



# Hubbard County Soil and Water Conservation District

## Report and Workplan

603 NORTH CENTRAL AVE, SUITE 100  
PARK RAPIDS, MN 56470  
218-732-0121 EXT 4  
HUBBARDSWCD.ORG



SCAN CODE TO HUBBARD  
COUNTY FOREST WATER VIDEO



SCAN FOR MN WATERSHEDS  
VIRTUAL LAB




SCAN FOR HUBBARDSWCD.ORG



HUBBARD COUNTY  
Soil & Water  
Conservation District

PRINTED AUGUST 2025



Twenty years from now you will  
be more disappointed by the  
things you didn't do than by the  
ones you did do.

### Hubbard County SWCD Mission Statement:

*The purpose of the Hubbard County Soil and Water Conservation District is to conserve, protect, and enhance the soil and water resources of Hubbard County by providing leadership, education, and assistance.*

Hubbard County SWCD is one of 88 districts in Minnesota. The district is governed by a board of 5 elected members who each represent four to seven townships within our county and who provide oversight and guidance to the district staff.

We are tasked with providing local, on-the-ground assistance to local communities and private landowners to protect our soil and water resources for present and future generations.

Hubbard County consists of a diverse landscape which includes some of Minnesota's most beautiful lake shores, several trout fishing streams, farmland, and forestland. We have 639,000 acres total, with approximately 89,500 acres of cropland, 57,510 acres of lakeland, and 415,350 acres of forestland.

The majority of our water flows downstate into the Twin Cities region—when we protect our water quality locally, we also protect the drinking water for the most populous part of our state.

Hubbard County's population was 22,132 in 2023. Rapid growth in the county is expected through 2030, which will likely create more demands on its natural resources.

### OUR TEAM

District Staff:



Crystal  
Mathisrud  
District Manager



Brandon  
Spain-Brist  
Forest  
Resources  
Tech



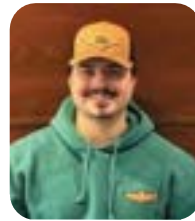
Jake  
Shaughnessy  
Watershed  
Planner  
Coordinator



Rachel Rudquist  
Administrative  
&  
Bookkeeping  
Assistant



Megan FitzGerald  
Community  
Engagement &  
Grant Reporting  
Coordinator



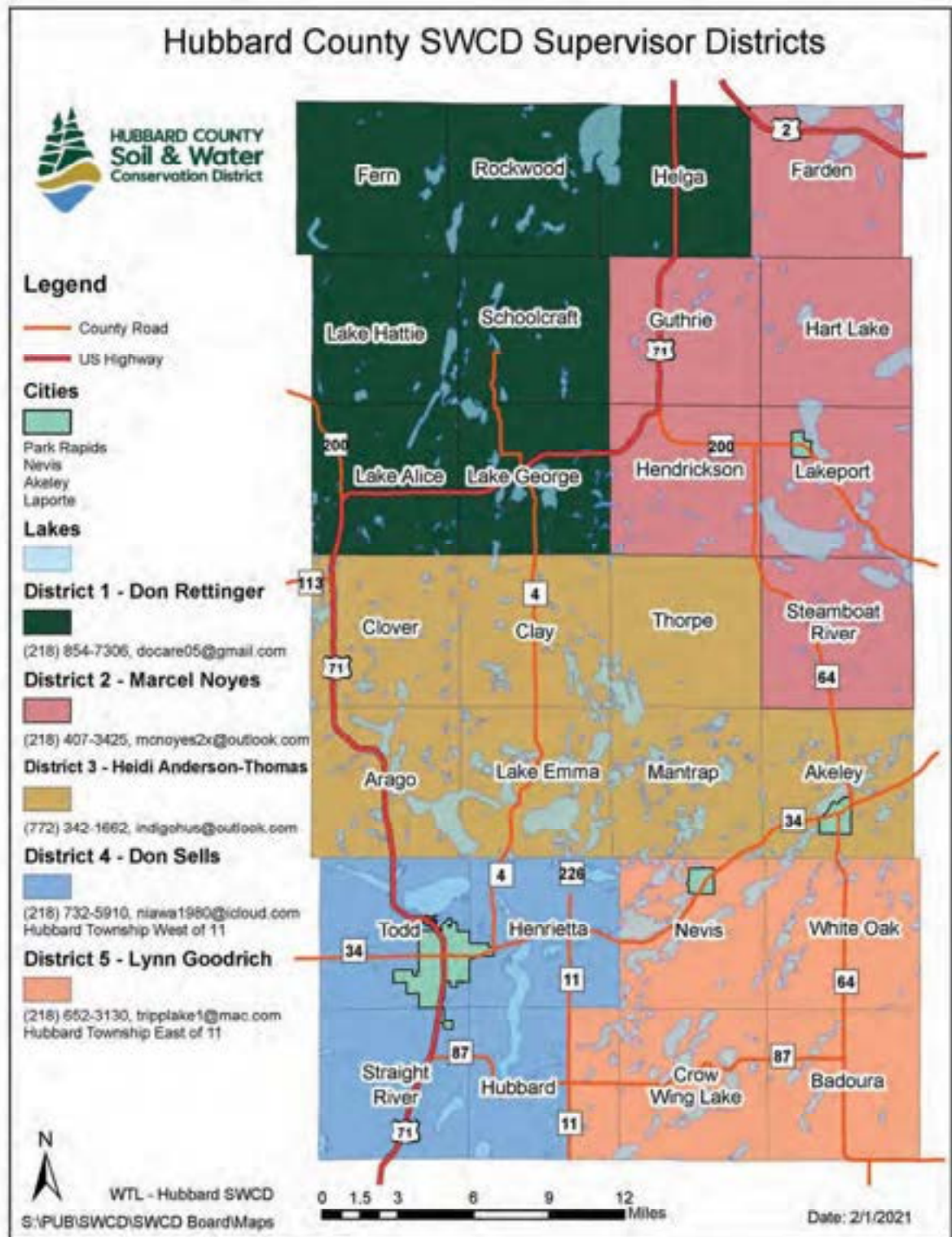
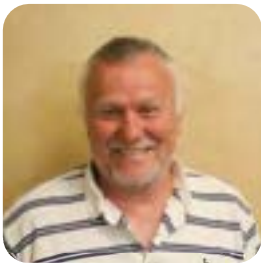
Jack Slipy  
Conservation  
Projects  
Technician



Grant Helgestad  
Forest  
Resources  
Technician



... Conservation: The Greatest  
Good to the Greatest Number of  
People for the Longest Time.  
-- Gifford Pinchot





HUBBARD COUNTY  
**Soil & Water**  
Conservation District

## 2024 HCSWCD ACCOMPLISHMENTS

- Over 3,200 approximate acres of Forest Stewardship Plans (FSP) in 2024 for a total of 22,800 approximate acres in FSP since 2012.
- Provided assistance for 5 cost-share projects, with 4 being on the lake shore and 1 being agricultural.
- 36 Shoreline Stewardship Site Visits with technical assistance provided to landowners.
- Spoke at 9 Lake Association Events, and promoted shoreline stewardship to approximately 302 attendees.
- 5 Reinvest In Minnesota (RIM) easements were completed, with 5 in progress to provide permanent protection of private lands: over 400 acres and more than 14,000 feet of shoreline. As of 2024, Hubbard County has over 1,100 acres in RIM Conservation Lands.
- Over 12,000 trees sold and distributed at our Annual Tree Sale
- 20 lakes monitored collaboratively with lake associations, townships, and the Minnesota Pollution Control Agency (MPCA)
- 11 Rivers monitored for the Minnesota Pollution Control Agency (MPCA)
- Over 164 Wetland Conservation Act (WCA) site visits & technical assistance provided for Wetland, Cost-Share, Shoreline, and Water Quality Projects
- Hosted the Freshwater Festival for approximately 300 kids and several classroom demonstrations/projects at local K-12 Schools
- EPA Environmental Education for seed and cone collection and DNR tree implementation grants awarded.
- Five easement/forestry outreach events were held in the Mississippi River Headwaters Watershed.
- Approved Nine Key Element plan for EPA 319 grant.
- The Crow Wing River Comprehensive Watershed Management Plan has been approved and will start implementation in 2025.
- Collaborated with 2 separate Bemidji State University classes to create online resources for the EPA environmental education grant.

(218) 732-0121 [hubbardswcd.org](http://hubbardswcd.org)  
603 North Central Ave, Suite 100.  
Park Rapids, MN 56470







HUBBARD COUNTY  
**Soil & Water**  
Conservation District

## 2023 HCSWCD ACCOMPLISHMENTS

- Over 1,400 approximate acres of Forest Stewardship Plans (FSP) in 2023 for a total of 20,4820.50 approximate acres in FSP since 2012.
- Provided assistance for 2 storm-water projects to reduce erosion and runoff into lakes
- 3 Reinvest In Minnesota (RIM) easements were completed with 15 in progress to provide permanent protection of private lands: over 1,400 acres and more than 50,000 feet of shoreline. As of 2023, Hubbard County has over 900 acres in RIM Conservation Lands.
- 15,000 trees sold and 600 trees planted with the Camp Wilderness Boy Scout Camp
- 5 lakes monitored collaboratively with lake associations and the Minnesota Pollution Control Agency (MPCA)
- Full system monitoring for the Necktie River upstream of Hart Lake for background data on the EPA 319 Project
- Developed education partnerships with the Mississippi Headwaters Audubon Society and Headwater Science Center
- 362 Wetland Conservation Act (WCA) site visits & technical assistance provided for Wetland, Cost-Share, Shoreline, and Water Quality Projects
- Hosted the Freshwater Festival to over 300 kids and several classroom demonstrations/projects at local K-12 Schools
- Awarded a No Child Left Inside grant with Neilson Spearhead Center and Audubon to provide rod-building classes for over 90 students
- Awarded the Midwest Glacial Lakes Partnership (MGLP) grant to provide education and technical assistance for shoreline owners to promote shoreline stewardship Over 450 people directly reached, 60+ shoreline properties, and 3.5+ miles of shoreline visited so far. Spoke at 5 lake association annual meetings with more to come in 2023
- Awarded the Conservation Partners Legacy (CPL) grant which will be used to enhance 10 acres of habitat in school forests for 3 schools in Hubbard Country
- Approved for EPA 319 grant to provide in-depth conservation efforts in the Steamboat sub-watershed for many years
- Crow Wing One Watershed One Plan is in its planning phase spanning 9 counties with HCSWCD as the planning grant fiscal agent

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# GROW AND MANAGE YOUR BEST FOREST

Fish are a forest product, forests protect water quality while providing recreation, habitat and carbon sequestration (clean air).



## Forest Stewardship 2024

- 26 new Forest Stewardship Plan (FSP) applications
- More than 2,400 new acres in the county.
- Over 24,000 acres in FSP since 2012.

