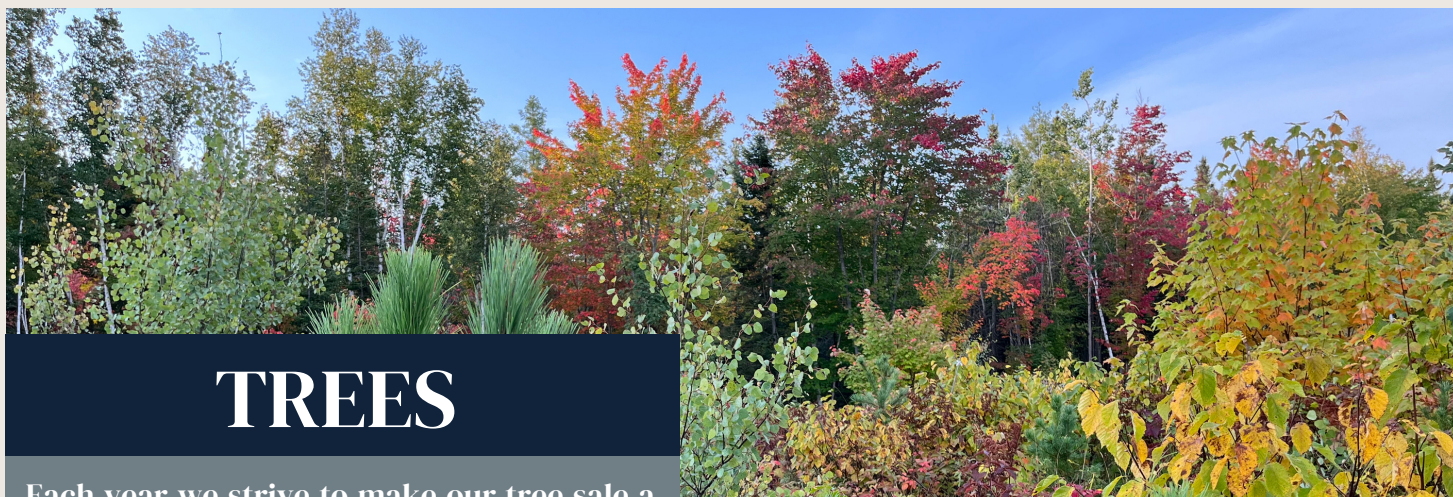


2024

KOOCHICHING

Conservation



TREES

Each year we strive to make our tree sale a little better than the last, and 2024 is no exception! We're offering everyone's favorites and some new species on the 2024 Spring Tree Sale Order included with this newsletter.

We've added new shrubs for your property's wildlife and a new subspecies of white oak (swamp white) which tolerates saturated conditions. Swamp white may be planted as a replacement for ash trees when emerald ash borer effects our very wet swale forests.

It's first-come, first served for our limited inventory, so order promptly to guarantee your trees for May. For more detailed species descriptions, printable order forms, or email links to submit an order, check out our sale webpages at: <http://koochichingswcd.org/treesales/>

Order by: April 21
Pickup by: May 3-4

NATIVE PLANTS

We have plant kits and seeds to suit your needs! Native plants brighten your property, conserve soil, reduce runoff, improve water retention, and bring wildlife to your window. New this year are blueberry shrubs and our Forager's Kit of edible plants! Peek at our offerings inside and consider gifting a kit for Mother's Day.

More information on page 6!

Order by: May 1
Pickup by: May 23



The mission of the Koochiching SWCD is to conserve and protect the soil and water resources by educating and assisting land users in Koochiching County in being good stewards of the land and its natural resources.

DISTRICT SUPERVISORS

George Aitchison	Chair
Eldon Voigt	Vice-Chair
Richard Dreher	Secretary
Jody Reller	Treasurer
Ralph Lewis	Member

Regular Meeting Times

First Monday each month
May–October: 7:00 p.m.
November–April: 6:00 p.m.

