

SWCD Focus

2021 Drought

Information Compiled by: Alicia Laturnus

It was hard to be a farmer during the 2021 growing season, to say the least. The majority of Hubbard County reached D3 – Extreme Drought status by July 13th. That’s according to the US Drought Monitor (website www.droughtmonitor.unl.edu) The entire county soon followed and remained at D3 status until August 24th. Then the Southern part of the county received some much-needed rain. A week later, the majority of Hubbard County was downgraded to D2 – Severe Drought status. Timely autumn rains and winter precipitation are needed to build up the soil moisture for springtime plantings.

We had several livestock owners contact our office this past summer with different drought related problems. #1 was for the need to find hay and forage and #2 was for the need to find a reliable water source. NRCS didn’t have a program for immediate relief but they were referred to the Farm Service Agency and Minnesota Department of Agriculture for possible assistance.

The NRCS Environmental Quality Incentive Program (EQIP) can help set up a prescribed grazing system that can help eliminate some drought related problems. A prescribed grazing system can install a reliable water source with a new well, pumping plant, pipeline, and water tanks. A pasture & hay planting may be installed to replenish a waning hay field or pasture paddock. Soil samples will need to be taken and analyzed to know what the land needs. Maintaining an appropriate stocking rate and moving the cattle from one paddock to another on a timely basis will increase plant photosynthesis and root growth. Hearty growth and deep roots could lead to feeding hay later in the fall or possibly winter.

NRCS can provide technical assistance any time. Call or email the office with any questions. We could set up a site visit to talk over the goals of your land. If financial assistance is desired, we will let you know when the next application deadline is announced.

The weather isn’t truly predictable but there are tools that can help you be prepared for the extremes.

High Tunnel System

Information Collected by: Dan Pazdernik

High tunnels have gained interest across the county over the years. NRCS can provide financial assistance to landowners with the Environmental Quality Incentives Program (EQIP) and can provide technical assistance for those that request more information on these structures. Our office typically receives several questions on this practice. The information below comes from the High Tunnel System practice standard to help clarify some of these questions.

The high tunnel structure must be planned, designed, and constructed from a manufactured kit in accordance with manufacturers’ recommendations. The high tunnel frame must be constructed of metal, wood, or durable plastic; and be at least 6 feet in height at the peak of the structure. If required for enclosure, end wall covering may be greenhouse-grade plastic, polycarbonate, wood, or other. Use structures with the entry/exit point sized to facilitate movement of equipment and supplies needed to produce planned crops.

The practice standard has a five-year lifespan. For polyethylene covers, use a minimum 6-mil greenhouse grade, UV-resistant material.

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District Supervisors

Hubbard County SWCD Board meets the 2nd Wednesday, monthly, at 8:30 a.m. via Zoom, or at:
603 Central Avenue North
Park Rapids, MN 56470
(218) 732-0121 ext. 4

- Marcel Noyes, Chair
- Don Rettinger, Vice-Chair
- Lynn Goodrich, Secretary
- Don Sells, Treasurer
- District 3 is Open

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Free Drop-Off Nitrate Clinic will continue to be held the first Friday of each month at the SWCD office located at 603 Central Ave N Park Rapids, MN. As weather permits staff will continue to bring results out to our clients. When weather is bad, staff will forward results on to client with the email they provide upon dropping off their sample. Please call 218-732-0121 ext. 4 if you have any questions.

High Tunnel System continued...

High tunnels shed a large amount of water and can create drainage and ponding issues where none previously existed. Direct runoff away from the high tunnel structure to avoid ponding.

Managing a high tunnel requires intensive and vigilant attention by the producer. NRCS will prepare an operation and maintenance (O&M) plan and review with the landowner and/or operator responsible for the practice. The producer will periodically inspect the high tunnel and repair, reinstall, or replace, as needed to accomplish the intended purpose. Manage the structure in a manner that limits wind and/or snow damage.

Close sides and ends before storm events. In areas that receive snow and ice, the structure should be closed prior to winter weather. Remove snow and ice from the structure cover and sides promptly to prevent structure failure.

Removal of cover materials shall be consistent with the intended purpose and site conditions. Plan for proper disposal of the cover at the end of its useful life.

The NRCS encourages all landowners who are seeking assistance with high tunnels to contact our office at 218-732-9723 ext. 3 at any time. If financial assistance is of interest, please call the office to schedule an appointment to start the planning process.

