Hubbard County Soil & Water Conservation District

SWCD Focus

Volume 44 Issue 1
Spring 2022

Legacy: Defining Management Oriented Protection and Creating Programs That Support Active, Intentional Management and Local Economy

By: Crystal Mathisrud

Have you ever heard the phrase "protect the land to protect the water," or how about "managed lands are protected lands?" I think sometimes we hear the phrase "protected lands" and we imagine lands that are set aside to not be used—that we somehow associate protected with wild and wild with untouched by humans.

I don't think that's accurate, do you? I know my great grandpa on my dad's side worked for the Forest Service after he moved here from Norway in 1901 and he was proud to be one of the men managing the great forests of Northern Minnesota; and, although his primary assignment was regarding fire, I know he saw managing forest for products and habitat as both protective of the land and important for local business.

Likewise, the two generations of families after him managed the ditched wetlands of Carp and Lake of the Woods for winter wheat, mustard, grazing land and firewood. They nurtured and cared for those acres as much as the acres nurtured and provided for them.

Humans are interesting creatures, we learn from experience, become invested when we take action, care for the things that inspire us and sustain us. We work hard to take care of the people, places and things we love and we usually find our deepest, biggest loves through hard labor.

It is our relationship with the land which defines its status as protected or not. Yes, we have management plans, conservation tools such as easements and parks, but land becomes protected by the hearts and hands of the men and women who manage it long-term, and that's why it is important that we have and create tools locally to support family ownership and ongoing legacy.

This year we have an exploratory project with Northern Waters Land Trust (NWLT), Bemidji State University (BSU) and HCSWCD to learn how local landowners might be able to participate in carbon sequestration programs alongside their current agriculture and forest land management plans. Please reach out to us if you are interested in providing input or interview that might guide the development of a future program. You can access the survey by using a smart phone to scan the code shown here or contact us at https://www.hubbardswcd.org/ for a direct link. We hope to use the survey data to better assist landowners in the area with their land management needs. Check it out!

Inside this issue:

Free Nitrate Clinic held the first Friday of every month at the SWCD office
located at 603 Central Ave N Park Rapids, MN.
Please call 218-732-0121 if you have any questions.

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Hubbard County SWCD Board
meets the 2nd Wednesday, monthly, at 8:30 a.m. at
603 Central Avenue North
Park Rapids, MN 56470

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- Don Rettinger, Vice-Chair
- Lynn Goodrich, Secretary
- Don Sells, Treasurer
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Nutrient Management

By: Dan Pazdernik

Sharply rising input prices are causing concern among many producers for the 2022 season. Increasing commercial fertilizer prices may cause many producers to cut back on application rates. If cutting back, the question becomes how much and where? Is there room to cut back without hurting the farm's profitability?

To help producers make sound decisions, the University of Minnesota (UMN) has established recommended nutrient application rates for various crops for nitrogen (N), phosphate (P_2O_5), and potash (K_2O). Phosphate and potash recommendations are based on soil test levels.

Due to the nature of nitrogen and how it behaves in soils, nitrogen is treated differently than the other nutrients. Separate soil nitrate tests are possible but not recommended for use in a large part of Minnesota which includes Hubbard County.

Therefore, the UMN has developed tables using the N price/Crop value ratio, prior crop grown, soil textures, and maximum return to N value (MRTN).

These tables then give an acceptable range of N/acre to be applied. NRCS recommends following UMN nutrient guidelines and getting new soil tests every 3-4 years. Keeping up on soil testing can eliminate over application of nutrients but it can also identify where applications are lacking. A basic soil test will provide soil test levels for pH, total organic matter, phosphate, potash, and sometimes sulfur.

Another aspect of nutrient management is liming needs. The UMN also has liming recommendations based on soil test pH levels. Too high or too low of soil pH may cause certain nutrients from being utilized by the crop. Liming to a pH of 6.0 to 6.5 or higher is recommended depending on the type of crop being planted.

To access the UMN guidelines, visit:

https://extension.umn.edu/nutrient-management/crop-specific-needs to find the tools and information that will help your operation.

Soil Sampling

Information Compiled By: Alicia Laturnus

Proper soil sampling and testing is a reliable way to predict crop fertilizer and lime needs. Agronomic fertilizer, manure and lime recommendations based on soil samples that are representative of the planning area can result in increased yields, reduced fertilizer costs and minimize impacts on the environment.