DISTRICT STAFF

Pam Tomevi	District Administrator
Marcie Peeters	Resource Conservationist
Sam Soderman	Water Resource Specialist
James Aasen	Forest Resource Specialist
Jolen Simon	Program Coordinator

COMMITTEES

Budget	Ralph Lewis & Eldon Voigt
Personnel	Ralph Lewis & George Aitchison
Education/Public Relations	Jody Reller & Richard Dreher

SPECIAL ACTIVITIES

TSA 8 North Central MN JPB	Jody Reller
Laurentian RC&D Council	Jody Reller
Big Fork River Board	George Aitchison & Richard Dreher
Little Fork/Rat Root River Board	Jody Reller & George Aitchison
MN SWCD Forestry Association	Eldon Voigt

A SUCCESSFUL ENVIROTHON EVENT IN 2023

Each year, Soil and Water Conservation Districts (SWCDs) around the nation take part in an event called the “Envirothon”, an outdoor learning event where high school students (grades 9-12) and junior high students (grades 6-8) attend five sessions on environmental issues.

There were seven teams in the Senior Division (one from Northome) and four teams in the Junior Division (three from Northome!). In the senior division, Northome took 4th place. However, in a turn of events, the 1st-3rd place teams were unable to attend the State event, so Northome was able to compete! It was a wonderful experience for these youth to compete at this level.. In the Junior Division, Northome teams took 1st and 3rd places. Let’s give a hand to our local

Koochiching County teams! Thank you to our 2023 sponsors: Border Bank of Int’l Falls, the Rainy Lake Sportfishing Club, Coca-Cola Bottling, Northome Grocery, 1st National Bank of Deerwood, Bremer Bank of International Falls, Ridge Runners Snowmobile Club, and the Koochiching County Farm Bureau.

We are right back in the swing of things in 2024! Our Area VIII planning team will again host the Area VIII event in Bemidji State Park.



2023 Northome Senior Team

ONE WATERSHED, ONE PLAN

Rainy River-Rainy Lake

By Pam Tomevi

In April of 2023, the Koochiching SWCD received a grant from the Board of Water and Soil Resources (BWSR) to develop a comprehensive watershed management plan through the One Watershed, One Plan program. The Rainy River-Rainy Lake One Watershed, One Plan (RR-RL 1W1P) is a planning partnership between Koochiching County, Koochiching SWCD, the City of International Falls, and the City of Ranier. This partnership aims to maintain the high quality of its natural resources and restore (when appropriate) valuable resources in the RR-RL. Through this process, the planning partners, with guidance from local experts and stakeholders, will develop a 10-year comprehensive watershed management plan that contains measurable goals and implementation actions to help achieve those goals.

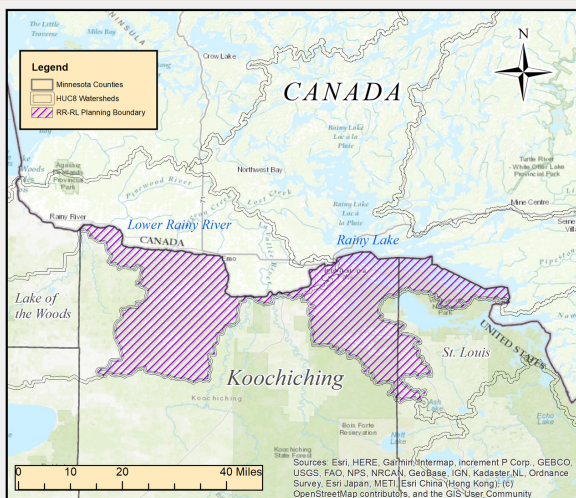
The planning process for the RR-RL 1W1P is driven by local units of government, guided by an Advisory Committee comprised of local stakeholders, experts, and members of state and federal agencies. The Policy Committee (the

decision-making group for the plan) is made up of elected officials from Koochiching County and SWCD, City of International Falls, and City of Ranier. The process began during the summer of 2023 when plan review authorities and stakeholders were invited to submit priority resource concerns they felt should be addressed by the plan. On September 7, 2023, the RR-RL 1W1P Policy Committee hosted a public kickoff meeting at the Ranier Community Building in Ranier, MN. This meeting was held to inform watershed community members about the watershed and the 1W1P planning process, gather viewpoints from citizens about important resources in the watershed, and to capture their priorities for this plan.