Helping People Help the Land

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Landscaping for Water Quality and Conservation

By: Jake Shaughnessy

Water quality and conservation can go hand in hand with maintaining beauty and enjoyment of your yard or shoreline. One of the biggest threats to our water quantity and water quality is runoff and erosion. Impermeable surfaces like roofs, driveways, and decks can produce a lot of quickly moving runoff. The faster moving water reduces the infiltration rate causing more erosion and reducing recharge of ground water. Impermeable surfaces are often necessary parts of our cities, homes, and roads. This makes mitigating the increase of overland flow one of the best ways to protect our waters and way of life.

Shoreline erosion is often caused by a series of compounding factors that can be further away from the impacted area than you would expect. Many try to stop erosion by protecting the eroding area but do not consider what is causing the erosion. Reducing runoff from the get-go is the best way to build resilience on a landscape. This makes looking at erosion from a landscape approach much more efficient than treating the impacted area. In many lakeshore areas runoff from roofs, roads, and driveways play a large part in shoreline erosion. Reducing the amount of runoff produced from these areas is one of the best ways to protect your shoreline and water quality. One simple way to help address runoff from driveways and roads is to implement filter strips. Filter strips is most commonly associated with agriculture, but the concepts can be highly effective for shoreland area. A filter strip is a vegetated section that is designed to intercept runoff and slow it down. Filter strips are great for removing sediment and excess nutrients from surface flow. Slowing the flow can also increase the amount of water that infiltrates. Water flowing through the ground enters waterbodies much cleaner than if it were to flow overland. Filter strips can become a beautiful part of your landscaping that helps protect water quality.

If there are many sources of overland flow a vegetated swale may be a more impactful way to slow and treat runoff, erosion, and to increase water infiltration.

A swale is essentially a u-shaped depression designed to reduce erosion, resist erosion, and to increase water infiltration. A swale is designed to be resilient to higher amounts of runoff and is channeled into one area. The soils and substrate of a swale is amended to increase infiltration rate of overland flow. Along with amended soils, adding a robust community of water tolerant plants can help reduce the speed of overland flow and remove sediments. The vegetation and the amended soils work hand in hand to treat and infiltrate stormwater to protect shoreline from erosion and waterbodies from excess nutrients. Swales often require a bit of thought into their placement and design to properly work. Placing a swale in an area in which it can best intercept runoff from most of the property is ideal. It is common to add additional downspouts and subsurface drainage piping to ensure runoff from roofs enters the swale. A swale will often outlet into a rain garden.

Raingardens are similar in purpose to swale except that it retains water instead of treating moving water. A rain garden is essentially a basin designed to retain and infiltrate water. They get the garden part of their name because they typically have a variety of plants that are used to remove excess nutrients from the water. Raingardens are best placed just uphill of a natural low spot as this allows them to intercept water that naturally flows towards the low spot. Placing them in naturally low and wet area can reduce their efficiency at infiltrating water. Raingardens also have amended soils that help increase the infiltration rate.

Overall reducing the amount of runoff across the entire landscape is an effective way to reduce erosion and improve water quality. Taking a good look at your landscape during a rain event can be eye opening and help you understand where runoff is coming from and where you can treat it. Improving water quality can also improve the aesthetics of your shoreland by adding vibrant and diverse plants throughout your landscape. Along with beauty, landscaping for water quality can have very minimal to no impact on how you use and enjoy your land all while protecting our lakes and rivers.



Keep *your* waters pristine.



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- 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

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Pollinator-conscious Fall Yard Cleanup

By: Claire Hansen

We often plan for our pollinators in the summer by planting beautiful blooming flowers in tidy gardens, but what can we do for them in the fall and winter?

Many of the pollinators in Minnesota that do not migrate go into a state of dormancy known as diapause. Prior to this dormancy, pollinators begin seeking a place to rest for the winter. Some solitary bees begin nesting, and others laying eggs for the next generation. Moths and butterflies in all stages of development find a place to burrow, build cocoons, and lay eggs for the cold months ahead. All these phenomena are happening in the natural spaces around our yards and there are a few things we can do to help ensure their survival!