## Conservation Easements

- Land Protection Outreach Collaboration with MHB - multiple easement and SFIA FSP applications in progress and gearing up for more
- 4 RIM Conservation Easement completed in 2024.
- 4 additional easement applications submitted for a total
- 400 acres and
- 14,000 shoreline feet
- Hubbard County has 960 acres in RIM Easements
- Additional easements in process with Forests for the Future, MHB, MLT and NWLT -- collaboration to strategically protect large corridors adjacent to priority lakes and streams

## School Forests

We are finishing work with the 3 schools in Hubbard County to do work in their school forests, through the CPL Grant. Work would include plantings of trees/shrubs, installation of pollinator gardens, invasive species removal, and more.



Follow the code below to check out our Virtual Lab

## Tree Sale

- 1000+ trees given to schools and families by HCSWCD staff and supervisors 2020-2022
- 12,000+ trees sold 2020
- 15,000+ trees sold 2021
- 14,000+ trees sold 2022
- 13,300+ trees sold 2023
- 11,000+ trees sold 2024

## New Forestry Projects - Grants & Partnerships

- Protecting Priority Lakes in the Upper Mississippi Basin: Managing Forests for Water Quality Protection
- Family Forest
- Forest Management for Carbon Sequestration White Paper Project
- Priority Lakes: Meeting Protections Goals and Multiplying Benefits
- Tri-State Forest & Water Partnership
- Community Canopy & Urban Forest Garden Pilot



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# ENV ED CONE AND SEED COLLECTING COMMUNITY GROUP PAGE & FORUM

## About The Env Ed Grant

Hubbard County SWCD was awarded an environmental education grant with the goal of ensuring the quality of our air, water, and soils through the education of managing forests and stewardship of private lands.

This grant also focuses on solving the statewide seed and cone shortage through education and the providing necessary resources.

## Plan Going Forward

HCSWCD will create an online virtual lab hub consisting of 3 modules that will include various environmental education topics, as well as provide a platform for all the resources needed for seed and cone collection. The modules in the virtual lab are the following.

- **Module 1. Education**

An educational module that is designed to create a deeper understanding of the ecosystems in Northern Minnesota. This module is designed to be an easy to use educational resource that is compliant with Minnesota Science Education Standards.

- **Module 2. Seed and cone collection**

An all inclusive module with detailed descriptions of the entire cone/seed collection process. Information regarding how, when and where to collect as well as kits available to do so are included in this module. This module also includes a community forum and a visual representation of the impacts the collection efforts are having.

- **Module 3. Project Planning and Design:**

This module introduces project planning and design concepts to prepare students and participants to be environmental stewards throughout their lives. This module includes tools for basic project design and proposal templates that can be used either in a classroom or other group to plan, decide, take action, and document the results of those actions.

## Goals

Interweave teaching about multiple environmental concepts with the skill of cone collecting for sale to the State Nursery as a method to fund educational programs and projects permanently.

## Why a Seed/Cone Collection Foundational Project?

Local schools and educational groups have a parallel problem. They are keen to offer students and community members hands-on environmental education opportunities to grow future environmental leaders and action takers, but they lack funding and support to build and sustain these programs which are frequently high time and high-cost activities. The MN DNR State Nursery purchases seeds/cones harvested from local forests to grow each crop of new seedlings for spring sale and planting across the state. This is a perfect opportunity for hands on environmental education that can be self funded by the sale of seed/cones to the nursery.

## Virtual Lab

Our Virtual Lab currently has a vast amount of general educational material targeted for all ages. We also host a few citizen science pages on our Virtual Lab to offer local engagement from community members.

To access our Virtual Lab and learn more scan the code below!





PROTECT WATER QUALITY,  
QUANTITY AND FISH HABITAT IN  
OUR

# LAKEs



Water is the driving force of all  
nature - Leonardo da Vinci

## 2024 News and Accomplishments:

- Added capacity and funding for lake and lakeshed planning through the LCCMR and LSR competitive grants process.
- Partnered with Steamboat Lake Association to draft a lake plan and install a demonstration pollinator garden at the Steamboat Lake public landing.
- Provided assistance shoreland cost-share projects.
- 36 Shoreline Stewardship Site Visits with technical assistance provided to landowners.
- Spoke at 9 Lake Association Events, and promoted shoreline stewardship to approximately 302 attendees.
- Planned and hosted the 2024 Legislative Water Tour to show legislators and other participants the good work our landowners and community are doing to protect and manage our land and water resources.

## Looking to learn more about your lake?

### Lake Shore Technical Assistance

The Hubbard SWCD offers a wide variety of services that can help inform lake shore owners and associations about the health of their lakes.

We have the technical skills and equipment to conduct a wide range of lake monitoring activities.

- Water Chemistry
- Fish Habitat
- Aquatic Invasive Species Early Detection
- Aquatic Invasive Plant Survey
- Shoreland Restoration and Stabilization

If you have concerns about storm-water, water sampling, or shoreline erosion please reach out to Jake Shaughnessy at 218-732-0121 ext 112 or [jake.hcswcd@gmail.com](mailto:jake.hcswcd@gmail.com)





# Conservation of Deep Lakes

## Protecting Minnesota's Coldwater Gems

*Prepared by Peter Jacobson for the Hubbard County Soil and Water Conservation District 8/20/2024*



Christopher Morey

### Minnesota's Lake Gems

Deep lakes with good water quality are special and include some of the finest lakes in Minnesota. Generations of Minnesotans have enjoyed recreating in the crystal-clear water with boats, canoes, and kayaks, in addition to simply looking at the beauty these lakes represent. Deep lakes are also some of the best fishing lakes in the state and a destination for many anglers, including those from other states. Resorts, campgrounds, marinas, and cabins benefit from the high-quality nature of these lakes and form a cornerstone of the tourism economy so important for northern Minnesota. Deep, clear lakes are deeply embedded in our state's natural heritage and are true gemstones of Minnesota!



Big Sand Lake near Park Rapids - 135 feet deep.

### Coldwater Fish Habitat

Deep, clear lakes also provide critical habitat for important coldwater species of fish such as tullibees, lake whitefish and lake trout. Coldwater fish in Minnesota escape the summer heat by living in the cold water in the deepest portions of our lakes. They also require high levels of dissolved oxygen down deep, which only exists in lakes with the highest water quality. When nutrients from runoff from poor land use practices in the watershed cause increased algae growth, deep water oxygen levels are depleted as those algae die, settle to the bottom, and then decompose. That makes coldwater fish habitat extremely sensitive to watershed disturbance. Only deep lakes with forested watersheds have the water quality necessary to sustain coldwater fish.

### Treasures of the Deep



Tullibee (cisco)

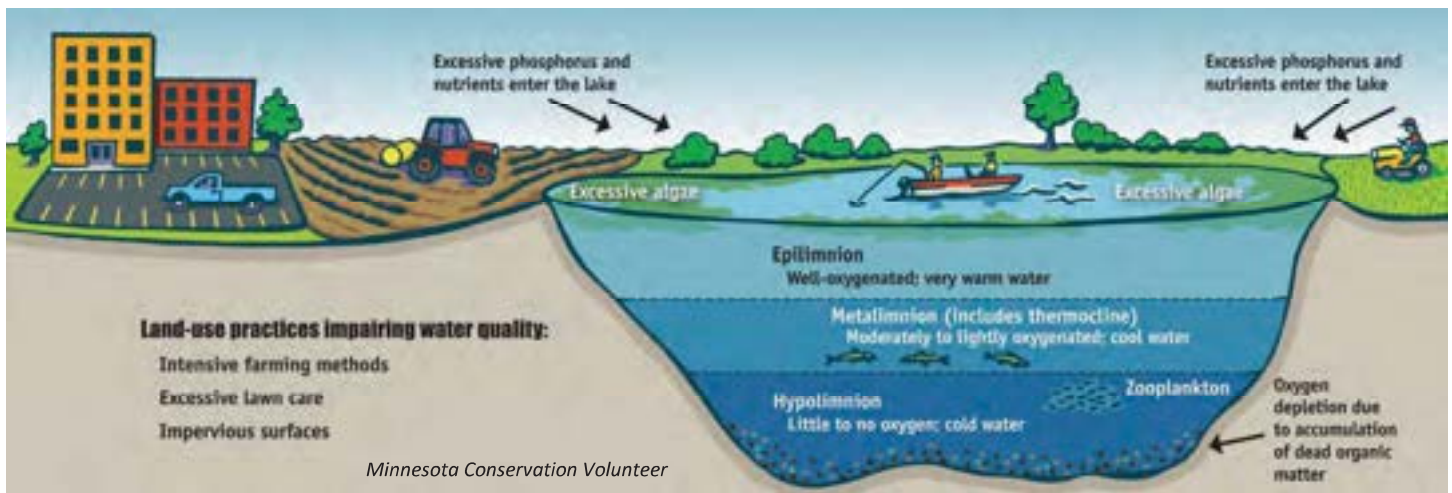


Lake Whitefish



Lake Trout

Artwork - Joseph Tomelleri



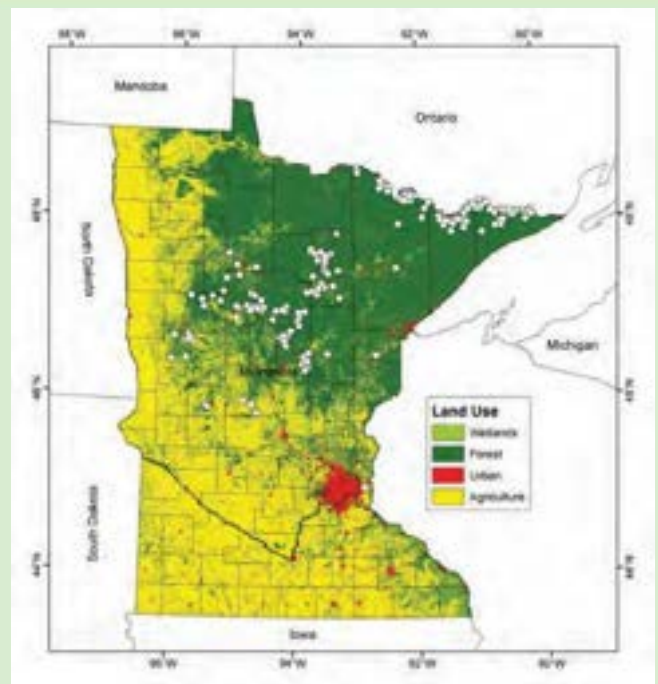
## Conservation

Deep lakes have become the focus of substantial conservation in recent years. North-central Minnesota is especially blessed with many deep, clear lakes. Extensive private forest lands throughout the region offer excellent opportunities for forest conservation in the watersheds of these lakes. Local SWCDs, Minnesota DNR, the Board of Soil and Water Resources, and several NGOs such as the Northern Waters Land Trust and Minnesota Land Trust work with private forest landowners to ensure that forests remain forested in the watersheds of these important lakes. Increasing development pressure and conversion of forest lands to agriculture make these conservation efforts critically important. Many funding entities such as the Lessard-Sams Outdoor Heritage Council and the Clean Water Council recognize the value of protecting existing water quality and agree with the concept that it is “cheaper to protect, than restore”. And the good news is that these watershed conservation efforts have already achieved success for several deep, clear lakes such as Kabekona Lake, LaSalle Lake, and Ten Mile Lake!