Next, a series of Advisory Committee topic meetings were scheduled to cover the main resource concern topics in the watershed:

- Water Quality – held November 13, 2023
- Water Quantity and Hydrology – held December 11, 2023
- Groundwater – held January 8, 2024
- Habitat and Forests – held 12, 2024

After the final wrap up meeting scheduled for March 11, 2024, the plan writing consultant, Houston Engineering, Inc. will begin drafting the Rainy River-Rainy Lake 1W1P. The draft plan is scheduled to be ready for review by the end of summer 2024. For more information and to stay updated on the planning process, please call Pam Tomevi, District Administrator at 218-283-1174 or visit our website at <https://koochichingswcd.org/rainy-river-rainy-lake-one-watershed-one-plan/>



**Boundaries of the Rainy River-Rainy Lake
1W1P Planning Area**

JACKFISH BAY CATTAIL PROJECT UNDERWAY

By Marcie Peeters

Starting Out.

In 2020, Rainy Lake Property Owners Association (RLPOA) partnered with Koochiching SWCD and submitted a project proposal to the Conservation Legacy Partners Grant (CPL) program. The project aims to remove nine acres of hybrid cattail mats, increase water flow, and improve native habitat in Jackfish Bay. Funding was approved in December of 2021, and planning began. After delays due to the historic flood in 2022, our long-awaited plans went underway this past fall; we finally got our hands dirty, knee-deep in cattail muck.

Cutting Cattails.

This heavy, mucky subsurface material made up the bulk of the hybrid cattail biomass. Lakes Aquatic Weed Removal (LAWR) spent 97 hours cutting and over 670 hours collecting the biomass and disturbed muck that gathered on the water's surface. This biomass consistency made it challenging to work with at the drop site, where the wet material altered site accessibility and dozer equipment capacity. To manage these challenges, the biomass



LAWR cuts cattails on the east side of CR 134.

Photo Credit: Tom Dougherty



Dump site: Cattails after draining with remaining mud.

required three days of partial draining at the removal site before hauling. Although necessary, this resulted in accumulation and crowding at the work areas. LAWR handled the biomass 2-5 times for this draining and hauling process. As work continued through the end of October, the threat of freezing conditions at the removal site became a concern. Project partners stepped up to the plate, working closely with contractors to clean up and restore the public landing before the end of the season. LAWR hauled 620 truckloads of biomass, approximately 12 cubic yards per load, to the designated drop site and Kennedy Trucking assisted with 45 truckloads to the local transfer station. Phase I wrapped up in the first days of November as snow started to fall, completing 8 out of 9 acres of cattail removal.

So, what's next?

Partners met in the first week of December to recap project progress and discuss plans going forward. LAWR will return in early spring to polish off cattail removal on the west side of

Continued on next page

JACKFISH BAY CATTAIL PROJECT UNDERWAY

(Continued)

County Road 134, giving ample time for the Koochiching County Highway Department to reconstruct CR134. The road will be raised to incorporate a navigable box culvert, 10 ft x 16 ft in size, to allow for increased water flow and safer road conditions during floods. The road project is estimated to be completed by Fall 2024. Native emergent vegetation will be seeded in the transition areas along the northern edge of the recovered wetland and terrestrial vegetation around the public access to further assist with site restoration. Once the dust has settled in the fall, you might catch us on the open water, introducing wild rice to the bay.



LAWR cuts cattails on the east side of CR 134

Photo Credit: Tom Dougherty

Deeper in the reeds... Why hybrid cattails are an issue and why this project is important.

Native broadleaf cattail and non-native narrowleaf cattail are likely the creators of the hybridized cattail species *Typha x glauca*, commonly named hybrid cattail. This hybrid species is known for its hyper density and

impressive ability to spread rapidly through their rhizomes, making them an invasive threat. When hybrid cattails gain a foothold, they choke out native habitats and create a monoculture, driving out fauna which depend on plant diversity. They make for a poor food source, inadequate cover for fish and wetland birds, block out sunlight, reduce dissolved oxygen, trap nutrients, and slow the natural flow of water. Through our efforts in this project, our county sets an example of addressing the invasive hybrid cattails. The Jackfish Bay Cattail Removal Project will offer other communities across the state a model of ecosystem management and wetland restoration for years to come.