One of the most valuable actions to support pollinators in your yard may be to leave your leaves. Though many consider leaf litter a nuisance, to an entomologist they are a goldmine. Leaf litter provides food, shelter, and breeding grounds for many insects. Swallowtail butterflies and luna moths will even camouflage their cocoons and chrysalises as dried leaves. The most valuable thing you can do is leave the leaves on your lawn and in your gardens. If you are unable to, due to homeowner associations or other restrictions, consider raking them off your lawn and gently placing them in your garden beds and planters. Come spring make sure to wait until temperatures consistently are above 50 degrees before removing your leaves to ensure all your pollinators have time to hatch or come out of dormancy before mulching. An added benefit to leaving your leaves until spring offers your plants nutrients and helps insulate them from the cold.

As well as nesting in leaf litter, many pollinators seek shelter in stems and sticks. Consider leaving your dead flower and grass stalks standing for the winter. Many mason bees, leafcutter bees and carpenter bees, as well as countless other insects prefer to lay eggs in winter in stems and wood. Pithy canes of brambles are also a favorite for stem nesters.

If you need to cut down your dead plants, consider leaving the stems at least 18-20 inches tall and bundling your remaining stems. Then place your stem bundles in a location where they will not be disturbed. You can even bundle your stem stalks and sticks and place them in a horizontal pot or nook to create your own homemade solitary bee house. Watch the bees fill and cap the stems you created for them!

Finally, another pollinator friendly tip is to avoid ground disturbances. There are many ground and cavity nesters. Bumble bees and mining bees, for instance, prefer to nest in burrowed bare soil and in dead wood. In the fall, it is best to avoid tilling and digging projects to avoid nest disruption. Many garden beds are ideal nesting sites. For tunneling bees, try to leave any standing dead trees, if they are safe. If wood needs to be moved, find a place out of the way where you can pile it for the pollinators. Many moths and butterflies also use these sticks and branches as a sturdy place to affix their cocoons.

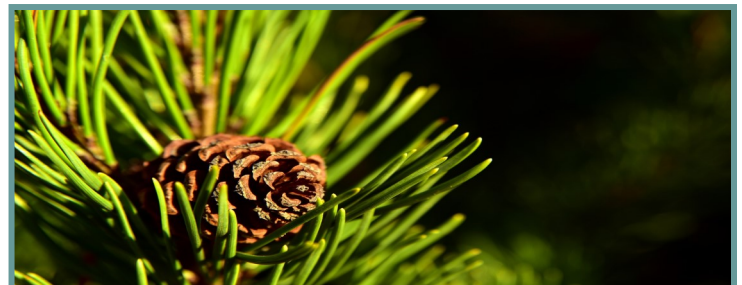
Creating a pollinator-conscious yard is fun and easy. It often requires less maintenance than you may be used to! Support your wild pollinating insects, be an advocate for your bees, and most importantly tell your friends! Every yard helps and every unturned leaf may harbor a treasure.



2022 TREE SALE!

Hubbard SWCD is excited to present some new items on our 2022 tree order form! We have swapped a few new species of trees again and will offer a great variety of seeds and plant plugs for everyone wanting to grow beautiful gardens that help our pollinators. Please place your orders as early as possible to assure you get the items you would like. Our nurseries have indicated that some tree species are low in supply and will run out early on during the ordering period. If you wait until January or later, we may not be able to fill your tree/shrub requests.

We will continue to sell tree and shrub stock until sold out. All plant plug and seed orders must be completed by or before April 1st, when we place our order for these items. We are still waiting for final confirmation from one of our nurseries and we will update our order form posted in our website as soon as we get confirmation. Visit our website at <https://www.hubbardswcd.org/>.



Complete the enclosed form and return with payment to our office by mail or by dropping off at our office. Our doors are locked to the public, but we would be happy to come out and help you when you arrive. Just knock on the door or call our office when you arrive, (218) 732-0121 ext.4, so we know you are here!