Ten Mile Lake near Hackensack—208 feet deep.

Photo credit— Ten Mile Lake Association.



## Cisco Refuge Lakes

As it turns out, deep lakes with good water quality, are actually quite resilient to climate change as well. As long as oxygen levels remain high below the thermocline, coldwater fish will thrive even after climate warming. Minnesota DNR Fisheries and the University of Minnesota's St. Anthony Falls Lab identified at 176 lakes in Minnesota that are deep and clear enough that they will provide good coldwater habitat for coldwater fish such as tullibees, even after significant climate warming. That's good news for the walleyes, northern pike, muskellunge, and lake trout that depend on these oily, high energy fish that allow them to grow to trophy proportions. Loons also bulk up on tullibees in the late summer and fall before they make the long migration to winter in the Gulf of Mexico!

### For more information contact:

Crystal Mathisrud, Hubbard County SWCD Manager  
 crystal.hcswcd@gmail.com (218) 732-0121







## WATER QUALITY AND SOIL HEALTH MANAGEMENT

# IN AGRICULTURE

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Landowner choices make the difference in soil, water and air.

### **Agriculture Partnerships**

Hubbard SWCD relies on cooperative partnerships with neighboring SWCDs to install agricultural practices on the ground.

The VFD will allow the motor to run at different speeds making the system much more energy efficient.

### **Shared Soil Health Coordinator**

In 2024, Hubbard and Becker SWCDs used grant funding to hire a shared soil Health Coordinator. This position will provide management services, education/information services, training services, and review plans and cost estimates to assist and enable existing technical staff to implement soil health practices and develop meaningful relationships with landowners and cooperators. The goal is to integrate soil health practices in projects throughout the district.

### **No-Till Drill**

Clearwater SWCD staff provide no-till drill assistance for Hubbard County landowners in the Mississippi River Headwaters Watershed. In 2023-2024, there were 220 total acres of no-till drill rental incentive provided to three landowners in northern Hubbard County. In this watershed, producers are paid \$40/acre for this practice.

### **Agricultural Best Management Practices**

There is cost-share available for a variety of AgBMP's. These include a variety of practices including no-till drilling, cattle watering, erosion control, filter strips, grassed water ways, tree planting, and many more. If you have questions about cost share, please reach out to the SWCD office at 218-732-0121, ext. 4.

### **Irrigation RCPP Project**

Hubbard relies on Wadena/East Otter Tail SWCD staff to provide technical assistance for agricultural infrastructure projects. In 2024, this partnership resulted in the installation of a Variable Rate Conversion with a new Variable Frequency Drive on a farm in Hubbard County. VRI reduces the overall water usage by applying varying amounts throughout the field based on different soil types, topography, and crop water needs.





## WATER QUALITY MANAGEMENT

# GRAZING WORKSHOP

### About

Each year the Hubbard SWCD offers an educational workshop for local cattle producers. The event is provided to the public for free and supported by donations from local vendors and educators.

Presenters travel to speak about best management practices for cattle on a variety of topics from cattle handling, to rotational grazing, cattle care and handling, and much more.

Producers are invited to ask questions, share information, and workshop ways to enhance operations.

For more information about cost share potential, for information about the Minnesota Agricultural Water Quality Certification Program, agricultural BMP's, or our new cover crop program, please contact us and request to join our newsletter mailing list.

### Next Event

If you would like to attend the next grazing workshop or to suggest topics you would like to hear about you can contact the -Hubbard SWCD at 218-732-0121 ext 101.

### 2024

In 2024 presenters included:  
Karl Sabrowsky - USDA FSA "FSA Updates/Overview of Financing Options", Garrett Christiansen - NRCS Northeast Area Forester "Silvopasture", Chester Powell - Clearwater SWCD "Cover Crop Establishment & No-till Hay Planting", Tarah Young - UMN Extension and Robert Welein - Potlach Environmental Manager "Soils & Wood Ash", Dr. Randy Lindemann - Acorn Lake Veterinary, Sabrina Claeys - Ducks Unlimited Grazing Biologist "Winter Feeding Strategies & Pasture Fertility", as well as SWCD and NRCS presenting about available programs through each respective organization.

The event was recorded will turned into a video. If you are interested in watching it scan the code below!







## WATER QUALITY MANAGEMENT

# IN WETLANDS

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There is magic in this moist world, in how the mind lets go, slips into sleepy water, circles and nuzzles the banks of palmetto and wild iris, how it seeps across dreams, smears them into the upright world, rots the wood of treasure chests, welcomes the body home --  
Barbara Hurd

### WCA Contacts

In 2024, 58 clients reached out with WCA related concerns with 164 contacts total. Of those 6 required boundary delineation, 3 No-Loss, 1 Replacement Plan. 3 Technical Evaluation Panel (TEP) meetings were held.

### Resources for Landowners

For more info about WCA scan the code below to go to the BWSR website.



### Outreach

Watershed and wetland virtual content was created for community education. Presentations to local school groups and community members can be arranged. We plan on having more wetland workshops, please reach out to Brandon or Jack to learn more!

### Virtual Lab

To check out the watershed and wetland information on our Virtual Lab scan the code below.



If you have a wetland question or concern, you can contact Brandon Spain-Brist at [brandon@hubbardswcd.org](mailto:brandon@hubbardswcd.org) or Jack Slipy at [jack@hubbardswcd.org](mailto:jack@hubbardswcd.org)



# WATER QUALITY MANAGEMENT IN RIPARIAN STREAM HABITAT

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No man ever steps in the same river twice, for it's not the same river and he's not the same man - Heraclitus



## **Stream Quality Monitoring**

In 2023 we monitored a variety of streams in the Leech Lake River Watershed. This includes the Kabekona, Necktie, Shingobee, Boy, and Leech Lake Rivers. Some rivers had multiple location like Kabekona which had a location upstream of the lake and one downstream before it enters Leech Lake.

Monitoring tributary streams is a vital step to help identify regional stressors that can impact water quality. Monitoring a lake can help show you it's current health but monitoring its tributaries can assist in identifying where nutrients may be coming from. Are the nutrients coming from upstream or directly from the land adjacent to the lake.

## **Connectivity Is Water Quality**

Many of our road crossings at rivers have been in place for decades and need to be modernized to meet habitat and water quality goals. Improving culvert size and alignment can reduce erosion of stream channel and stream bank. Improvements can also bring benefits to aquatic animals by improving their ability to move between systems.

## **Stream Crossing/Culvert Project**

In 2023 we implemented a realignment and resizing project along Hellkamp Creek. Hellkamp is a designated trout stream due to the stream being mainly feed by cool groundwater. The goal of this project was to improve the stream connectivity and health by properly sizing and aligning the culvert. This allows the stream to naturally flow through the culvert without making sharp turns or having elevated flows that can cause erosion and impede migration of aquatic organisms.

## **Buffer Outreach**

In 2024 we conducted a county wide GIS analysis of the buffers across our county to identify buffers that may not be meeting required filtering of runoff. We were able to identify a variety of locations which may not be in compliance. We are in the process of reaching out to landowners to help get them into compliance. This will help ensure our rivers are protected and that our county is in compliance with the State Buffer Law.



If you have concerns about streambank erosion please reach out to Jake Shaughnessy at 218-732-0121 ext 112 or [jake@hubbardswcd.org](mailto:jake@hubbardswcd.org)





Photo credits: Peter Jacobson and University of Minnesota Extension

# Straight River and the Pineland Sands Aquifer – Hubbard SWCD Perspective

## Background:

The Straight River is one of the finest trout streams in Minnesota. Spring-fed by the Pineland Sands Aquifer, the stream runs cold and clear, even in the hottest part of summer. The stream is especially known for growing large brown trout and is a destination for anglers from throughout Minnesota.

The Pineland Sands Aquifer is one of the largest aquifers in Minnesota, covering portions of Becker, Cass, Hubbard, and Wadena counties. The aquifer supports important irrigated agriculture that provides a critical economic foundation for local economies of the Park Rapids area. Unfortunately, the deep, glacial outwash sands that allow great quantities of precipitation to soak into the ground, also allow contaminants such as nitrate nitrogen to leak into the aquifer.

Hubbard SWCD is the primary local entity that implements water quality projects throughout the county, including groundwater protection. The District works with private forest and agricultural landowners to ensure that water quality is conserved for generations into the future.

## Current Issues and Concerns

- **Nitrate contamination of private drinking water wells.** Hubbard County SWCD provides water testing to residents with private wells. Unfortunately, concentrations of nitrate nitrogen in many of the private wells that draw groundwater from the Pineland Sands Aquifer exceed the 10mg/l threshold for human health concerns.
- **Increasing trend of nitrate concentrations in the Straight River.** Monitoring of stream water quality by the Minnesota PCA has shown elevated concentrations of nitrate nitrogen in the Straight River. These concentrations are orders of magnitude higher than other streams in the area not impacted by irrigated agriculture.
- **Dissolved oxygen impairment for the Straight River.** The Minnesota PCA has designated the Straight River as impaired for dissolved oxygen. High concentrations of nitrate nitrogen are likely stimulating excessive growth of filamentous algae in the stream which reduces dissolved oxygen concentrations as it decays.

- **Reductions of summer baseflows in the Straight River.** The Minnesota DNR notes that a number of high-capacity irrigation wells nearest to the Straight River are likely reducing the summer baseflow by more than 15%. The reduction in cold, groundwater baseflow may have detrimental effects on trout populations in the stream.
- **Continued conversions of forest land to irrigated agriculture.** Further losses of forest land to irrigated agriculture continue to increase demands on an intensively-used aquifer and likely result in additional contamination by nitrate nitrogen.

## Potential Solutions

- **Alternative cropping rotations.** Inserting lightly-fertilized crops such as alfalfa and other perennials into crop rotations with heavily-fertilized corn and potatoes significantly reduces loss of nitrogen fertilizer into the aquifer. Many producers are using some alfalfa in their crop rotations, but programs that incentivize this practice would further increase use.
- **Cover crops.** Cover crops have been shown to scavenge residual nitrogen in the soil after harvest and reduce loss into the aquifer. A critical issue is how to establish cover crops this far north after harvest of late-season crops such as corn.
- **Greater efficiencies in irrigation schedules.** Precision irrigation that only uses enough water for crop needs holds promise for reducing the overall demand for groundwater use. Larger producers are already using precision irrigation methods, but the approach can continue to be refined.
- **Opportunities in fields and wells closest to the Straight River.** The irrigation wells and fields closest to the Straight River would be an ideal location to implement practices that would reduce groundwater use and nitrogen fertilizers.
- **Provide forest stewardship planning for private woodland owners.** Landowners benefit from forest stewardship planning done by professional foresters. Opportunities for income from timber harvest and conservation benefits can be specifically highlighted for landowners.

