His decision to run as an elected official for the district was seeing a great need to improve our waters and land in the county. "I now have the time to do my part to reduce pollution, litter and the neglect of our resources" he states. His goals over the next 5 years is to work to clean up our natural resources by action and education.

Kim Johnson -District 5 Supervisor

Kim and his wife, Sally will be celebrating their 50th Anniversary this fall. They have two children and four grandkids all who love to visit them on the Snake River to fish, kayak, canoe, swim, hike, have bonfires and spend time outside. He sold his business, Team Powdercoating in Hinckley last September which has allowed him to spend more time to play in the woods! He has served on the School Board, Ford Township Board and has been active in communities all his life. As a founding member of the Friends of the Snake River he worked with Dr. Tom Waters and other landowners to successfully limit off-road vehicles in the natural sensitive areas along the shores in the upper portion of the river. "I plan to continue to advocate for protection of the pristine waters of the Snake" he adds. His goals for the next 5 years are to give a good opportunity to bring stakeholders who care for the well-being of the waters as the One Watershed One Plans are developed around the state. He is looking forward to working with these partners developing and implementing a comprehensive plan for the Snake River Watershed.

Financing Solutions for Clean Water

Agricultural Best Management Practices Loans

(AgBMP)

Each year \$10 million is available for loans in Minnesota. The AgBMP Loan Program is funded by the Minnesota State Legislature, the Minnesota Public Facilities Authority, and the U.S. Environmental Protection Agency and is administered through the Minnesota Department of Agriculture. No grants are given by this program The AgBMP Loan Program provides financing at below-market interest rates.

These 3% low-interest loans save you money, making it more economical to implement practices that improve and protect water quality.

Loan Years	Loan Amount	Interest Paid		Interest Savings
		3%	9%	
5	\$10,000	\$781	\$2,455	\$1,674
5	\$30,000	\$2,344	\$7,365	\$5,021
7	\$50,000	\$5,496	\$17,574	\$12,078
10	\$100,000	\$15,873	\$52,011	\$36,138



Loans for:

- Feedlot improvements, manure storage basins, and spreading equipment
- Conservation tillage equipment
- Terraces, waterways, sediment basins
- Shore and river stabilization
- Septic systems
- Other projects

Loan Terms:

- Maximum loan amount is \$100,000
- Maximum loan length is 10 years
- Maximum interest rate is 3%
- Lender may charge customary fees
- Lender may require collateral
- Borrower must meet lending criteria
- Additional local limitations may apply

Spring 2021 Tree and Shrub Ordering

PLEASE PRINT

Name: _____
 Address: _____
 City, State, Zip: _____
 Email: _____
 Daytime Phone: _____

Ordering Instructions

- Please see our website for continued tree/shrub availability. Staff is available to assist you with species selection. Please Call: 320-679-1391
- The prices below do include sales tax.
- All orders under \$150 must be paid in full when the order is placed. Larger orders may pay 50% down and 50% when picked up.
- We accept check or cash payments.



Bare Root Seedlings in Bundles of 25

	Size	Price/Bundle	Bundles Ordered	Total Cost	Description
Evergreens					
Red (Norway) Pine *note smaller size	4-8"	\$37.00			Prefers sandy soil and full sun, low shade tolerance, MN State tree, good for lumber production, reaches 70-80' in height
White Pine *note smaller size	4-8"	\$37.00			Prefers moist soil, medium shade tolerance, Eagle's nest when mature, vulnerable to deer, reaches 80-100' in height
White Cedar	10-18"	\$37.00	Sold	Out	Prefers moist well-drained soil but will tolerate poor drainage, shade tolerant, slow to moderate growth rate, reaches 40-50 feet tall with maturity age of 200+years
Balsam Fir	10-16"	\$37.00	Sold	Out	Grows in moist soils and shaded forests, known for its fragrant needles, slow growing, used as windbreak, reaches 50-75' in height
Tamarack	10-16"	\$37.00	Sold	Out	Prefers moist soil, rapid growing, reaches 65' in height, shade tolerant. Great for growing in bogs and should be planted at wide spacings.
Large Deciduous Trees					
Sugar Maple	18-24"	\$37.00			Slow growing in rich soils, medium shade tolerant, produces syrup, leaves turn yellow to orange or scarlet in fall, reaches 80' in height.
Silver Maple	18-24"	\$37.00			Prefers moist well-drained soils, rapid growth rate, maturity age 50-100+ years, reaches 60-90+ feet in height, intermediate shade tolerance.
River Birch	2-3'	\$37.00	Sold	Out	Prefers moist soils and is typically seen growing around streams. Tree has medium to fast growth rate and reaches 40-70' in height
Shrubs					
Red-osier Dogwood	18-24"	\$37.00			Red-twigged shrub that grows well on shorelines, has high shade tolerance, blooms white May-July, reaches 8-10' in height and width.
American Plum	18-24"	\$37.00	Sold	Out	Prefers sandy soil, intolerant to shade, fast growth rate, reaches 20-25' in height and has a maturity age of 35-65 years.
Hazelnut	18-24"	\$37.00			Prefers moist clay or sandy soils, minimum of 4 hours of direct sunlight each day, medium to fast growth rate reaching 15-18' in height
Wildlife Bundle					
A wildlife bundle is a great way to plant a variety of tree/shrub species to provide excellent wildlife habitat. You'll get 5 bare root seedlings of each of the following: Red-osier Dogwood, Hazelnut, Silver Maple, Balsam Fir and River Birch.					
Wildlife Bundle	Varies	\$45.00			Varies (see above for each species)

Planting Aids					
Root Dip-enough for 100+ trees	1 baggie	\$3.00			Holds moisture around the roots. Good in drouthy conditions or sandy soils.
Plantskydd Spray	1 qt.	\$23.00			Serious repellent for deer, rabbits, chipmunks, voles and others. Made from 100% natural ingredients including dried blood, vegetable oil and water. Available in ready to use spray or concentrated granular.
Plantskydd 1# Powder	1 lb.	\$29.00			
Flags	25	\$5.00			For flagging trees

On SALE thru Tree Pick-Up Day, Early May

Total of Order _____

Make checks payable to Kanabec SWCD.

**To: Kanabec SWCD
 2008 Mahogany St #3
 Mora, MN 55051**

Planning considerations for tree planting...

Are you planting under overhead powerlines?

Trees being planted under powerlines should have a maximum mature height of 25 feet.

Are you planting near underground utilities?

Call to have your utilities flagged before planting so you and your shovel stay safe. Gopher One (811)

Do you know your tree spacing?

Row to row spacing is recommended 10-20 ft. apart based on tree height. Trees in a windbreak are planted closer together. If you plan to mow between trees, space them 4-5 ft. wider than your equipment width.

Within Row Types/Heights	Within Row Spacing Ranges
Shrubs	3 – 8 ft.
Small Trees	8 – 16 ft.
Tall Trees	8 – 20 ft.
Conifers - Cedars	6 – 10 ft.
Conifers – All Others	8 – 16 ft.

Keys to Planting Success:

- Select species based on your site conditions –sun/shade, soils, moisture.
- Plant as soon as possible after receiving your trees. If delay is necessary, keep roots moist but not submerged. Wet newspaper draped over the roots in a plastic bag works well.
- Water in the first year, when rainfall is low.
- Fertilize after the first year.
- Space plants for their full grown size. Fill in with smaller, shorter species for interest.

Are you a Woodland Owner?

Talk to us about Forest Stewardship Plans and woodland landowner resources.