Well Water Levels for the Summer of 2021

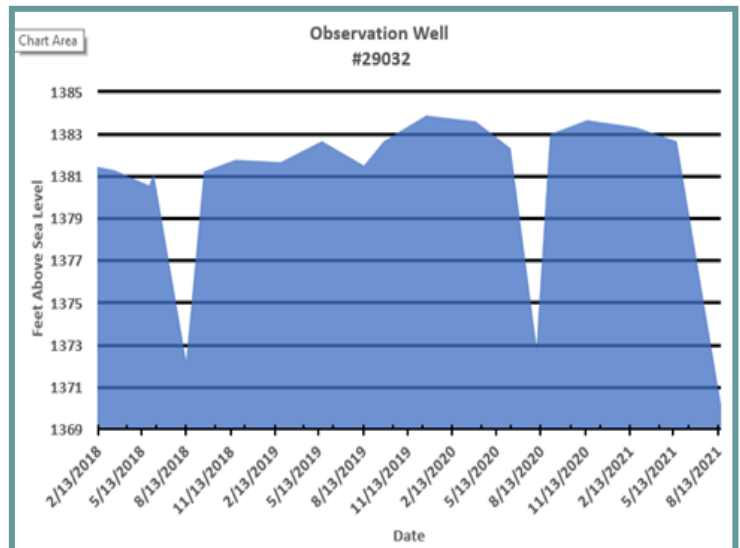
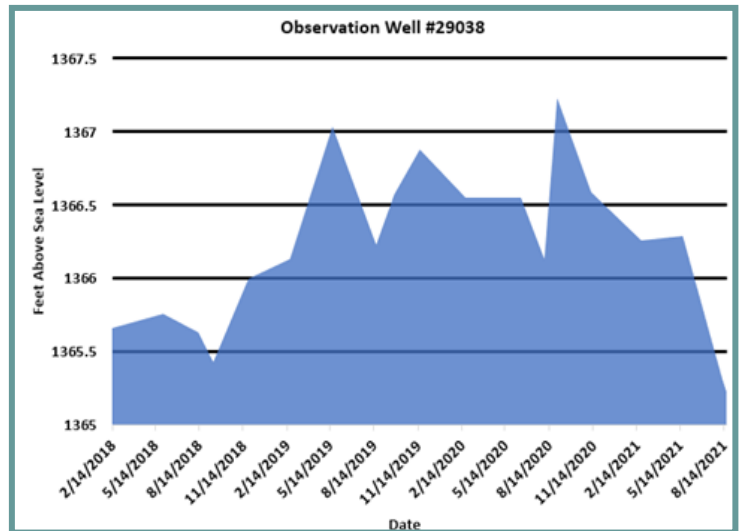
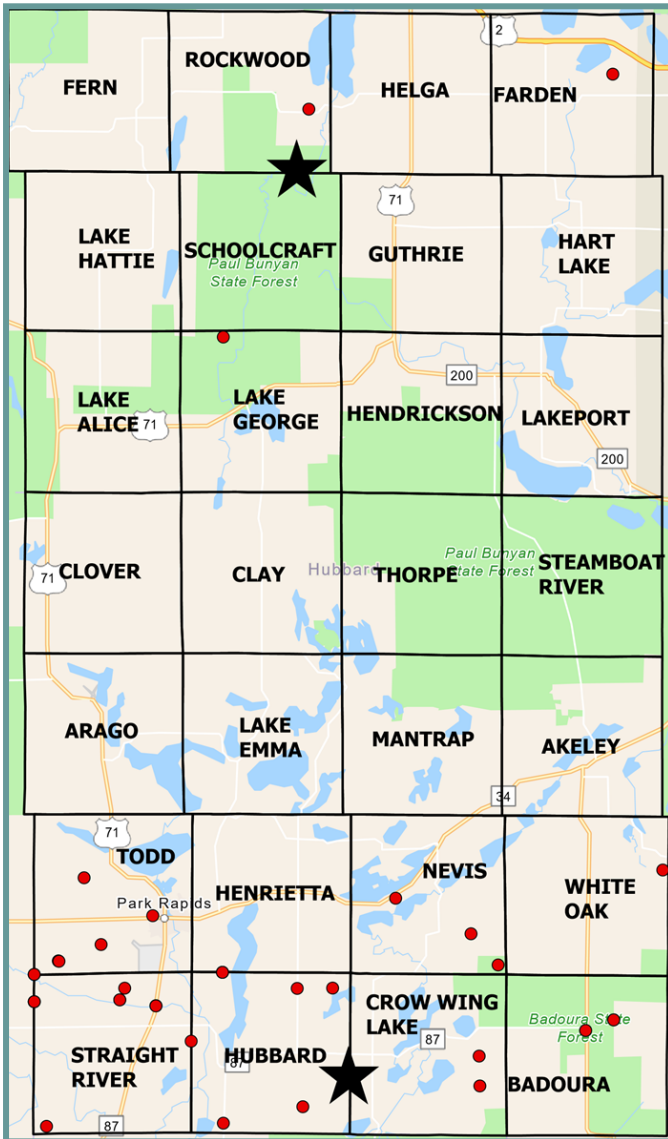
By: Brandon Spain-Brist

This summer has been a summer to remember for various reasons, from an outbreak with Covid-19 to having drought conditions. The drought conditions we have experienced has left many wondering what the groundwater levels look like in Hubbard County.