## Recommendations

- Request that state agencies (MDA, MDH, MPCA, DNR) convene a local advisory team to explore solutions for nitrate contamination of groundwater in the Pineland Sands Aquifer. The team could be modeled after the advisory group assembled by the Minnesota DNR for addressing groundwater use in the Straight River Groundwater Management Area.
- Encourage Minnesota PCA to complete a TMDL (Total Maximum Daily Load) for the Dissolved Oxygen Impairment on the Straight River. A thorough TMDL recommendation would allow SWCDs to plan and implement practices to restore a critical fish habitat need for the stream.
- Encourage Minnesota PCA to complete a nitrate impairment criteria for streams. Identifying specific concentrations for impairment would be useful for SWCDs to plan and implement practices to reduce nitrate nitrogen levels to a specific goal.
- Urge the Minnesota DNR to complete its evaluation of reduced stream flow from high-capacity wells nearest to the Straight River.
- Develop and enhance state and federal programs to incentivize alternative practices that reduce groundwater and fertilizer needs in an irrigated agricultural setting.

*For more information contact:*

Crystal Mathisrud, Hubbard SWCD Manager  
crystal.hcswcd@gmail.com (218) 732-0121







## WATER QUALITY MANAGEMENT

# GROUNDWATER

Be like water; soft as it is, it breaks through rocks and impenetrable surfaces” - Matshona Dhliwayo

### Susceptible Groundwater

According to research from the Minnesota Department of Health much of the county is susceptible to nitrate leeching. This is primarily due to our very sandy soils that let water quickly infiltrate. This makes it extra important to monitor your well and prioritize groundwater protection.

### Safe Drinking Water

If you have concerns about the health of your drinking water feel free to stop by our office. We partner with RMB Labs, an accredited water testing lab, to provide lower cost well water tests. Stop by our office to pick up sample bottles and instructions on how to sample. Once you have your water collected you can drop it off at our office where a RMB courier will bring it to their lab (Mon-Thurs).

### Nitrate Clinics

Last year we were able to assist the community in testing nitrates in drinking water. During our monthly and seasonal nitrate clinics we tested over 250 drinking water samples for free. If you are on a private well, we encourage you to consistently test your water. We host a clinic at our office the first Friday of every month and offer pop-up clinics at various community events.

### Well Sealing

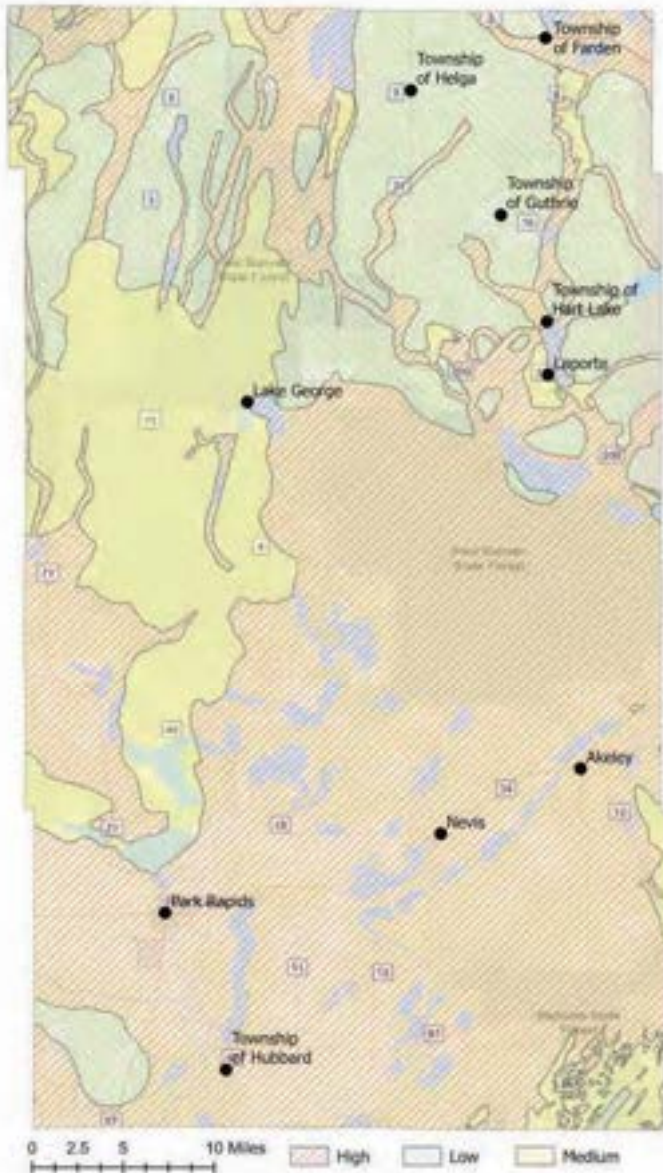
Unused wells can be an easy way for a variety of contaminants to enter the groundwater. This is a possible vector for bacteria like E. coli to contaminate drinking water. Sealing an unused well can be important to protect your existing well or neighboring wells. Hubbard SWCD has funds to assist in funding well sealing on private wells. If you have a well you are interested in having sealed reach out to Jake at [Jake@hubbardswcd.org](mailto:Jake@hubbardswcd.org).

### Groundwater Protection

To assist in groundwater protection, we offer cost share for well sealing. If you have any out of commission wells please reach out to us as old wells can act as easy access for nitrate, bacteria, and harmful chemicals to enter our groundwater.

If you are unsure if you have an unused well there are several recommendations on how to check and resources available. The Minnesota Department of Health has created a well index that has been logging well location data for several decades. Not every well that may exists will be on this page so the MDH has a webpage with several tips on how to locate unused wells. Check out the MDH's well sealing page for more information.

## Groundwater Vulnerability To Nitrate Leeching





## WATER QUALITY MANAGEMENT

# IN THE COMMUNITY



SWCD's are in the business of serving and supporting local communities in the realm of land and water resource enhancement and management.

### Shoreland Advisors

Through our NACD Grant we were able to host multiple events with the Hubbard County Coalition of Lake Association (HC COLA). These events were focused on improving knowledge on shoreline restoration and SWCD programs, along with assisting them with shoreline restoration. These events were also a great opportunity to inspire more water quality stewards across our various lakes and rivers.

### Citizen Science Apps

On our Virtual Lab we created a wide variety of citizen science apps where community members can report various data points like ice out, rainfall, trout stream temp, species richness, and forest cover type. To date, over 8,500 people have visited the page!

### Newsletter

The Hubbard SWCD distributed biannual newsletters to over 1,200 landowners with information on programming, services, and informative articles. Contact us to be added to our mailing list!

### Rain Monitoring

Rain monitors across the county have been recording rainfall and snowfall data for Hubbard County SWCD for many years. If this is an activity you are interested in assisting with, we are seeking monitors for the following counties: Badoura, Helga, Lake Alice, and Thorpe



For more information contact Rachel Rudquist at [rachel@hubbardswd.org](mailto:rachel@hubbardswd.org) or call our office at (218) 732- 0121 ext.4





## WATER QUALITY MANAGEMENT

# IN THE SCHOOLS

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If there is magic on this planet, it is contained in water. – **Loren Eiseley**

### Class Projects

The HCSWCD was able to join both indoor and outdoor classroom experiences in 2022 building mason bee houses, bud capping in school forests, planting trees at area schools. Staff at the Hubbard SWCD also presented on water properties and chemistry, and the importance of wetlands. Students learned about being a good steward to the land and learn about conserving and improving the natural resources available to them.

### Virtual Lab Activities

Virtual lab models were created for a variety of topics and from wildlife, to tree identification, and more. Use the scan code below to see some of the learning models that were created for student and community use.



### No Child Left Inside

Hubbard SWCD partnered on a grant along with Mississippi Headwaters Audubon Society, and Headwaters Science Center to promote outdoor recreation through nature education. This allowed us to conduct a variety of education events in class rooms which included building fishing rods and nature education. Over 50 fishing rods were built with students in an effort to building fishing families.

### Opportunities to Get Involved

If you would like to inquire about a classroom presentation, field experience, or online virtual lab model created we are happy to help create your next student experience.

For more information contact Jack Slipy at [jack@hubbardswcd.org](mailto:jack@hubbardswcd.org) or call our office at (218) 732- 0121 ext.4





## WATER QUALITY MANAGEMENT

# FRESHWATER FESTIVAL

Time outdoors in nature offers endless opportunities to learn and grow and supports the development of the whole child- cognitive, physical, social and emotional, creative.

-- Erin Saunders



### ABOUT THE FESTIVAL

The Freshwater Festival is an annual event held in May for sixth graders in Hubbard County. It is sponsored by funds from the Hubbard County Local Water management Plan and local donations with administrative support from the Hubbard County Soil and Water Conservation District. It follows basically the same format each year.

At this event, each class rotates through multiple stations where individual presenters share their expertise. Presenters are volunteers from organizations such as Headwaters Science Center, Minnesota Pollution Control Agency, Department of Natural Resources, Minnesota Department of Health, Natural Resources Conservation Service, Earth Is Our Home, AgCentric, and Community Experts.

This event is always growing and we wouldn't be able to put this on without help from many volunteers. We appreciate any support from our local partners and community members. If you would like to donate or volunteer any contribution would be greatly appreciated.

### 2024

In 2024 the event was held in person at the Camp Wilderness Boy Scout Camp. 280 students were in attendance with 11 presenters and over 40 volunteers.

Presentations spanned a variety of ecological topics related to water protection and ecological conservation. The Minnesota Department of Natural Resources (MNDNR) had multiple presentations on Forest and Soils, Planting Seedlings, Loons, and Aquatic Invasive Species. The Natural Resources Conservation Service (NRCS) provided Rainfall Demonstrations for Soil Health and AgCentric provided a Agricultural Technology Trailer. We have a community member come every year with his amazing knowledge and slide show on dragonflies.

At the end of the event every student watched a tree planting demonstration by the DNR and was given a donated seedling to bring home!

Scan below to see the Freshwater Festival event page!







# WATER QUALITY MANAGEMENT IN GARDENS

A garden returns 50X the investment you put into it. Not just food, but joy, peace and a real connection with creation. A spiritual retreat from a noisy world and hurried people. Grow a Garden!



## NACD Urban and Community Conservation Grant

Hubbard SWCD received the 2023 NACD (UAC) Grant intended to enhance local urban agriculture conservation technical assistance activities. The district used these funds to create a program designed to implement and manage scalable forest gardens throughout local communities to provide an additional source of food, improved wildlife habitat, and a better collective urban forest canopy.

## Food Forest Demonstration Sites

This project included five highly visible properties within the communities of Akeley, Nevis, Park Rapids, and Pine Point. There will be signs installed at each site to explain the project, identify plant species, and provide scannable codes offering more information.

## Food Forest Garden Landowner Kits

The creation of food forest garden landowner kits, which were first offered in the SWCD's 2024 spring tree sale and will be offered in years to come. The garden kits included a variety of native plants and seeds, along with educational technical assistance guides for planting and ongoing maintenance. In addition, the SWCD created free native seed packets used for outreach, which were distributed at multiple events throughout the County.