Staff Spotlight

We are pleased to announce that Marcie Peeters joined our team on June 19, 2023 as our new Resource Conservationist.

Marcie studied at the University of Minnesota Duluth where she earned a B.S. in Environmental Sciences. She originates from a small farming community in northeast Ottertail County. Her youth spent in the woods, gardens, fields, and waters shaped a passion for protecting our natural resources. She enjoys camping, reading, tending plants, and other simple joys in life.



MOTHER'S DAY IS MAY 12TH!

There's no better way to celebrate Mother's Day than with flowers. Our Native plant kits offer a variety of colors and textures that can be enjoyed year after year.

To gift a kit, please fill out the order form enclosed with your selections and remember to **check the box telling us you'd like to gift your order to a Mother near you**. We will provide you with a Mother's Day Gift Voucher so she has something to open on her day. Our plant kits are available for pickup on Thursday, May 23rd.

Mothers bring their Mother's Day Gift Voucher in on May 23rd to receive their gifted Native Plant Kits!

Contact the Resource Conservationist (218) 283-1175 for more information.



MULCHING TIPS FOR THE GROWING SEASON

By Marcie Peeters

Beyond achieving manicured landscaping aesthetics and a polished look, mulch is a powerful tool that saves you time while helping you toward a productive garden.

Mulch moderates soil conditions.

The top layer of soil is home to the plant roots that do the lion's share of nutrient uptake. Protecting this topsoil ensures healthier root function. Placing mulch on exposed earth protects your soil from being overbaked in the sun. A soil crust can form from overexposure to the beating sun, making a barrier to rain and watering, effectively blocking moisture from penetrating the surface. Mulch keeps the soil moist and alleviates soil compaction, so your garden is better prepared for absorbing water and reducing runoff. While mulch opens the passage for water in, it creates a blanket that keeps it in, too – protecting against evaporation and establishing a drought-tolerant garden. This means you can water less!

Our clay soils are known to lack organic material. As natural mulches break down over time, they contribute to the organic material

inputs, feeding you soil and increasing available plant nutrients. Mulching can also save you time on weeding. Weeds can be significantly suppressed when mulch blocks them from the sunlight necessary for germination. Applying 2-4 inches of mulch should offer the best results.

Different strengths for different uses.

Dried grass clippings or shredded leaves are excellent between plants in your vegetable garden. They're free materials and last the summer but contribute to your soil health more quickly. *Straw* is another cost-effective way to keep weeds out and soil moisture in. It lasts longer than grass clippings from your lawn and doesn't carry unwanted seeds.

Wood mulch is a popular option and offers you a variety of choices. Wood chips are excellent landscaping material around shrubs, trees, and footpaths while protecting from soil erosion and moisture loss. They add to aesthetics, but be cautious of dyed wood mulches, often made with recycled wood that was likely treated for its original use.