The Hubbard County Soil and Water Conservation District (HCSWCD) has been monitoring the DNR Observation Wells (Obwells) and recording data dating back to the 1980's. We monitor each well on a quarterly basis and the information can be found on the DNR website under the Cooperative Groundwater Monitoring webpage at <https://bit.ly/3lOenHt>. You will be able to see all the wells the DNR monitors and reports.

Obwell #29038 is located in northern Hubbard County and shows levels that go up and down erratically, while Obwell #29032 is located in southern Hubbard County and shows trends of summer months when the water table drops down but stays stable the rest of the year.

Based on how dry this summer has been, it should be expected to see the water levels drop. However, we can see fluctuations in water levels commonly represented in previous years. Most of the wells are showing a similar trend to previous water level decline, as shown in the southern well graphed. There is one more round of data gathering that must be done yet this year, and that data should show a recharge in groundwater among most, if not all, of the wells in Hubbard County.



The county map above shows all the wells we monitor in Hubbard County. The two wells' shown with a star have been graphed from February 2018 through August 2021 showing their ground water level history measured above sea level.

If you have any further questions, you can contact us through our website at <https://www.hubbardswcd.org/> or call our office at (218) 732-0121 ext. 4.

Resiliency

By: Crystal Mathisrud

Resiliency is an important concept in almost every line of work right now. We want our businesses to be resilient, our supply chains to be resilient, our schools, our workforce and our landscapes. Resiliency applies to everything because it is the process of setting your systems up to be more flexible and able to thrive while absorbing change.

If you look closely at businesses that thrive decade after decade, usually you will find a management team who plans for resilience through creating stable partnerships for supplies, sales and people while also fostering a culture of creativity and innovation. New ideas are heard and explored while the foundational ideas and methods are remembered and honored rather than forgotten.

In every system, resiliency is achieved in the same way: a team of people with a common mission and vision plans and takes incremental steps to get from the current state to a steadily increasing resilient state. Planning must be thoughtful and immediately followed by actions that produce measurable results. Sometimes inputs toward resiliency are difficult or costly, but the result pays for those challenges and costs because the negative impact of stress is reduced and system success is maximized.

Landscape resiliency can be achieved in the same way and most of our SWCD programs are intended to help landowners achieve resiliency on their landscapes while supporting the systems that they value whether it is for agribusiness, forestry, shoreland, wildlife or aesthetic goals.

We all like to know we are set up for success rather than for failure. That's what resiliency is about and why we continually seek new partnerships with local organizations, landowners and

community groups. If you have a project idea that is focused on landscape resiliency, water quality or soil health, let us know what it is so we can figure out how we can help or what new source of funds we can pursue to help more in the future.

Here are a few ways we all can increase resiliency in our backyards, forests and fields quickly:

1. Minimize soil disturbance
2. Increase plant cover and diversity with deep rooted plants that grow for the extended growing season so that the roots hold water and improve the soil
3. Store and stretch water within the local landscape with features such as rain gardens and swales so that we reduce run off and create a store of moisture for times of drought

In addition to these steps, current SWCD programs aim to increase resilience by providing assistance for shoreland buffer improvements, shoreland restoration, forest stewardship and management plans, spring tree sale, well sealing, water testing, pollinator habitat development, implementation of agriculture best management practices, irrigation scheduler program training, assistance with agriculture water quality certification and many options for presentations and education, including our growing Minnesota Watersheds Virtual Lab education and resource hub online. Check it out at: <https://www.hubbardswcd.org/watershedsvirtuallab/>.

Thank you all for reading and for all of the ways you have and continue to partner with us for the betterment of our landscapes and our community.

New U of M Extension Staff

Welcome the new Interim Extension Agriculture, Food & Natural Resource Educator, Tarah Young.