These analyses will include pH, organic matter, phosphorus (Bray P1 or Olsen) and potassium. More tests can be ordered if desired.

On level uniform fields, one or more composite samples should be taken per 20 acres. On smaller fields, fields with contour strips, or hilly/rolling ground, one or more composite samples should be taken per 5 acres.

Most samples should be collected after harvest, either in the Fall or Spring. Do not sample shortly after lime, fertilizer or manure applications.

Soil fertility varies with depth and proximity to crops and is impacted greatly by tillage practices.

In a conventional tillage system, samples should be collected from the surface layer to a depth of 6 inches for all nutrients except nitrogen. Collect 15 to 30 cores at random or in a grid pattern making sure that the sampling area is adequately represented. Be sure to scrape any crop residue and manure off of the soil surface prior to collecting the core. Mix the cores together in a bucket and fill a bag with about a pound of sample. You find the contact information of a certified lab at the web link below. That is where you'll send your soil sample for analysis.

2022 Certified Soil Testing Laboratories:

http://www2.mda.state.mn.us/webapp/lis/soillabs.jsp

Helping People Help the Land

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One Watershed One Plan For A Healthier Heartlands Lake Area

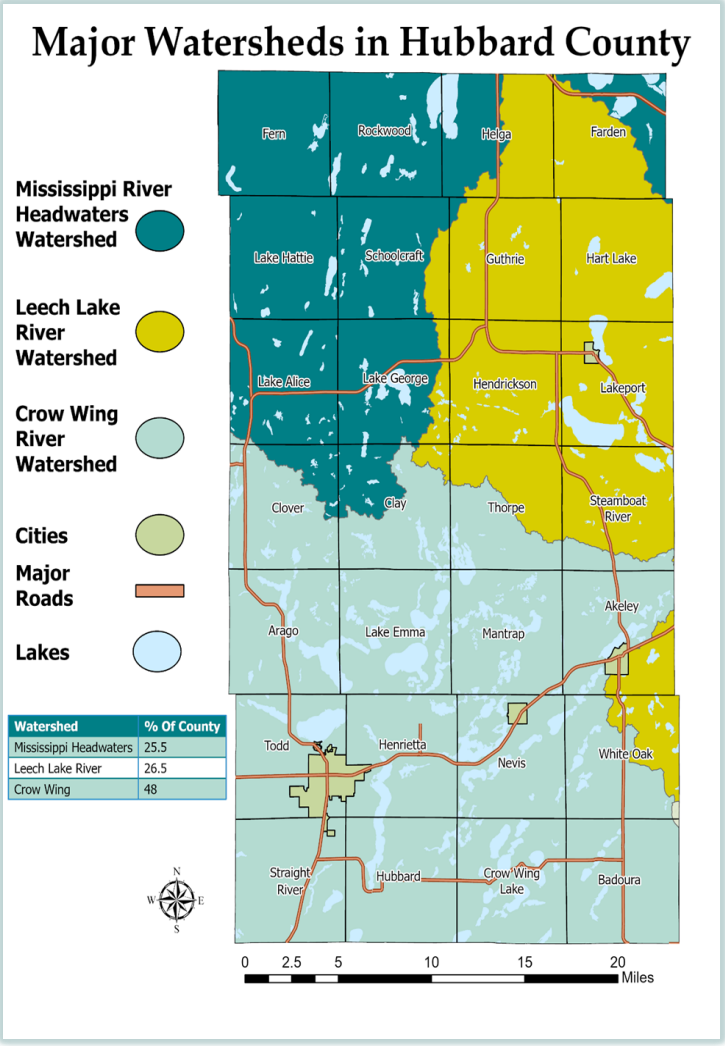
By: Jake Shaughnessy

The One Watershed One Plan often written as 1W1P is a new method of improving and protecting water quality across the state of Minnesota. This method is based around protecting water quality on a watershed level instead of on jurisdictional boundaries. This helps to promote a wholistic approach which focuses on improving total water quality by using watershed wide protection. All the water in Minnesota flows out of the state to either the Red River, Mississippi River, or Lake Superior. With that in mind it is important to ensure that the water flowing out of our watersheds is as clean as possible so that we don't impact recreational waters and drinking water supply. All the water that falls in Hubbard Counties major watersheds flows into the Mississippi River through either the Leech Lake River, Crow Wing River, or directly through smaller streams and overland flows. Over 1.5 million Minnesotans get the majority of their drinking water from the Mississippi making it vital to protect. With our county being located in the headwaters, vital early tributaries protect our water quality and sets a good baseline for the health of the Mississippi.