SEDIMENT FINGERPRINTING WORK

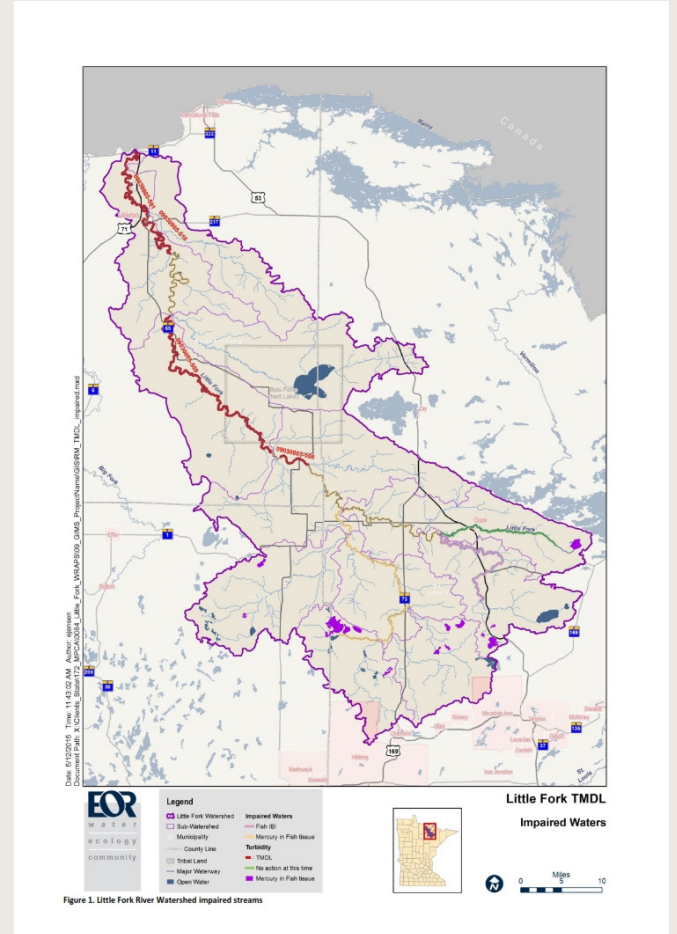
By Sam Soderman

What is Sediment Fingerprinting?

The sediment fingerprinting process is an analysis of sediment that can attribute particles' source to different locations in the watershed. The procedure establishes a set of physical and/or chemical properties (tracers) based on samples collected in upland or channel locations identified as potential sources of sediment. These properties are unique for each location within the watershed. Fluvial sediment samples (sediment transferred by a river system) exhibit a composite, or "fingerprint" of source properties. Through statistical procedures, the target sediment properties can be matched to their respective upland or channel source "fingerprints". Determining the sources (erosion sites) and sinks (deposit locations) of sediment is important in developing strategies to reduce sediment loads to water bodies impaired by turbidity.

Little Fork River Watershed

This project is being led by the United States Geological Survey (USGS) and the Minnesota Pollution and Control Agency (MPCA) with support from Koochiching SWCD and North St. Louis SWCD to address a 105-mile stretch that is impaired for turbidity (suspended soil particles in water). While it has been established that there is an excess of sediment present in the Little Fork River, it's been unknown as to how to proceed in reducing it to acceptable levels. Identifying sediment sources is the first step in targeting sediment-laden stream reaches for projects.



Impairments within the Little Fork River Watershed. Red shows the 105-mile stretch of turbidity being addressed in this project.

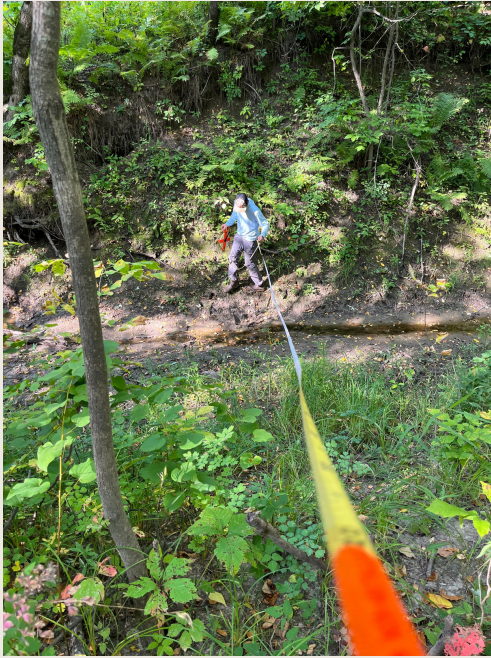
Progress in 2023

Project fieldwork was wrapped up and data has been reviewed. Projects results are being written into a final report for public consumption in the winter of 2024. This final report will give local partners a starting point for addressing the sediment impairment in the Little Fork River Watershed. The results will be used to pinpoint areas for project implementation in the watershed to reduce the amount of sediment that is entering the river. Local partners will be collaborating with local, state, and federal agencies to complete projects throughout the watershed in the years to come.

Continued on next page

SEDIMENT FINGERPRINTING WORK

(Continued)



***Koochiching SWCD staff measure
a ravine***

Rainy River-Rainy Lake Watershed

A similar project has begun in 2023 that will look at sediment and phosphorus in the Rainy River and its main tributaries (Little Fork River, Big Fork River, and Rapid River). This study is a collaboration with USGS, MPCA, and Lake of the Woods SWCD to map sediment and the transfer of Phosphorus throughout the Rainy River system into Lake of the Woods. This is a grant funded project through the Legislative-Citizen Commission on Minnesota Resources (LCCMR).