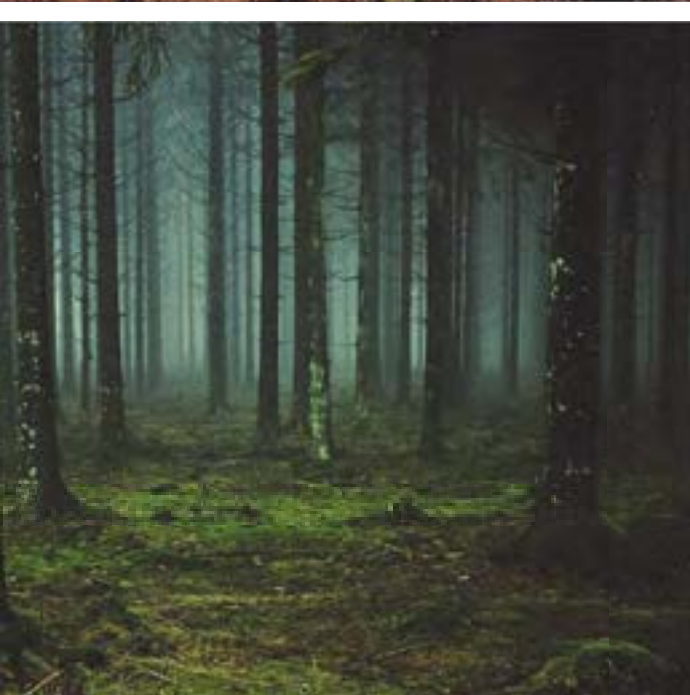
To check out our Virtual Lab, scan the code below!



For more information contact  
Jack Slipy at [jack@hubbardswcd.org](mailto:jack@hubbardswcd.org) or  
call our office at (218) 732- 0121 ext.4

## WATER QUALITY MANAGEMENT

# CROW WING RIVER CWMP



### What Is A 1w1p

1w1p stands for One Watershed One plan which is a relatively new framework for addressing water quality concerns holistically through developing Comprehensive Watershed Management Plan (CWMP). Historically water quality protection has been implemented on jurisdictional boundaries which allowed local governments to focus on their local priorities. This system worked well to address issue that started and ended in the same jurisdiction. However this did not always work well on water quality issues that were a result of issues that crossed borders. This had made it difficult for some areas which receive water to address water quality concerns the did not originate in their jurisdiction.

### Crow Wing River CWMP

The Crow Wing River CWMP had started its planning phase in early 2023 and concluded the planning phase in late 2024. The first phase of implementation of the plan began in 2025. The implementation will be focused on meeting water quality goals stated in the plan.

The Crow Wing River CWMP covers a large range of topics from ground water protection to urban stormwater.

### Crow Wing Priority Issues

- **Changes in Land use**
  - Impacts to surface water, ground water quality, and fragmentation of habitat
- **Lakeshore/Riparian Alteration**
  - Impacts to water quality and shoreland habitat.
- **Nutrient and Bacteria Runoff**
  - Runoff into lakes and rivers can impact aquatic recreation and human health.
- **Plant and Forest Health**
  - Forests are vulnerable to climate variability, pests, and terrestrial invasive species which can impact habitat and water quality.
- **Soil Health**
  - Soil health is important to maintain agricultural productivity, water quality and climate resilience.
- **Drinking Water Quality**
  - Highly vulnerable to contamination from land practices.
- **Ground Water Quantity**
  - Can impact sustainability, stream temperature, and surface/groundwater connections.
- **Sufficient Protection**
  - Helps maintain outstanding resources and protects habitat.
- **Alteration to Natural Drainage**
  - Altered flow can increase flow of water, streambank erosion, and impact habitat.
- **Aquatic Invasive Species**
  - Impact lake healthy, water quality, and recreation.





# WATER QUALITY MANAGEMENT MISSISSIPPI RIVER HEADWATERS CWMP



## About One Watershed One Plan

The Mississippi 1W1P was developed by the Minnesota Board of Soil and Water Resources alongside 10 local government units including Beltrami, Cass, Clearwater, Hubbard and Itasca SWCDs. The goal is to improve water resources at a watershed scale by working with the community to implement ecological and engineered practices, conservation, and education.

## The Mississippi River Headwaters Watershed

The Mississippi River Headwaters Watershed includes 685 river miles and 180,375 acres of lake. The watershed is also home to the headwaters of the Mississippi River. The Mississippi travels 2,552 miles through 10 states before it reaches its destination at the Gulf of Mexico.

## Watershed Priorities

In the Hubbard County side of the watershed there is a major focus on shoreline restoration along Lake Plantagenet. Along with shoreline priorities forest protection is a high priority across the entire region.

## Assistance Program Background

There is funding in the Mississippi headwaters for projects to address water quality concerns.

For our shoreland owners that means assistance with lakeshore improvements to help with erosion control. If you are not having erosion issue but wish to help protect your lake we can assist you in installing a variety of practices to reduce nutrients entering your lake.

Forest stewardship plans can be created to assist forest landowners with managing their forests and enrolling in incentive programs.

There is also funding available to assist agricultural producers with best management practices to protect surface water, soil health, and groundwater.

## Major Watersheds in Hubbard County





## WATER QUALITY MANAGEMENT

# LEECH LAKE RIVER 1W1P

### About the LLRW 1W1P

The Leech Lake River (LLR) 1W1P was developed by the Minnesota Board of Soil and Water Resources with help from Cass, and Hubbard SWCDs and counties, along with other partner organizations like the DNR, MPCA, and various citizen stakeholders.

The goal is to improve water resources at a watershed scale by working with the community to implement ecological and engineered practices, conservation, and education.

### LLR Priorities

The LLR Watershed is primarily a Lakes and Forest focused watershed with a very low percent of urbanization and development. This makes the focus of the watershed work on protecting the existing high quality lakes and forests ideal for long term water quality and habitat health.

Protection comes in a variety of ways from forest stewardship plan, easements, or shoreline buffers. All of these methods can be highly beneficial in halting degradation or improving water quality.

### Focuses For Hubbard SWCD

Hubbard SWCD has some very high quality resources in the LLR Watershed like various cold-water lakes like Kabekona and Steamboat and even several trout streams like Kabekona Creek, Upper Necktie, and Bungashing Creek.

Most of these resources are in good health currently and the focus is to halt degradation and fix specific issues. This is being done in the LLR Watershed through shoreline restoration/enhancement along with landscape stewardship activities like Private Forest Management and Easements.







# LAKE BELLE TAINE

## Collaborative Action Plan & Partnership

Landowners - County - SWCD - Community

### CONTEXT

Lake Belle Taine is a high quality fishing and recreational lake that has natural resource, economic and cultural value.

- Water levels have been rising steadily for decades.
- Landowners are concerned about water level issues, including erosion, loss of buildings and emersion of septic systems over time.
- Water quantity management can be used to manage risks to water quality over time, especially as related to septic systems.
- Water level management options pursued in the past included pumping water out of the lake to a holding pond or establishing an outlet on the south side of the lake where one likely existed in the past.
- Current One Watershed, One Plan implementation focus is on water quality per direction provided by the Board of Soil and Water Resources
- Lake Belle Taine is listed as a local priority in the current Crow Wing River One Watershed, One Plan draft and, while that may not result in direct funding, it does give local partners leverage to apply for competitive water management grants.

### RECENT EFFORTS

- Lake Association members and County Commissioners have participated in Crow Wing One Watershed, One Plan process, advocating for Lake Belle Taine as a priority. RESULT: Lake Belle Taine is named a local priority in the draft plan
- Lake Association members gathered information about Lake Improvement District (LID) options.
- HCSWCD and Hubbard County have gathered information about competitive grants available.
- Engineering consultants have been engaged to evaluate the feasibility of current options.
- Review previous studies

### NEXT STEPS

- Follow up with consultants to identify options - weigh the relative impacts
- Gather input from community members regarding options available
- Work together to write proposals for funding via competitive grants.

# Internships



## Ray Anderson – Water Quality Intern

- Senior at Bemidji State University, majoring in aquatic biology with a emphasis in fisheries graduating in the spring of 2025
- Enjoys working and connecting with the community to maintain the quality of watersheds for people to enjoy
- Future plans for Ray are to continue working in the field of water conservation

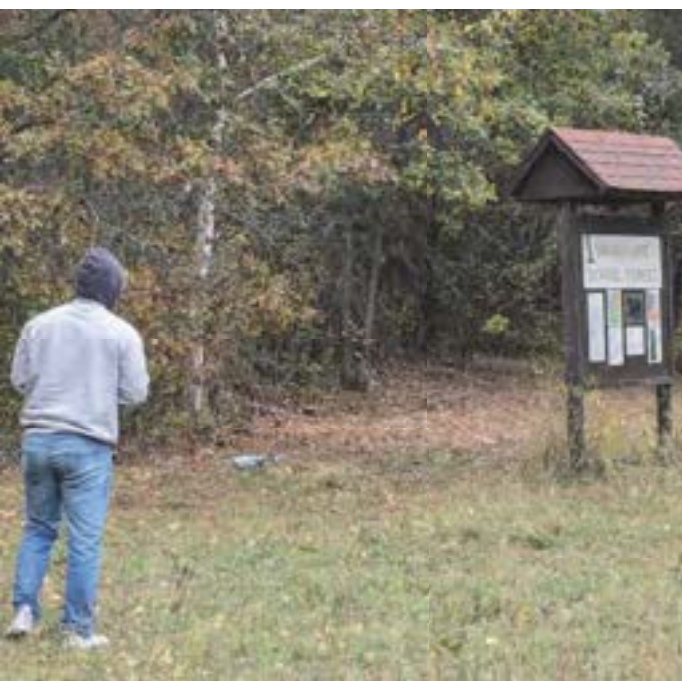
## Internship Contributions

- Assisted in lake and River sampling paid for by the MPCA SWAG grant in Hubbard County
- Sampled 6 lakes 3 rivers in the Mississippi River watershed
- Collected data including stream/lake temp, dissolved oxygen levels, conductivity, PH, and RS
- Data entry for excel, word, and GIS from site visits, stream/lake sampling, chain of custody documents, sample bottles, and nitrate clinics
- Participated in various site visits such as WCA, Shoreline restoration, Landowner, culvert, erosion control, fish passage, and streamline plans
- Attended events like Freshwater Festival, Nitrate Clinics, Becker County Bus Tour, Hubbard County Fair Nitrate Clinic, and Lake Association events
- Attend Meetings such as township stakeholder meetings, predesign plan meetings for developing projects, weekly team meetings, SFIA outreach meetings
- Office work consisted of EPA virtual lab development, designing handouts and interest forms, creating/updating documents for events, and GIS work for map creation and outreach planning



"Water links us to our neighbor in a way more profound and complex than any other." – John Thorson.