There are three major watersheds that cross Hubbard County, the Mississippi Headwaters, Leech Lake River, and Crow Wing River Watersheds. The Mississippi River Headwaters Watershed starts at Lake Itasca and stretches across the north section of our county over to Grand Rapids. The Mississippi River Headwaters Watershed covers approximately 25.5% of our county and around 161,333 acres. The Leech Lake River starts in our north-eastern edge of our county along the Necktie River and down through the Kabekona River System. There is also a smaller section on the southeastern side around the Shingobee River. The Leech Lake River Watershed Covers approximately 26.5% of our county and around 168,955 acres. The watershed with the most coverage is the Crow Wing River Watershed which include Park Rapids, Nevis, and most of Akeley. This watershed covers around 48 % of the watershed with a grand total of 308,477 acres. Currently the Mississippi River Headwaters and Leech Lake River Watersheds have active plans being implemented.

Both of these watersheds have conservation focuses on forestry, stormwater, and riparian protection due to being highly forested with many lakes. The Crow Wing River Watershed is currently in the planning phase and is expected to have conservation focuses on Agriculture Best Management Practices, Forestry, Erosion Mitigation, and Stormwater Practices.

In our active watersheds we are looking to assist with private forest management, stormwater issues, erosion, and riparian protection/restoration. Feel free to reach out to the SWCD with conservation concerns as we have increased capacity to assist with a variety of conservation practices in our active watersheds. In the Crow Wing River Watershed we are interested in hearing community feedback and priorities to help us guide our conservation planning process. Please reach out to Jake Shaughnessy with any comments, concerns, or conservation priorities related to the Crow Wing Watershed or if you have a water quality concern at jake.hcswcd@gmail.com. Any forestry and wetland questions or concerns can be directed to Brandon Spain-Brist at brandon.hcswcd@gmail.com