Lake of the Woods (LOTW) is a vital ecosystem impacted by recurring harmful algal blooms. The Rainy River basin comprises 80% of the total drainage area to LOTW and contributes 45-75% of the total phosphorus (TP). Despite major reductions in total phosphorus concentrations in the Rainy River, blooms persist in downstream Lake of the Woods.

Previous investigations have explored the inputs of phosphorus from the Rainy to LOTW, but none to date have explored the detailed phosphorus chemistry of sediments in storage and in transport in this large river network. As a result, we lack understanding of how legacy phosphorus in this system may serve to fuel blooms downstream now and into the future.

Last year staff from LOTW SWCD and Koochiching SWCD started gathering data on three of the eight sampling locations. This work will continue in 2024 and be completed at the end of the year. Water quality samples and sediment samples will be taken during ice out and throughout the open water season to help understand the sediment and phosphorus transfer in the Rainy River and its tributaries. In conjunction with the local sampling efforts, USGS staff will be mapping sediment and collecting data in the Rainy River and Four Mile Bay to better understand the phosphorus chemistry of sediment in storage and in transport.



Gathering sediment from the Rainy River

Continued on next page

SEDIMENT FINGERPRINTING WORK

(Continued)

The study will use geophysical tools to examine the extent and thickness of fine sediment deposits. It will analyze how phosphorus is bound to sediment in the stream bed and in suspension throughout the Rainy River and in three key tributaries on the U.S. side of the river. Long-sediment cores will be collected in Four Mile Bay to link the results of this investigation of legacy phosphorus storage to the longer-term history of sediment deposition in this dynamic river mouth and the lake itself. The results of this study will provide critical information for resource managers, pinpointing hotspots of legacy phosphorus introduction and storage. This study will identify the in-stream source areas with the greatest potential to contribute to the bioavailable pool of phosphorus downstream and to fuel algal blooms into the future.

*Fun
FACT*

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LAKE SHORE
THAN THE
OCEAN SHORELINES
OF
CALIFORNIA
FLORIDA
& HAWAII**

SOURCE:

MPR

COMBINED!!

WATERCRAFT INSPECTION PROGRAM

By Sam Soderman

Koochiching SWCD, in conjunction with Koochiching County, will be implementing watercraft inspections for the 8th consecutive year on public water accesses around the county. Koochiching County and the SWCD have been working to stop the spread of invasive species entering and exiting area lakes and rivers by providing watercraft inspections to boaters and recreators on public waters. The goal of this program is not to only inspect watercraft but also to educate boaters on the best practices to prevent the spread of invasives. This program is part of a statewide effort to stop the spread of aquatic invasive species. Staff are trained and authorized by the MN DNR to inspect watercrafts. We have also been partnering with Voyageurs National Park and surrounding SWCDs to broaden our inspection program to surrounding lakes and rivers.



Photo courtesy of DNR

OUTSTANDING FOREST STEWARD OF THE YEAR

Wayne Skoe



Wayne and his two sons, Paul and Erik

Koochiching Soil and Water Conservation District (SWCD) recognizes a landowner leading the efforts in conservation practices.

Each year, the state's SWCDs recognize individuals and organizations for outstanding accomplishments in implementing conservation practices and improving Minnesota's natural resources.

Wayne Skoe was selected posthumously as the 2023 Koochiching County Outstanding Forest Steward. He was a long-standing advocate of sustainable forestry and the folks that depend on forest resources in northern Minnesota. He worked with a wide variety of groups related to natural resources and thoughtfully shared his viewpoints and knowledge based on years of experience in the woods, running his own business, and managing his own land. Wayne went out of his way to support the work of the SWCD knowing that it was important for his constituency.

“Wayne's forestry management always took into consideration tree health and what was best for the forest overall” ,

said James Aasen, Koochiching Soil and Water Conservation District Forest Resource Specialist. “He also passed his love of forestry down to his family”. Wayne organized and conducted a white spruce interplanting in a low density stand

previously damaged before he owned it. He and his sons removed encroaching brush and planted the open areas with white spruce that are now approaching 20 years old. Wayne was particularly fond of planting fruiting shrubs and trees around the edges of trails knowing that these were corridors for birds and other wildlife. "We're very proud to honor Wayne and his family," said Ralph Lewis, Chair of the Koochiching SWCD Board of Supervisors. “They have been longtime supporters of the SWCD and of the forestry overall.”



