

# Le Sueur County Environmental Services

**NEWSLETTER**  
**January 2, 2025**

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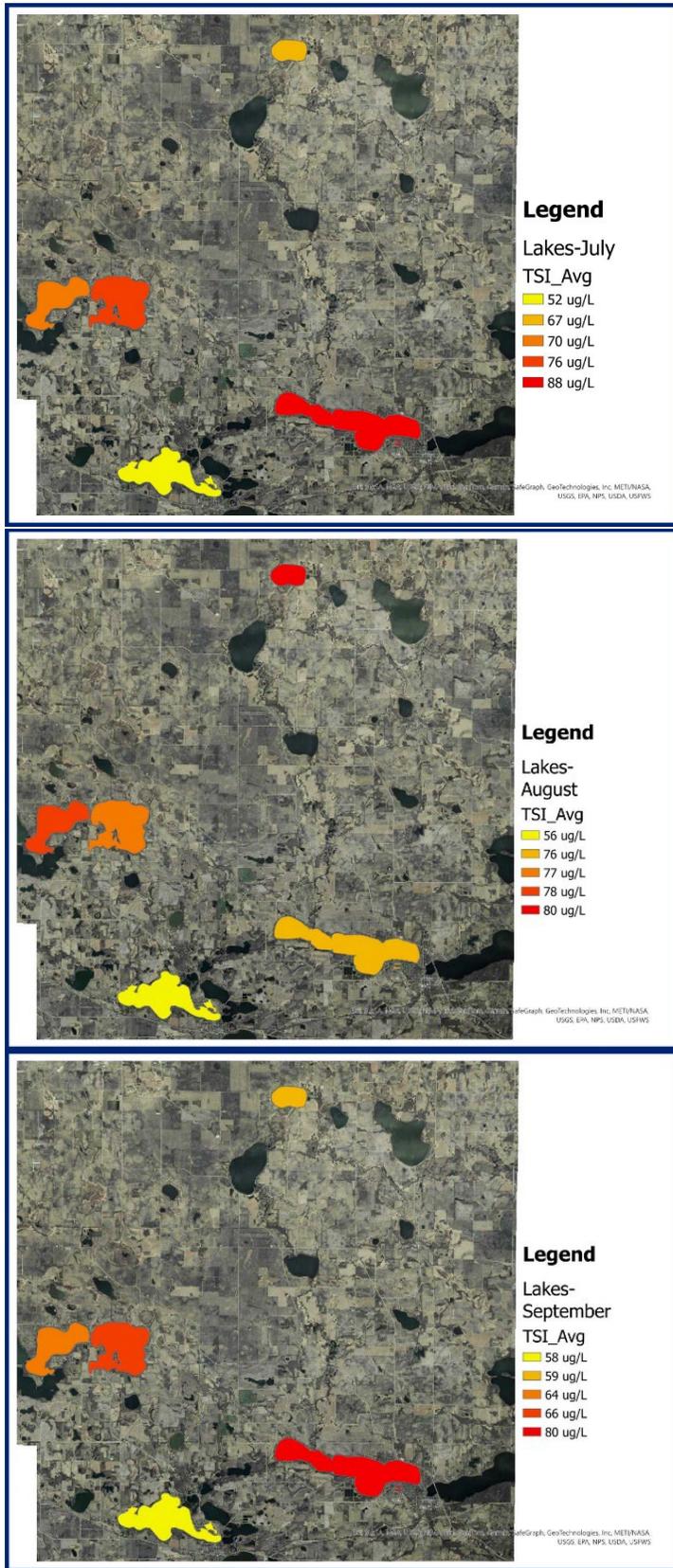
# 2024 Le Sueur County Lakes Water Sampling Efforts

This spring, Le Sueur County Environmental Services was able to attend a majority of the County lakes yearly Lake Association meetings. During said meetings, staff presented to these organizations, and among other things, gauged interest in lake sampling. Around the beginning of June, after most of the meetings were held, Le Sueur County reached out to individuals who indicated a willingness to participate with this program. Through the fast timing of RMB Environmental Laboratories, coolers and bottles for the sampling were sent out in time to sample from July to September.