# GROWING AND THRIVING INTERNS

The trees encountered on a country stroll reveal a lot about that country's soul... A culture is no better than its woods." - W.H. Auden

## Jack Slipy - District Water Quality Intern

- A Senior at Bemidji State University, majoring in Environmental Studies with an emphasis in Ecosystems, a certificate in Geographic Information Systems (GIS), graduating in the Fall of 2024
- Passionate about conserving and protecting the natural resources within Hubbard County and the rest of the state of Minnesota.
- His future goals are to start working for the Hubbard County Soil and Water Conservation District after graduating from Bemidji State University.

## Contributions During Internship

### Working in the field

- Assisted with lake and river sampling under the MPCA SWAG grant
- Worked with Bemidji State University creating content and hosting community events for the EPA Environmental Education Grant
- Assisted Planting of food forests at Depot Park and Salvage Depot
- Conducted RIM easement checks by utilizing a drone to get arial imagery
- Drone photography of various projects including Brush lake and Salvage Depot
- AIS Sampling
- Nitrate Clinics
- Observation Wells
- Shoreline site visits
- WCA site visits
- Shoreline restoration projects
- Management of community gardens

### Outreach

- Assisted planning of community event to spread word of the EPA Environmental Education grant for seed and cone collection
- Creation of various flyers and handouts for events

### Meetings Attended:

- Akeley tree planting planning meeting
- Meeting with BSU professor planning the collaboration with his environmental communications class
- Menahga School meeting for the Environmental Education grant
- Weekly team meetings
- Board meetings

### Office Work

- Conducting buffer zone checks by analyzing satellite imagery
- Entering SWAG data
- Creating GIS maps
- Scanning WCA files
- Collection of septic location data
- Entering rainfall data
- Assisting with in office nitrate testing on the first Friday of every month
- Emailing and explaining well water nitrate results to landowners

### Events Attended

- Freshwater Festival
- Irrigation Training Workshop
- Lake La Salle Landowner Outreach Event
- Legislative Bus Tour
- Hubbard County Fair





## GROWING AND THRIVING INTERNS

The trees encountered on a country stroll reveal a lot about that country's soul... A culture is no better than its woods." - W.H. Auden

### Rose Moore - Forest Water District Outreach Intern

- A Senior at Bemidji State University, majoring in Environmental Studies with an emphasis in Ecosystems, minor in Water Science and a certificate in Geographic Information Systems (GIS), graduating in the Spring of 2024
- Passionate about connecting with people and understanding their unique story and their connection to the environment around them.
- Her future goals are either to attend graduate school to further her education in the environmental field or start working for a Soil and Water Conservation District after graduating from Bemidji State University.

### Contributions During Internship

#### Working in the field

- Leading Nitrate Clinics
- Presenting about Pollinator gardens at the CPL School forest
- SWAG Sampling
- Observation Wells
- Shoreline site visits
- WCA site visits
- Management of community gardens

#### Outreach

- Management of all HCSWCD social media pages by creating, posting and organizing social media outreach
- Emailing and explaining well water nitrate results to landowners
- Hand writing over 400 addresses and letters to landowners for invitation for forest stewardship plans
- Creating flyers for all events and meetings hosted, such as the Area 8 Fall Tour, nitrate clinics, Crow Wing 1W1P Public Kick-Off Event, community garden recipes and many more

#### Meetings Attended:

- Representing HCSWCD at North Central Conservation Roundtable.
- Mississippi Headwaters Board Meeting
- Urban Forest Garden Meetings
- WCA Violation meetings
- Crow Wing Watershed Landscape Stewardship Planning Meetings
- EPA 319 Necktie Steamboat Small Watershed Project
- Lake Association Meetings
- Weekly team meetings

#### Office Work

- Working on easements
- Tracking previously filed Forest Stewardship Plans
- Organizing office space for efficient use
- Creating base presentations for supervisors to use in meetings
- Taking notes for supervisors in different meetings

#### Events Attended

- Freshwater Festival
- Lake La Salle Landowner Outreach Event
- Legislative Bus Tour





## GROWING AND THRIVING INTERNS

"Water and air, the two essential fluids on which all life depends, have become global garbage cans." - Jacques Cousteau

### Chloe Smith – Water Quality District Intern

- Student at Bemidji State University Majoring in **Environmental Studies** with an Emphasis in Environmental Health and Toxicology and Minor in Sustainability and Geographic Information Systems (GIS).
- After graduation in **Spring 2024**, she hopes to take a **gap year** and work for the US EPA Great Lakes Toxicology and Ecology Division Laboratory in a student trainee position studying the effects of environmental contaminants to aquatic organisms.
- After her gap year, she plans to attend the **University of Duluth** to get her **M.S. in Water Resources Science** with the Limnology and Oceanography track.
- Once her Master's degree is acquired, she hopes to work in the government job sector at either the **State or federal level** in a research position for the Great Lakes.

### Contributions During Internship

#### Lake and River Sampling

- Assisted in lake and river sampling paid for by the MPCA SWAG Grant in Hubbard and Cass County.
- Sampled 12 lakes and 8 rivers in the Leech Lake River Watershed
- Collected stream monitoring data such as stream temp, dissolved oxygen levels, conductivity, pH, secchi tube depth, PA, and RS
- Excel and Word data entry, formatting river photos, bottle labeling, and filling out the Chain of Custody on sampling day

#### Site Visits Attended

- WCA site visits
- Shoreline site visits
- Landowner site visits
- Culvert site visits
- Erosion Control site visits

#### Meetings Attended

- CWRW Technical Advisor Committee meetings
- Crow Wing River LSP meetings
- HC Local Water Management plan meetings
- Lake Association meetings
- Weekly Team Meetings

#### Events Attended

- Freshwater Festival
- Nitrate Clinics
- Shell River Picnic
- Bus tour for CWRW 1W1P

#### Other Field Work

- Observational Wells
- Calculating Kayaking Distance
- Veliger Sampling

#### Academic/Office Work

- Mussel Research for Shell River Alliance
- Shell River 1 pager
- Revamping shoreline how-tos
- Rain Gauge and Nitrate data entry
- Fixing grammar for the SWCD website and scanning documents



## WORKING TOGETHER FOR LOCAL AGRICULTURE AND CONSERVATION: EXTENSION AND HUBBARD COUNTY SWCD

When it comes to supporting our community, teamwork makes all the difference. That's why the partnership between the Hubbard County Soil and Water Conservation District (SWCD) and the University of Minnesota Extension has been such a success. Together, we've created programs that help farmers, gardeners, and landowners while protecting the natural resources we all depend on.

### A Shared Mission

What makes this partnership so effective is that we share the same goals: supporting sustainable farming, caring for the environment, and helping our community thrive. By combining Extension's knack for education with SWCD's expertise in conservation, we've been able to tackle local challenges in a way that really works.

### Programs We're Proud Of

Over the years, we've teamed up on some fantastic programs that have become favorites in the community:

- **Annual Grazing Workshop:** This workshop is all about helping farmers get the most out of their pastures while keeping the land healthy. We bring together speakers with practical knowledge and expert tips on topics like rotational grazing, soil health, and pasture management. SWCD's conservation know-how and Extension's educational outreach make it a win-win for participants. When farmers take care of the soil, we all benefit. In fact, we all live in a watershed.
- **Annual Tree Sale:** Every year, the Hubbard County SWCD's tree sale brings folks together to support landowners and their efforts to improve their properties by planting more trees, shrubs, and native plants. Extension helps out by offering advice on choosing the right trees, planting them correctly, and keeping them healthy for years to come. It's a great way for the community to get involved in conservation while adding beauty to their own spaces. In 2022, we co-hosted the Tree Sale Seminar to demonstrate how to plant large amounts of trees, after-planting care, and wildlife herbivory protection strategies.
- **Master Gardener Projects:** Our collaboration shines in gardening projects, too. Extension's Master Gardener program works with SWCD in areas such as community gardens and provides education on planting and maintaining the plant kits that are offered in the SWCD tree sale.
- **Pollinator Programs:** Extension has coordinated pollinator educational offerings in the last four winters to inspire people to plant pollinator-friendly plants. The SWCD has always promoted Extension's annual pollinator series through their networks and offers pollinator-friendly plants in their tree sale. This makes it easier than ever to source the plants, getting more pollinator-friendly native plants out in our community. These plantings don't just make the area look great – they help provide habitat for pollinators. More than 80 percent of the world's flowering plants need a pollinator to reproduce; and we need pollinators too, since most of our food comes from flowering plants. One out of every three bites of our food is created with the help of pollinators.



### Making a Difference

The results of this partnership are easy to see. Together, we've:

- Offered valuable learning opportunities for farmers, gardeners, and residents.
- Connected conservation practices with real-world community needs.
- Helped the community adopt sustainable practices that benefit both local food systems and the environment.

### What's Next?

We're not stopping here! Extension and the Hubbard County SWCD are always looking for new ways to help our community and protect the environment. By staying flexible and responsive to local needs, we're excited to see what we can accomplish next. When organizations work together, amazing things happen. This partnership proves that by pooling our resources and expertise, we can create a brighter, more sustainable future for everyone.

### About the Extension Educator

Hi! I'm Tarah Young, Hubbard County Extension Educator in Agriculture, Horticulture, and Natural Resources. I started full-time in this position in August, after completing my Master's Degree at the University of Minnesota in Applied Plant Science. Have a question or an idea for a program you'd like to see? Let me know! You can call me at 218-732-3391 or email me at tarahy@umn.edu. I look forward to connecting with you!





## HOW PRIVATE LANDS AND THE MINNESOTA STATE FOREST NURSERY ARE GROWING THE FUTURE



The Minnesota Department of Natural Resources (DNR) and the Soil and Water Conservation Districts (SWCDs) work to improve clean water, carbon sequestration, wildlife habitat, and a multitude of other benefits on Minnesota's public and private lands. One of the best ways to achieve these benefits is by planting native trees and shrubs. With 75% of Minnesota privately owned, landowners contribute significantly to the environment. The DNR Cooperative Forest Management (CFM) foresters, local SWCD foresters, and private consulting foresters across the state focus on reforestation and managing private lands and aim to plant more trees, when appropriate, to protect the land from erosion and development. There is one big question though: where do all these trees come from?

In large part, these trees come from the State Nursery, located in North Central Minnesota, near the town of Akeley. The State Nursery was founded in 1929 and at its height in 1961, it was growing over 41 million seedlings. In 2009, the State Nursery had grown its billionth seedling! Today the State Nursery grows around 5 million seedlings a year.



While 5 million trees may seem like a lot, DNR Forestry would like to double production by 2030 meaning that in the next five years, the State Nursery will be producing 10 million seedlings per year. This increase in production is expected to double tree plantings on private lands.

The Minnesota Legislature has provided unprecedented funding to the State Nursery to aid in the increase of seedling production and distribution. Part of this funding has been used to build a large seedling cooler, capable of storing seedlings for months until they can be planted. Storing seedlings in this cooler will expand access to Southern Minnesota, an area that typically struggled to utilize seedlings from DNR. In Southern Minnesota the ground typically thaws earlier than at the State Nursery, delaying delivery. Now with the seedling cooler, the State Nursery can lift trees in the fall, store them in the cooler over winter, and deliver healthy seedlings to Southern Minnesota when planting conditions are right for them.