Protecting Your Health Through Smart Drinking Water Practices

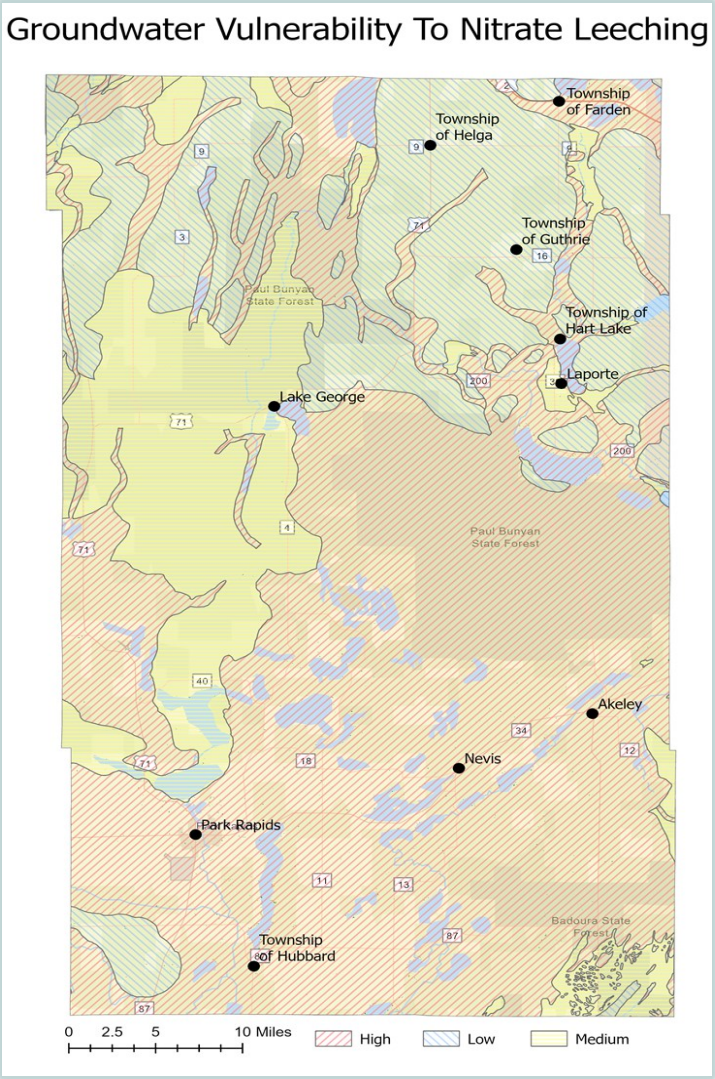
By: Jake Shaughnessy and Claire Hansen

With the famously sandy soils of Hubbard County our ground water resources are at a heightened risk of pollution. This is due to the large pore size in our soils which allows easy infiltration of rainwater. The large pore size also allows a variety of compounds to easily seep into the ground water. This includes a variety of nutrients and chemicals. Nitrates are a common concern due to their impact on health and prevalence in water. According to the Minnesota Department of Health, having excessive nitrates in drinking water can lead to a variety of negative health impacts like headaches, nausea, adnominal cramps in adults. It is most associated to its effects on infants as it can impact the ability to transport oxygen, this is known as blue baby syndrome. To negate these health impacts, a nitrate standard of 10 milligrams per liter or around 10 parts per million of nitrate has been set. Drinking water should be below the 10 mg/l mark to ensure that it is safe to drink. Municipalities must abide by these drinking water standards, but private wells can become contaminated without the owners knowing.

There are a variety of factors on the landscape that increase the risk of nitrate leeching into your well water. Some of the major sources of nitrates come from animal waste, fertilizers, and degraded septic systems. Many older wells and septic systems are not properly placed and can lead to nitrate and bacteria leeching. If you live in an older house with a private well and septic system, it is highly recommended to get your well tested regularly. If you have a private well in an area with current or historically high fertilizer, use it is recommended to regularly test for nitrates in your well.

Well type, well depth, and aquifer geology can also be highly influential on the safety of your drinking water. Shallow wells of all types are at an increased risk of leeching from septic systems and surface water infiltration. Sand point wells are extremely vulnerable to nitrate leeching due to the sandy soils and typically shallow depth. Older wells are also at a higher risk as they may become less watertight and allow seepage from contaminated groundwater sources that are closer to the surface. When placing a new well, it is advised to place your well with nitrates in mind. Often the shallowest spot isn't the safest spot.

The map you see depicts areas of vulnerability due to the soils and aquifer types. This map does not take into consideration any pollution sources so even if you live outside of a vulnerable area it is recommended to get your water tested regularly. If you live in a highly vulnerable area it is recommended to do more frequent testing.



Local resident, and former Natural Resource Conservation Service (NRCS) employee Russ Johnsrud has been testing his water for nitrates for many years. He has records of his water testing dating at early as 2002. Russ began testing his water and finding low results of 1 or 2 ppm, but after heavy land use changes he noticed that his nitrates had risen significantly to between 10 and 20 ppm which is considered unsafe unsafe and can result in adverse health effects.

Protecting Your Health Continued..

After seeing the high nitrate numbers Russ first switched to bottled water, then to a reverse osmosis system. He continues to regularly test his water to keep track of how the filter is working and when he will need to replace it. He uses his RO water for all drinking and cooking purposes, he even makes sure his beloved dog drinks the filtered water. Russ further explained, "I think it is very important to know the basics. Nitrates are not the only thing. That is just an indicator of other things that leech into your water. It is important to test your water because if you see your nitrates rising, you can bet there are other chemicals leeching into the water you drink." He notes, for example, if you have high nitrates due to leaking septic it may also result in high coliform bacterial counts. As a frequent user of the Hubbard SWCD nitrate clinics Russ concluded, "I think it is really, really, nice that the SWCD is doing testing at no cost for landowners. It is quick and a great year-round service, that is incredibly important."

Who should get their water tested? The simple answer is everyone as it is always a good idea to get your well water tested, especially if you have not had it tested recently. In areas of high vulnerability, it is advised to check your water at least every other year but more frequent testing provides a greater peace of mind and can help catch bad water early. If you live in a highly vulnerable area it is recommended to do more frequent testing.