The process of sampling went relatively smooth this season. In late June, the coolers were delivered to the County. Each individual came in to grab their cooler, and listen to information about the correct sampling methods and other relevant sampling details. The Total Phosphorus and Chlorophyll-A samples were taken and dropped off to the County on the third Monday of the month; samples were typically taken the Sunday night before. The County brought all of the samples up to the laboratory once they were all brought in, and replaced the sampler's cooler within new bottles for the next month.

This year, a total of five lakes signed up and participated- East Jefferson, Frances, German, Tetonka, and Volney (See Figure 1 below for sampling data). The scale shows the average Trophic Scale Index (TSI) of both the Chlorophyll-A and Total Phosphorous results. The TSI of a lake indicates how much bio productivity there is. Although the levels between the lakes fluctuated throughout the season, they all scored from fair (40-60 TSI) to poor (60-100 TSI). Some degree of error could be from the unnatural flooding event that occurred this past June, but with consistent sampling for the next few years, a clearer picture can be determined.

The intended full season for sampling is May to September. Now that the program has been established, Le Sueur County is hoping to complete a full season of sampling, along with potentially adding more lakes to the program. There are roughly 5 additional lakes looking to sample next year, giving a total number of 10. If you or anyone you know is interested in becoming a part of this program, reach out to Trevor Rudenick, Water Resources Planner, for more information. See staff list at end of newsletter for contact information.



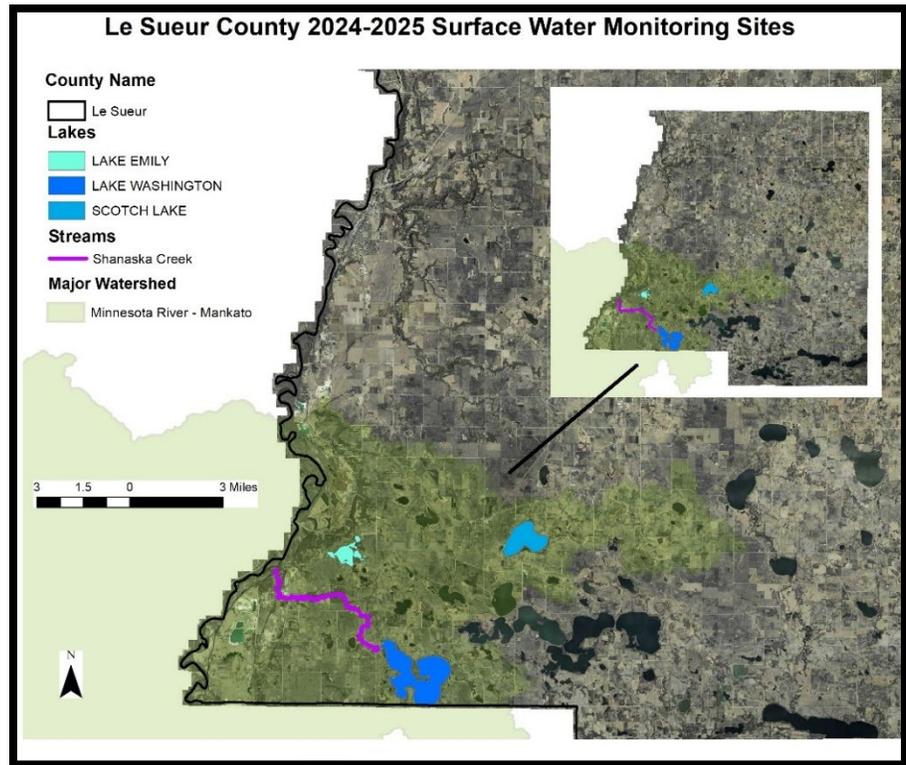
**Figure 1. Combined TSS for Lakes from July-September 2024.** Photo Credit: Le Sueur County. Data retrieved: RMB Labs