Tarah comes to the Park Rapids Extension Office with a bachelor's degree from Southwest Minnesota State University in Agronomy and Agribusiness Management. After College, she was hired in a local extension educator position, where she developed a passion of educating communities in agriculture, food, and natural resources.

Tarah was raised on a small hobby beef cattle farm, sparking an interest in agriculture as a career path. She is currently working on earning her Master of Science in Applied Plant Science through the University of Minnesota. She enjoys hiking, gardening, and DIYing fun projects around the house. Please call her at (218) 732-3391 or stop by the Extension Office at the fairgrounds if you have any questions for her.



District 3 Supervisor Needed!

Hubbard SWCD is looking for an interested person to serve as our District 3 Supervisor. If you have an interest in serving your county by helping to keep our waters at their pristine condition, please reach out to our office and we will answer your questions and welcome you to help serve our community. This is an elected position but you can be appointed until elections come around.

NACD Urban Agriculture Grant

By: Jake Shaughnessy and Claire Hansen

The National Association of Conservation Districts (NACD) grant focused on urban agriculture and water quality planting has been a great success so far. There has been a lot of interest from the community regarding gardening and landscaping for water quality. We have met with many landowners about how to protect local lakes and rivers through water friendly landscaping. We have also worked alongside with the Hubbard Coalition of Lake Association to promote shoreline stewardship and water quality.

The water quality part of the grant has primarily been focused on using a landscape approach to protect water quality. Erosion typically results from a myriad of compounding factors including slope, impermeable surfaces, soil type, topography, and vegetation. Offsetting the impacts these individual factors have on runoff can be very beneficial to water quality. A landscape approach focuses on reducing runoff at its sources instead of treating it at that water's edge. Slowing runoff and increasing infiltration at the sources reduces the erosive power of storm water. This can reduce the amount of runoff you need to deal with downhill making the whole landscape more resilient to runoff. If you are having issues with stormwater pay attention to the sources.

Treating one source at a time can be an efficient and cost effective way to reduce erosion and improve water quality. If you are interested in learning more about how to landscape for water quality on your land feel free to reach out to Hubbard SWCD.

Another component of the NACD Urban Agricultural Grant is to create demonstration gardens around the region. Hubbard SWCD has partnered with a variety of organizations to create these gardens. They range from fruit gardens, to raised bed vegetable gardens, rain gardens, and dry pollinator gardens. These gardens are located on the maps below. Each garden will soon include signage to explain the process and benefits. Stop by and follow our progress as we work! Feel free to check out the gardens, help yourself to some vegetables at the Depot Park raised bed garden and reach out to us if you are interested in creating your own pollinator garden. Call our office if you would like more information on starting your own garden!



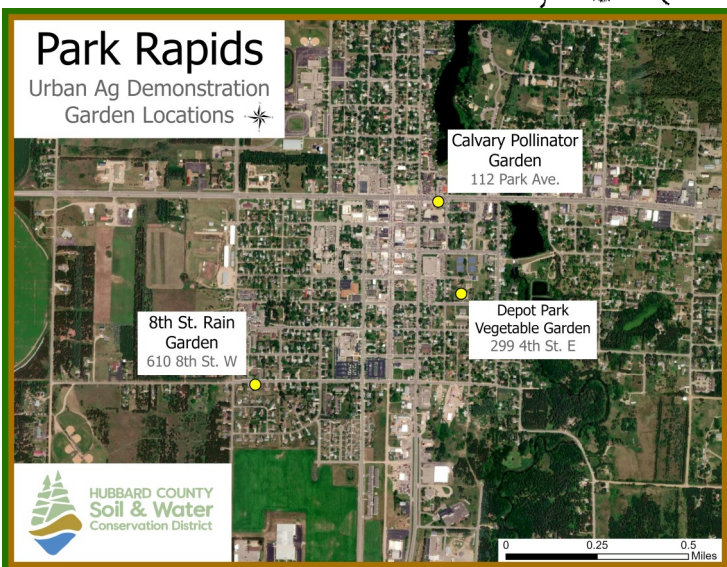
Description of the Gardens:

Depot Park: The Depot Park Community Garden consists of four raised bed mixed vegetables and herbs. The garden was placed in the park next to the skate park with approval from the City of Park Rapids in order to create an accessible space for the public and community youth to access fresh vegetables and learn about growing food. These gardens were filled with plants donated by the community. We hope with this garden is that a small dedicated group can take over spring plantings with our assistance in the future.