To reduce the burden of testing for nitrates, the Hubbard SWCD hosts free a nitrate clinic the first Friday of every month. We also host a variety of pop-up nitrate clinics at community events including Akeley's Paul Bunyan Days, Laporte Independence Day Celebration, and Friday/Saturday of the Hubbard County fair. Keep an eye on the Hubbard SWCD calendar as we will add additional pop-up clinics there. If you are looking to have your well professionally tested, we have a partnership with RMB Environmental Labs which is an accredited well water lab to provide easy sample bottle pick up and drop-off. This can save you money as a RMB courier will pick up your sample kit from our office. Please contact the Hubbard SWCD office with any questions.

Tree Sale Update & After Tree Sale Seminar

By Brandon Spain-Brist

It is that time of year again. Time to place any last-minute tree, seed, or plant kit orders before we run out (***seed and plant kit orders must be submitted before Wednesday, April 13th***)!

For those who purchased and picked up trees last year, we will be distributing the trees from the same building as last year. Pickup will be in the Paulson Livestock Pavilion starting at 1:00 pm on Friday, May 6th (dependent on weather).

Like last year, we will be using "Picktime.com" to reserve times to come and pick up your trees. We will be sending out postcards to those that placed tree orders and on there you will find a QR code to scan and it will take you to our picktime.com website to reserve your times. We will also have a link on our website if the QR code does not work for you. I would also like to mention, for all of those interested, we plan to have a **Tree Sale Seminar on Friday, May 20th from 1:00 pm- 3:00 pm at Hartland Park.** We have reserved the shelter closest to the parking lot and facilities. Pre-order for trees next year and get registered to win door prizes!

We have booked 2 guest speakers for the afternoon. Dr. Matt Russell, a Forest Ecosystems Specialist from the University of Minnesota who will present **'Effects of Deer Browsing'**, and Dan Steward, a retired Forest Specialist from the Board of Water & Soil Resources (BWSR) who will present on **'Landowners Choose: Implementing Your Vision on Your Land'.** There will be other specialists present to talk with landowners as well. We will also run-through tree planting and after tree planting care.

Depending on weather, we may move our tree sale distribution date. Please check our website and social media pages for any updates or for more information. Call Brandon Spain-Brist at our office if you have any questions or comments at (218) 732-0121 ext. 101.

Private Forest Management

By: Brandon Spain-Brist

Minnesota private forest lands make up about one-third of the state's total forest land. Managing private forests will provide benefits like clean air and water, wildlife habitat, raw materials like lumber, and recreational activities like bird watching, hunting, and angling.

A forest acts as a natural sponge and filters water to keep our waters clean. With a healthy forest stand, it can slow the movement of rainwater to the ground, which will pick up less sediment when it hits the soil. This leads to less stormwater runoff into streams and rivers as well. Clean water is directly connected to our forests and woods, and is a by-product of healthy forests.

One way to ensure that you have a healthy forest would be to get a Woodland Stewardship Plan, or also known as a Forest Stewardship Plan (FSP), written for your forested land. Hubbard SWCD has Cost-Share to help eligible landowners with acquiring an FSP. The property must have a **minimum of 20 contiguous acres of timber/woody vegetative land**.

An FSP is a personalized plan written for your forest property based on the goals and wants you provide to your plan writer. The Hubbard SWCD can provide a list of certified DNR plan writers in the area for those that need help finding one. An FSP is good for 10 years after it is completed and registered through the DNR. After that, the landowner will have an option to enroll in some incentive programs as well.

The first, and foremost forest protection program, is the Sustainable Forestry Incentive Act, or SFIA. This program works as a covenant of 8, 20, or 50 years with payments per acre increasing with the higher covenant years. The 2022 payment rates are:

- 8 years – (Less than 1,920 acres) $9.71
- 20 years – (Less than 1,920 acres) $13.45
- 50 years – (Less than 1,920 acres) $17.18

The second program is the Class 2c Managed Forest Land Incentive. This program may provide you with a classification rate of 0.65%. Applications for this program must be sent to your County Assessor by May 1st to be eligible for the class 2c taxes in the next year.

If you decide to pursue an incentive program, just understand that you must actively follow the FSP management goals to stay enrolled in the programs and receive the incentives.

The Hubbard SWCD will gladly help you to get the Forest Stewardship Plan process started for you, or help to get enrolled in an incentives program if you currently have an FSP. Give Brandon Spain-Brist a call at (218) 732-0121 ext. 101 to chat about your forested land today!

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Rain Monitors Needed in Several Hubbard County Townships!