DNR Forestry has also hired extra staff to help grow the nursery in a way that aligns with public and private partner's needs. The Nursery Liaison position was created, in part, to improve communication between public agencies, such as the SWCDs, and the State Nursery. This position is working with SWCDs to create seedling ordering plans, gathering input on tree species preference, and working to streamline seedling deliveries for private landowners and public entities.

DNR Forestry has also hired a Seed Procurement Specialist to increase tree seed and cone gathering across the state. Seed and cone collection was a common activity for many Minnesotans in the past but has fallen in popularity over the past decade. With fewer collectors and more unpredictable weather, there has been a statewide seed shortage. The seeds collected are either directly sown on public lands or grown at the State Nursery. The new Seed Procurement Specialist hopes to reenergize this program and boost the State Nursery's dwindling stockpile of tree seeds.

Investing in the State Nursery is just one of several tools to help reforest Minnesota. Protecting Minnesota's "green gold" (its trees) requires a variety of different tools and strategies. By supporting private landowners with resilient seedlings, cost-share programs to offset planting costs and technical assistance, the state and its partners are helping individuals play a key role in making Minnesota known not only as the Land of 10,000 Lakes but also as the Land of 10 Billion Trees.

**If you would like to learn more about how the Cooperative Forest Management program works or how the State Nursery can help you with your tree sale programs please contact me at [Devon.Wenthe@state.mn.us](mailto:Devon.Wenthe@state.mn.us)**

**For anything Seed and Cone collection related please contact Nicole Schafer at [Nicole.Schafer@state.mn.us](mailto:Nicole.Schafer@state.mn.us)**



# DRAFT HCSWCD 2026 BUDGET

8/14/2025

ESTIMATED INCOME		ESTIMATED EXPENSES	
<b>FEDERAL</b>		<b>PERSONNEL</b>	
LSR Priority Lakes \$285,000 total	\$ 80,000	Supervisor Comp.	\$ 25,000
EPEEnv Ed Cone/Seed Collection \$89,000	\$ 2,000	Employee Salaries	\$ 549,993
EPA 319 Necktie Steamboat Block 1 (\$291,835)	\$ 145,918	Employee - FICA	\$ 43,422
MGLP Culvert Project		PERA	\$ 40,312
<b>TOTAL</b>		Medical Insurance	\$ 67,200
	<b>\$ 257,918</b>	<b>Total</b>	<b>\$ 725,927</b>
<b>STATE</b>		Est impact of new State Leave Tax	\$ 6,388
Conservation Partners Legacy 2026 Culvert Proj	\$ 80,000	<b>OTHER SERVICES &amp; CHARGES</b>	
LSOHC Pine/Leech Ph 3, Rachel will find out	\$ 30,000	Rent	\$ 12,000
Buffer Law 2026	\$ 8,000	Audit	\$ 6,700
Buffer Law 2025 (&5280 inn QBO today )	\$ 2,500	Professional Fees	\$ 43,700
Stream Restoration for Necktie via DNR-LSOHC applied and ranked 4 in state - funds avail 2026 but use begin in		District Insurance	\$ 14,000
Conservation Delivery 2026	\$ 18,157	Dues	\$ 15,335
Conservation Contracts 2026	\$ 10,550	Employee Expenses	\$ 6,500
LCCMR Priority Lakes (2 yr \$1,860,000, \$860,000 sp	\$ 1,000,000	Newsletter	\$ 8,000
SWCD AID - 2026 estimate	\$ 124,000	Office Supplies	\$ 3,000
RIM DRINKING WATER \$ amount unknown as of today		Postage	\$ 2,200
RIM Easement Compliance estimate	\$ 1,500	Software and Subscriptions	\$ 9,579
NEW RIM Easements 7 applications closing	\$ 24,500	Shipping/Freight	\$ 1,000
DNR Implementation PFM	\$ 40,000	Staff Training	\$ 12,500
Crow Wing 1w1p Implementation (estimated)	\$ 147,500	Supervisor Expenses	\$ 5,000
MHB Outreach	\$ 6,000	Telephone, Internet, Cell Serv	\$ 5,680
MRH 1W1P Implementation (estimated)	\$ 59,000	Vehicle Expenses	\$ 10,000
LLR 1W1P Implementation (estimated)	\$ 119,700	<b>Total</b>	<b>\$ 155,194</b>
TSA8 Engineer Serv.	\$ 30,000	<b>LOCAL/DISTRICT</b>	
DNR Obwells	\$ 7,560	Capital Improvement	\$ 42,111
Soil Health Delivery FY25	\$ 20,000	Trees	\$ 17,000
Soil Health Delivery FY26	\$ 20,000	Platbook	\$ -
<b>Total</b>	<b>\$ 1,748,967</b>	Tubes, Flags, etc	\$ 100
<b>COUNTY</b>		Boat/Motor/Rental Expenses	\$ 500
County Allocation	\$ 36,000	Water Quality Monitoring Expenses	\$ 1,200
LWP Levy - Coordinator - 2026	\$ 8,566	Reserves	\$ 300,000
LWP - Projects - 2026	\$ 18,082	<b>Total</b>	<b>\$ 360,911</b>
WCA - 2025	\$ 20,000	<b>PROJECT EXPENSES</b>	
WCA - 2026	\$ 34,270	FEDERAL	\$ 112,500
<b>Total</b>	<b>\$ 116,918</b>	STATE	\$ 855,000
<b>LOCAL/DISTRICT</b>		COUNTY / LOCAL	\$ 18,083
Interest	\$ 400	<b>Total</b>	<b>\$ 985,583</b>
Donations to Projects	\$ 5,000		
<b>Total</b>	<b>\$ 5,400</b>		
<b>CHARGES FOR SERVICES</b>			
Tree sales	\$ 40,000		
Planting Accessory Sales	\$ 200		
Plat Books (goal to sell 200 by end 2026)	\$ 7,000		
Design Fees	\$ 3,000		
Lawn Conversion, Buffer, Tree Planting Projects - n	\$ 50,000		
Water Quality Monitoring:	\$ 4,600		
<b>Total</b>	<b>\$ 104,800</b>		
<b>Total Estimated Income</b>	<b>\$ 2,234,003</b>	<b>Total Estimated Expense</b>	<b>\$ 2,234,003</b>



# HCSWCD 2025 BUDGET

ESTIMATED INCOME		ESTIMATED EXPENSES	
<b><u>FEDERAL</u></b>		<b><u>PERSONNEL</u></b>	
LSR Priority Lakes \$285,000 total	\$ 160,000	Supervisor Comp.	\$ 16,000
EPA Env Ed Cone/Seed Collection \$89,000	\$ 75,000	Employee Salaries (current plus new)	\$ 439,868
EPA 319 Necktie Steamboat Block 1 (\$291,835)	\$ 145,918	Employee - FICA	\$ 34,998
MGLP Culvert Project	\$ 36,000	PERA	\$ 32,315
	<u>\$ 416,918</u>	Medical Insurance	\$ 67,200
		<b>Total</b>	<u>\$ 590,380</u>
<b><u>STATE</u></b>		<b><u>OTHER SERVICES &amp; CHARGES</u></b>	
Conservation Partners Legacy	\$ 4,800	Rent	\$ 22,500
LSOHC Pine/Leech Ph 3	\$ 30,000	Audit	\$ 6,700
State Cost Share 2023 final	\$ 2,800	Professional Fees	\$ 42,100
Buffer Law 2025	\$ 10,000	District Insurance	\$ 11,800
Buffer Law 2024	\$ 10,000	Dues	\$ 15,335
Conservation Delivery 2025	\$ 18,157	Employee Expenses	\$ 6,500
Cons Contracts 2025	\$ 14,000	Newsletter	\$ 8,000
LCCMR Priority Lakes (2 yr \$1,860,000)	\$ 1,395,000	Office Supplies	\$ 3,000
SWCD AID - 2025 estimate	\$ 148,000	Postage	\$ 2,200
SWCD AID - 2024	\$ 162,069	Software and Subscriptions	\$ 9,579
RIM Easement Compliance estimate	\$ 1,300	Shipping/Freight	\$ 1,000
NEW RIM Easements 12 applications closing	\$ 30,000	Staff Training	\$ 10,000
DNR Implementation PFM (estimated)	\$ 50,000	Supervisor Expenses	\$ 9,000
Crow Wing 1w1p Implementation (estimated)	\$ 100,000	Telephone	\$ 4,800
CWR 1W1P Planning (ends 2025)	\$ 30,000	Vehicle Expenses	\$ 10,000
MRH 1W1P Implementation (estimated)	\$ 43,536	<b>Total</b>	<u>\$ 162,514</u>
LLR 1W1P Implementation (estimated)	\$ 103,000		
SWAG Mississippi (2024-2025)	\$ 24,000	<b><u>LOCAL/DISTRICT</u></b>	
DNR Obwells	\$ 6,800	Capital Improvement	\$ 30,000
Soil Health FY24	\$ 14,175	Trees	\$ 20,000
Soil Health FY25	\$ 14,175	Platbook	\$ -
TSA8 Engineer Serv.	\$ 31,000	Plantskydd, Tubes, Flags	\$ 150
MHB (new amount TBD)	\$ -	Boat/Motor/Rental Expenses	\$ 500
<b>Total</b>	<u>\$ 2,242,812</u>	Water Quality Monitoring Expenses	\$ 1,000
		Fund Balance	\$ 207,499
		<b>Total</b>	<u>\$ 259,149</u>
<b><u>COUNTY</u></b>		<b><u>PROJECT EXPENSES</u></b>	
County Allocation	\$ 36,000	FEDERAL	\$ 196,000
LWP Levy - Coordinator - 2025	\$ 8,566	STATE	\$ 1,579,355
LWP - Projects - 2025	\$ 13,245	COUNTY / LOCAL	\$ 22,149
WCA - 2025	\$ 25,103	<b>Total</b>	<u>\$ 1,797,504</u>
WCA - 2024 (received)	\$ 25,103		
<b>Total</b>	<u>\$ 108,017</u>		
<b><u>LOCAL/DISTRICT</u></b>		<b>Total Estimated Expense</b>	
Interest	\$ 400		\$ 2,809,547
Donations to Projects	\$ 5,000		
<b>Total</b>	<u>\$ 5,400</u>		
<b><u>CHARGES FOR SERVICES</u></b>			
Tree sales	\$ 25,000		
Plantskydd, Tubes, Flags	\$ 200		
Plat Books	\$ 1,500		
Forest Stewardship Plan Writing & Tree Planting	\$ 500		
Water Quality Monitoring:	\$ 4,600		
Chemistry	\$ 600		
Dissolved Oxygen	\$ 1,000		
Veliger	\$ 3,000		
<b>Total</b>	<u>\$ 36,400</u>		
<b>Total Estimated Income</b>	<u>\$ 2,809,547</u>		

2025 BUDGET Approved -----

# Hubbard County SWCD 2025- 26 Prioritized Workplan Checklist

The purpose of Hubbard County SWCD’s annual work plan is to define our priorities for the year ahead as well as to document how we intend to collaborate with community partners, knowing that we will be able to achieve more together if we communicate well about our abilities and intentions.