Erik Skoe alongside interplanted spruce

NEW CONSERVATION COST SHARE OPPORTUNITIES

In 2023, Koochiching SWCD worked on further expanding our ability to provide private landowner cost-share opportunities for several popular conservation practices. Utilizing a BWSR Soil Health Cost-Share grant, projects to install **native species plantings** may be eligible for partial funding if they can show a benefit to “the capacity of soil to function as a vital living system that sustains plants, animals, and humans.” This could be replacing introduced grasses like lawn or hay grasses or stabilizing soils at risk of erosion through planting deep-rooted species. We can work with landowners to design native species plantings through site mapping, species selection, discussing site preparation requirements, and guidance on seed sourcing. Once a project is determined to be eligible, the grant can pay up to 75% of the total cost of native seed.



Wild Bergamont, a native perennial

Tree planting continues to be the most popular conservation practice for private landowners in Koochiching County. Tree plantings benefit soil and water conservation in multiple ways:

Through extensive root establishment; providing habitat for bird and mammal species; and by improving aesthetics in disused open areas like old fields. Plantings can also potentially generate considerable income once the trees become old enough to harvest. Understanding the cost barriers of purchasing trees at the quantities necessary to fill large areas—typically 500-1000 trees per acre—the SWCD is now able to offer cost-share assistance to landowners looking to conduct tree planting on a larger scale. Like most of our services, we can work with you to design a planting through mapping and species selection, as well as determining what site preparation needs to be conducted for the trees to be successful. These projects may be eligible for 75% cost-share through the BWSR Soil and Health grant. In addition, the SWCD has a pull-behind tree planting implement for rent that can be used to plant large quantities of trees quickly and effectively. Feel free to inquire about availability and towing equipment requirements.



Rentable pull-behind tree planting implement

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NEW CONSERVATION COST SHARE OPPORTUNITIES

(Continued)

The spread of invasive species continues to be a significant issue for Koochiching County. Concern about invasive terrestrial (land) plants, especially wild parsnip, continues to grow and in 2023 the SWCD worked to modify an existing cost-share opportunity for landowners who would like to work on controlling these spreading pests on their own lands. Using a BWSR Cooperative Weed Management Grant, landowners can now apply for cost-share assistance for practices that are used to remove these plants on their own property, like mowing and herbicide application. Our technical staff can help identify the species present and measure the treatment area. After the scope of the project is assessed, treatment options will be suggested and eligibility for 75% cost-share associated with weed control may be an option. Some of the most common invasive species in our county that may be serious issues for ecological or human health on private lands include wild parsnip, Canada



A typical infestation of wild parsnip.

thistle, European buckthorn, spotted and meadow knapweeds, and leafy spurge.

A great resource for identifying and researching control methods for invasive plants is the Minnesota Department of Transportation Noxious weed book found online at:

https://edocs-public.dot.state.mn.us/edocs_public/DMResultSet/download?docId=28540125



For more information on these cost-share opportunities or to get started on developing a project, reach out to:

Forest Resource Specialist, James Aasen

218-283-6742

james.aasen@co.koochiching.mn.us



**THANK
YOU!**

With our mission “to conserve and protect the soil and water resources by educating and assisting land users in Koochiching County in being good stewards of the land and its natural resources”, the Koochiching SWCD has worked hard over the past 70 years to become good leaders in natural resource management and sustainability.

The support and guidance of our many local, state and federal partners and the cooperation of local land users, patrons, and numerous volunteers has allowed the Koochiching SWCD to make tremendous progress in achieving our mission.

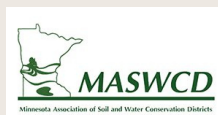
As we continue advancing our programs and service delivery, we are extremely grateful for these strong and growing partnerships...without them, we would not be where we are today!

CELEBRATING

70

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SPECIAL THANKS TO OUR CONSERVATION PARTNERS





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Program details

- Soil tests done year-round
- Soil packets available at the SWCD office

Program benefits

- Cost savings for farmers
- Reduction in purchased lime and fertilizer usage
- Improvement in crop economics

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