We are looking for rain monitors in each of the following townships: Badoura, Clay, Clover, Helga, and Lake Alice. If you like keeping track of the moisture you get each year, this is the perfect job for you! Several of our other townships have someone monitoring the rain and snow fall but we could use a second monitor on the other end of their township.

It only takes a few minutes each day to check your rain gauge and record your findings on the monthly sheet. We request that the beginning of each month the recordings be turned in or mailed in to our office. We provide rain gauges and all supplies needed for submissions.

If you think you might be interested in helping us collect this data, please call our office at (218) 732-0121 ext. 105 and ask for Claire Hansen.

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Kids Corner Answers: Water, Trash, Ocean, Global, Pollution, Nature, Reduce, Compost, Recycle, Waste, Energy, Reuse, Litter. THE BLUE PLANET.

Commit to STOP the Spread of Aquatic Hitchhikers

- Clean, Drain and Dry Your Gear and Equipment Before Moving Between Lakes
- Clean Off Any Mud, Aquatic Plants and Animals
- Drain Water....Bilge, Live Well, Bait and Ballast Bags
- Use Bottled or Tap Water to Transport Your Bait

Schedule Your FREE Boat Decontamination - mndnr.gov/decon
Park Rapids 218-252-6738

Hubbard County COLA

Protecting Hubbard County Lakes Since 1988
www.hubbardcolamn.org

HUBBARD COUNTY
Soil & Water
Conservation District

603 Central Avenue N Suite 100
Park Rapids, MN 56470

Phone: 218-732-0121
Fax: 855-547-8729
NRCS Phone: 218-732-9723

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Permit #21

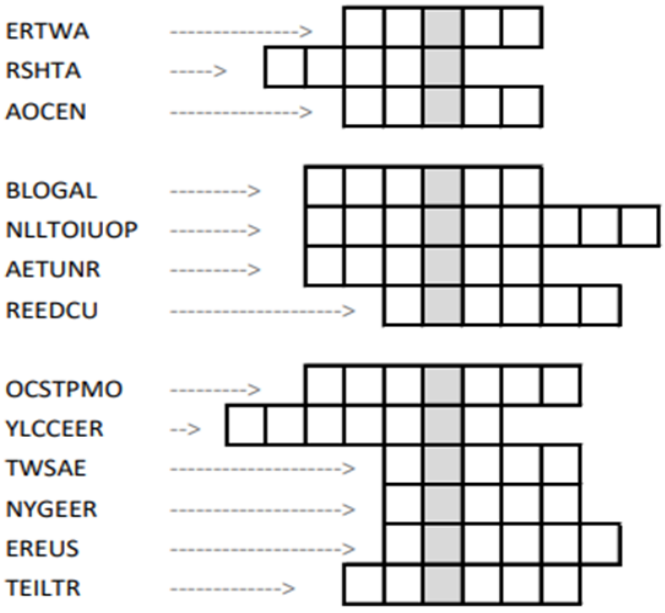
The tree order pickup is still scheduled to be held on May 6th & May 7th at the Hubbard County fair grounds in Park Rapids!

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.

Kids' Corner

WORD SCRAMBLE AND CROSS: Unscramble each of the words on the left and write them in the grid. When the puzzle is complete the shaded letters going down will spell out another name for your home.



Answers on the bottom of page 6!
By: CRAYONSANDCRAVINGS.COM

For more fun information and activities scan the QR Code to visit the Virtual Lab!

2022 Annual Freshwater Festival

Our 2021 annual Freshwater Festival was held virtually last year due to COVID restrictions, but we are pleased to announce it will be held in person this year!

The event will be held May 18th at the Camp Wilderness Boy Scout Camp as usual. Over 300 6th grade students have registered for the event with 5 area schools participating.

This year we are excited to announce that the Bemidji Headwaters Science Center will be bringing 4 live birds including Oswald, the Great Horned Owl, for their Birds of Prey presentation. They will also be presenting the Properties of Water as in the past. These presenters, along with personnel from DNR, Minnesota Pollution Control Agency (MPCA), Minnesota Department of Health (MDH) and local experts will have sessions on a variety of water-related topics to stress the importance of water resources in our lives.

This event is supported by our generous volunteers and sponsors. If you would like to volunteer or donate to help support this wonderful event please contact the Hubbard SWCD Office at (218) 732-0121 ext. 105.

Like us on Facebook!