# Middle Minnesota River-Mankato Watershed Monitoring Efforts

Le Sueur SWCD and Le Sueur County have partnered for monitoring efforts in the Middle Minnesota River-Mankato Watershed. These monitoring efforts are due to the State of Minnesota entering into its second round of developing the Watershed Restoration and Protection Strategies Report. This report assessing conditions within a watershed and provides recommendations on how to protect and improve. As part of developing this report, water resources, both lakes and streams, are monitored and sampled for different water quality parameters.

The resources that were selected for Le Sueur County within this watershed are Lake Washington, Lake Emily, Scotch Lake, and Shanaska Creek. Lake Washington and Scotch Lake will be sampled only in 2024 and Lake Emily and Shanaska Creek will be both be sampled in 2024 and 2025.

Sampling efforts in 2024 were impacted by June flooding events. As a result, staff sampled twice in July.



**Figure 2. Map of Monitoring Site for Middle Minnesota River-Mankato Watershed.**  
*Photo Credit: Le Sueur County*



**Figure 3. Blue Green Algae Lake Washington.** *Photo Credit: Le Sueur SWCD*

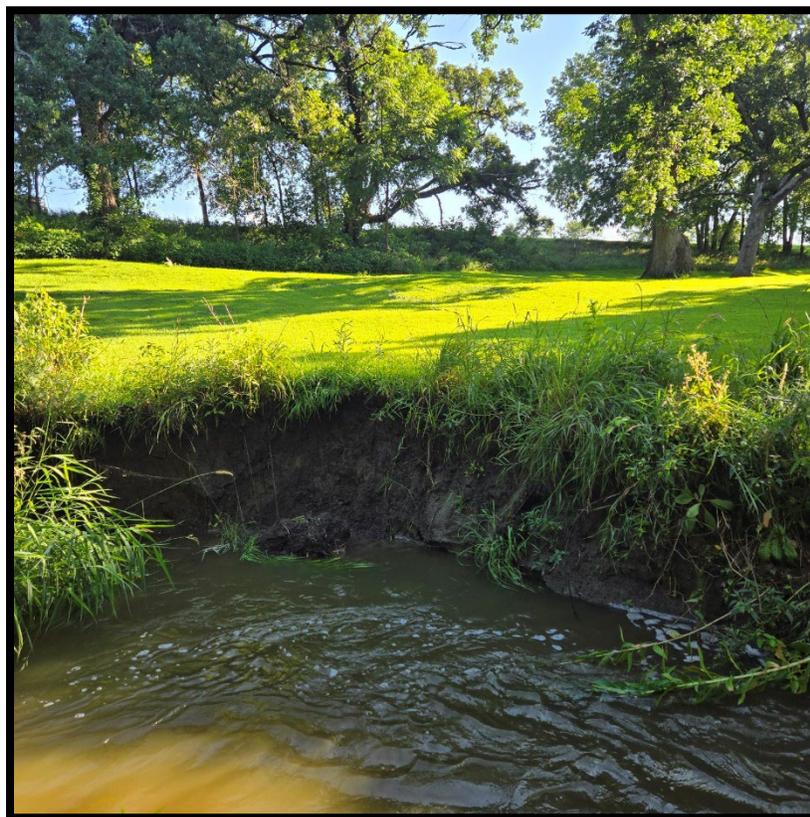
# Middle Minnesota River- Mankato Watershed Monitoring Efforts

Lakes were sampled to assess Total Phosphorus, Chlorophyll A, and Water Clarity. Lake Emily was the only lake that did not have Blue Green Algae present during the sampling season. Blue Green Algae is a direct result of excess nutrients entering into a lake.