Calvary Pollinator Garden: The Calvary Lutheran garden was created with support from the Calvary Lutheran Church. The garden consists of a shortgrass prairie pollinator seed mix along the road facing side with fruit shrubs lining the back. Requested plants of interest such as false indigo, sand cherries, elderberries, and more were provided for the garden. Members of the church have continued watering and maintaining the new shrubs.

8th Street Rain Garden: The 8th street garden was created to address stormwater runoff into a vacant property owned by the City of Park Rapids. This garden consists of a center seeding of a detention basin pollinator mix that is resistant to water level changes. Surrounding that was planted with shortgrass prairie pollinator mix. This should be resistant to dry conditions and dry soils, while providing pollinator habitat. The final section was sowed with a low mow fescue mix. This will serve as a demonstration plot. All seed was covered by an erosion control blanket to keep seed in place until spring germination.

'The Door Coffeehouse' Fruit Shrub Garden: This fruit shrub garden in Laporte at The Door Coffeehouse was created and implemented upon request. The owners of the coffee shop and emergency shelter were looking to beautify the view from the coffee shop and attract birds. A variety of native and naturalized fruit shrubs were added to the space. We worked with YouthWorks youth volunteers to implement the garden. The shrubs will provide attractive blooms for pollinators and fruit for the wildlife. The fruits can also be harvested for baked goods, jellies, jams, and more.





HUBBARD COUNTY
Soil & Water
Conservation District

Non-Profit Organization
U.S. Postage
PAID
Park Rapids, MN
Permit #21

603 Central Avenue N Suite 100
Park Rapids, MN 56470

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

2022 Tree Order Form is enclosed!

EEO- All programs of the Hubbard County Soil & Water Conservation District are offered on a non-discriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

EEO-The USDA prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political belief, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information should contact USDA's TARGET center at 202-720-2600.

Mission Statement

The purpose of the Hubbard County Soil and Water Conservation District is to provide leadership, education, technical advice, financial assistance to landowners, cooperating agencies for various programs and projects with the goal being the whole community working together in harmony to pursue the sustainable management, wise-use, and protection of the District's soil, water, forests, wildlife, and recreational resources.

Kids' Learning Corner

Trees

J D L J E V E R G R E E N P
T D E C U R P S E U L B L L
Z V K P K T G W P M D B B R
Q Z K D U C H M E T O C Y V
Q T Z N F I R K N V O H X S
K B L K G O A K I M W E T U
K A V I W W P H P P N S K T
W P F A P P L E D E O T W P
Y P Y E L M E O M A T N I Y
R P H V D L O R N C T U L L
R A Z P P W X J L H O T L A
E L M A G K K R Z Z C X O C
H M M O L H I C K O R Y W U
C C D Z Y K R F B I R C H E

Words:

- Apple
- Birch
- Fir
- Blue Spruce
- Hickory
- Cherry
- Maple
- Chestnut
- Oak
- Cottonwood
- Palm
- Dogwood
- Peach
- Elm
- Pine
- Eucalyptus
- Walnut
- Evergreen
- Fig
- Willow

Custom puzzle made using [1-2-3 Word Search Maker™](http://www.1-2-3-Word-Search-Maker.com)

2022 Annual Freshwater Festival

Hubbard SWCD is planning to hold the 2022 Freshwater Festival in person at the Camp Wilderness Boy Scout Camp by Emmaville on Wednesday, May 18, 2022. We usually need 15-20 volunteers to help monitor/transfer classes around the campgrounds as they attend the sessions throughout the day of activities. If you would like to help us and have the day open (8am-3pm), please call our office to find out more information when it gets closer to spring. Thank you and we look forward to seeing you in May!

Rain Monitors

Do you have a few minutes to spare each day?

Hubbard County SWCD would like to have someone monitoring our precipitation in each of our townships. We are looking for monitors in the following townships: Badoura, Clover, Helga, Lake Alice and Thorpe. Several other townships could use a second monitor within their township. It only takes a moment to check the gauge and record your findings each day on the monthly sheet we provide. Then you turn in or mail in to our office the end of the month. If you are interested in helping, please call our office at (218)732-0121 ext. 4 for more information. We supply all materials for our monitors!

Visit our website and Facebook pages for further information and details on what is happening with our virtual lab and other projects throughout the year.

Like us on Facebook!