## Hubbard County SWCD Priorities

1. Protect and Manage Shoreland, Wetland, Forest, and Agricultural Resources to Promote Clean Drinking Water, Soil Health, and Wildlife Habitat
2. Community Education and Outreach
3. HCSWCD Team

### WORKING TOGETHER TO MULTIPLY COMMUNITY SUCCESS

#### SWCD STAFF & SUPERVISORS

- Knowledge of Programs
- Boots-On-the-Ground
- Master Networkers
- Project Design
- Grant Writing to Establish Programs to Respond to Community Need

#### LANDOWNERS & COMMUNITY GROUPS

- Project Ideas
- Creative Solutions
- Matching In-Kind Contributions
- Proximity to Community Need and Knowledge



#### PARTNERING ORGANIZATIONS

- Specialized Expertise
- Technical Skills
- Access to Long-Term Data and Current Research
- Science Based Problem-Solvers
- Complimentary Programs and Project Collaboration

#### COMMUNITY LEADERS – STATE & LOCAL OFFICIALS

- Political Considerations
- Economic Considerations
- Knowledge of Community Trends and Needs
- Financial Partners
- Project Ideas



# Hubbard County SWCD 2025-2026 Prioritized Workplan Checklist

<b>1</b>	<b>Protect and Manage Shoreland, Wetland, Forest and Agricultural Resources to Promote Clean Drinking Water, Soil Health and Wildlife Habitat</b>
<b>1 . 1</b>	<b>Promote Forest Stewardship</b>
	Collaborate with Private Foresters to get Forest Stewardship Plans written and registered.
	Identify and pursue Gem Parcels for Reinvest in Minnesota, Wild Rice, Wildlife Habitat Corridor, Wellhead Protection, and Critical Shoreland easement programs so that parcels may remain in recreational use and private landowner hands while entering protection status that ensures access and enjoyment of those resources for future generations.
	Coordinate with DNR Private Forest Management to provide forest stewardship and management support to landowners at small and large scales, increasing coordination to increase availability and cost-effectiveness of services.
<b>1 . 2</b>	<b>Protect and Enhance Shoreland and Stream Corridors</b>
	Provide Funding and Technical Support for Erosion Control and Buffer Cost-Share Projects.
	Identify high priority lake and stream shores where wind and water erosion issues are present or likely given local hazards, conditions and soil types.
	Identify pollution and nutrient loading issues and risks by evaluating existing water quality data.
	Communicate with stakeholders to implement stormwater projects and culvert inventories.
	Assist landowners in maintaining buffer law compliance by offering cost-shares for currently compliant but at-risk areas.
	Seek funding to continuously improve and enhance native vegetation in riparian zones.
<b>1 . 3</b>	<b>Maintain, Restore, and Enhance the Productive Capacity of Working Lands</b>
	Advocate for the Development of a Sustainable Grazing/Grasslands and Urban/Small-Scale Agriculture Programs in Hubbard County.
	Promote and Participate in the Irrigation Scheduler Program.
	Collaborate with NRCS to plan for cooperative work to deliver more services to more landowners and hold the 2023 Hubbard County Grazing Workshop
<b>1 . 4</b>	<b>Implement the Wetland Conservation Act (WCA) for Hubbard County</b>
	Provide wetland conservation information to the public via our website, pamphlets and individual contact.
	Receive and review WCA applications and violation reports.
	Follow up with landowners to avoid and reduce wetland impacts, to create replacement plans where needed, and to apply for exemptions as appropriate.
<b>1 . 5</b>	<b>Promote and Participate in Water Quality Data Collection</b>
	Participate in MPCA Water Quality Assessment initiatives to collect lake and stream data.
	Offer veliger sampling on a fee for service basis to lake associations, lake shore owners and community groups.
	Continue to offer free nitrate testing at community events and in HC SWCD office throughout the year.

# Hubbard County SWCD 2025-2026 Prioritized Workplan Checklist

	<p>Offer Hydrolab services on a fee for services basis to lake associations, lake shore owners and community groups. Data sets include:</p> <ul style="list-style-type: none"> <li>• Dissolved Oxygen</li> <li>• Temperature profiles</li> <li>• Clarity assessments</li> <li>• Salinity</li> </ul>
	<p>Offer detailed water quality testing in collaboration with RMB labs on a fee for service basis, including:</p> <ul style="list-style-type: none"> <li>• Lead testing</li> <li>• Nitrates</li> <li>• Bactria</li> <li>• Arsenic</li> <li>• Host of Secondary Contaminants</li> </ul>
<b>2</b>	<b>Community Education and Outreach</b>
<b>2 . 1</b>	<b>Raise Community Awareness of SWCD Goals, Activities and Programs</b>
	Participate in community events by offering school and private/public group presentations, nitrate testing at events, activities for kids and question and answer sessions.
	<p>Create thoughtful marketing materials that engage people on a deeper level and are kept within the home for reference or enjoyment.</p> <ul style="list-style-type: none"> <li>• Collaborate with COLA, Resorts, Schools, 4-H, Boy Scouts, Girl Scouts and other groups to get education and marketing tools into the hands of individuals.</li> <li>• Utilize social media including Facebook and Instagram to share our community stories.</li> <li>• Ensure SWCD stories are Community stories and that we share them in a way that resonates, inspires and gives credit to our valued partners and participants.</li> <li>• Collect stories and pictures to share daily when in the field.</li> </ul>
	Plan and Host Annual Freshwater Festival.
	Seek new opportunities for education and outreach as well as new funding for events, presentations and interactive activities for school and youth groups.
<b>2 . 2</b>	<b>Build Hubbard County Community Partnerships and Sustainable SWCD Operations and Infrastructure</b>
	Identify funding mechanisms in order to provide a stable base annual operating budget
	Identify and apply for grants via organizations who are seeking partners for wildlife, sustainable farming, conservation planning, etc.; Meet with local and state officials to identify new potential projects and sources of funding.
	Present annual budget and workplan to the County along with a request for funding to support community- based project development and outreach with the goal of building stronger ties and trust through service and project completion.
	Schedule time to have intentional conversations with Hubbard County and Township elected officials to learn more about local perspectives, needs and project wish lists.
	Identify where we have common goals and develop plans to work together financially and physically to get projects done on the ground.
	Keep a list of potential collaborations, create annual goals together, and seek funding for existing needs where there is no current funding.
	Ensure the person attending 1WP partnership meetings is knowledgeable about the goals and requirements of the 1W1P's and Hubbard County community needs and attitudes about participation.



# Hubbard County SWCD 2025-2026 Prioritized Workplan Checklist

<b>3</b>	<b>HCSWCD TEAM</b>
<b>3.1</b>	<b>Expand District Capacity and Skill-Sets to Provide Effective Service to the Community and Fulfill the District's Mission</b>
	Create and follow an annual training plan for each staff member to increase our internal expertise and skill- set. Consider the SWCD mission as well as individual interests, goals and natural abilities to ensure we build an effective, engaged, stable, and resilient team.
<b>3.2</b>	<b>Streamline District Operations to Achieve More with the Time and Funding Available</b>
	Invest in human resources and technology systems to simplify our processes and increase skill and productivity
	Hold weekly staff meetings to check in on project development, workloads and needs. Arrange for staff to consult individually or as a group with BWSR specialists promptly when training or guidance is needed.
	Improve website and social media outlets to provide an accessible forum for the public to learn about and follow SWCD projects and activities.
<b>3.3</b>	<b>Maintain a Professional, Prepared, Connected and Highly Skilled SWCD Team</b>
	Provide opportunities for team members to grow in the areas that interest them and expand HCSWCD capacity.
	Focus on enhancing our team orientated HCSWCD culture.
	Empower team members through a process of team and individual goal setting and tracking: acknowledge and celebrate successes.
	Discuss opportunities for growth as it pertains to individuals and the whole team quarterly at a minumum.
	Seek out mentorship opportunities at all levels and communicate clearly the value of working together and growing through challenging situations.

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**The Hubbard County Soil and Water Conservation District would like to thank each of the following  
for their support and assistance during the year - We appreciate all you do!**

Area School Districts	Mantrap Valley Conservation Club
Bagley Livestock Exchange	Middle Crow Wing Lake Association
Beltrami Electric Coop (Operation Round Up)	Minnesota Association of Soil and Water Conservation Districts (MASWCD)
Bemidji State University	Minnesota Board of Water and Soil Resources (BWSR)
Calvary Lutheran Church	Minnesota Dark House Association
Citizens National Bank	Minnesota Deer Hunters Association (MDHA)
City of Akeley	Minnesota Department of Agriculture (USDA)
City of Laporte	Minnesota Department of Health (MDH)
City of Nevis	Minnesota Department of Natural Resources (DNR)
City of Park Rapids	Minnesota Pollution Control Agency (MPCA)
Coca Cola Bemidji	Minnesota SWCD Forestry Association
Coburn's Grocery Store	Natural Resources Conservation Service (NRCS)
The Door Coffeehouse	National Association of Conservation Districts (NACD)
East Hubbard County Fire District (EHCFD)	The Nature Conservancy (TNC)
Farm Service Agency (FSA)	Neilson Spearhead Center
Garfield Lake Association	Northern Lights Council BSA, Camp Wilderness
Garfield Lake Ice Racers	Northview Bank
Hart Lake Township	Northwoods Bank
Headwaters Science Center	North Central Area 8 Joint Powers Board (JPB)
Hendrickson Township	Northwest Minnesota Foundation
Howg's Gas & Service	NWTF Tall Pine's Tom's Chapter
Hubbard County Coalition of Lake Associations (COLA)	Otto Hendrickson Post #212
AND member lake Associations	Office of State Climatology
Hubbard County Auditor	Park Rapids Enterprise
Hubbard County Assessor	Paul Bunyan Communications
Hubbard County Board of Commissioners	Radio Station KKFM
Hubbard County Engineer	Radio Station KPRM
Hubbard County Environmental Services	The Review Messenger
Hubbard County Extension Service	Rivard's Turf & Forage
Hubbard County Treasurer	RMB Laboratories
Hubbard County Recorder	Salvage Depot
Hugo's Family Market Place	Spider Lake Association
Itasca-Mantrap Coop (Operation Round Up)	Steamboat Lake Association
Itasca State Park Staff	TSA North Central Area 8
Kabekona Lake Foundation	Trout Unlimited Headwaters Chapter
Hubbard County Lake Associations	University of Minnesota
Lamb-Weston/RDO Frozen	USDA Forest Service
Laporte/Benedict Area Lions Club	U.S. Army Corps of Engineers
Laporte Grocery	U.S. Fish & Wildlife Service
Minnesota Association of Conservation District Employees	Youthworks
Midwest Glacial Lakes Partnership (MGLP)	

**All of our individual community volunteers and landowner partners,  
THANK YOU!**