Streams are sampled to assess Total Phosphorus, Dissolved Oxygen, Total Suspended Solids (Sediment), Bacteria, water clarity, and pH. Throughout the season, Shanaska Creek water levels fluctuated. Staff noticed that streambank erosion had increased due to high water flows.



**Figure 4. Shanaska Creek Minor Bank Erosion May 2024.** Photo credit: Le Sueur SWCD



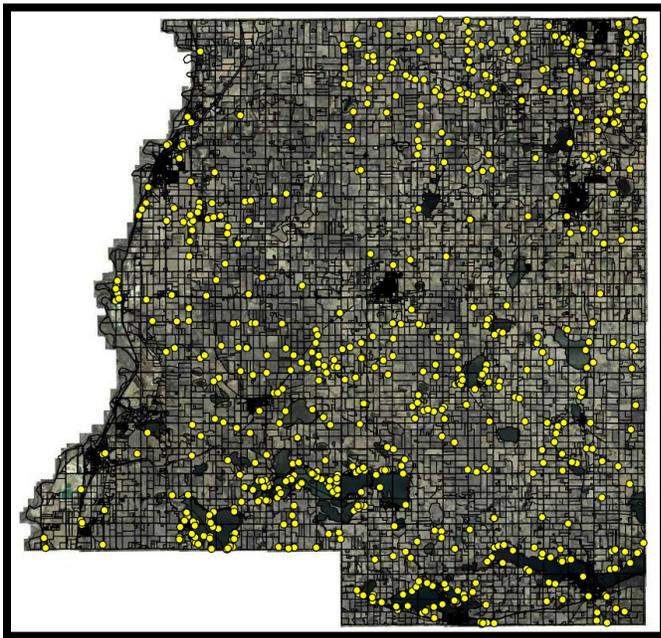
**Figure 5. Shanaska Creek Moderate Bank Erosion August 2024.** Photo credit: Le Sueur SWCD

# Locating Unverified Wells - Geologic Atlas Update

In our April Newsletter, we posted about locating unverified wells in the County for the purpose of beginning a Geological Atlas. By using well boring logs, which list the composition of geologic features at the location of the drilled well, the University of Minnesota and the Minnesota Department of Natural Resources can map the County's mineral and water resources. This will be a guiding tool for the County when making determinations on future land and water management activities and proposals.

At the time of the last newsletter, we estimated around 1500 unverified wells to be located in the county. To tackle this large number of wells, it was decided to work township by township, starting with the smaller or less densely populated townships, and working the way up to the larger townships. Kilkenny and Ottawa were worked on in April, Derrynane in July, Cordova in September, and Cleveland and Washington in November. Along with the townships mentioned earlier, various other townships were checked using older permit records that indicated a location of the well.

Through all of these efforts, so far, we have been able to locate 695 wells! (see figure 4) That puts us close to the halfway point of this process. This upcoming winter and spring of 2025, Le Sueur County will be sending out more postcards to the remaining townships and work to finish the project by early summer if applicable. As a reminder, if you receive a postcard, you do not have to be present for the subsequent site visit. However, if you have information for locating the well, you can contact either Trevor Rudenick or Holly Bushman to provide this information or to set up a site visit.



**Figure 6. Well Location Map.** Photo Credit: Le Sueur County

## Well Location Announcement

Dear Le Sueur County Property Owners:

Le Sueur County will begin efforts to start developing a County Geologic Atlas. This atlas will provide information that is essential for managing groundwater and geological resources. As a result, we will be able to better protect and improve resources within our County. As part of the effort for Le Sueur County to complete the County Geologic Atlas, we need to confirm all unverified well locations within the County. Our records indicate your property may contain an unverified well location. Your property is scheduled to be inspected within the following timeframe:

While on site, County staff will only need to collect information regarding the location of the well using GPS coordinates. Most site visits will take approximately 5-10 minutes to complete. County staff will be driving unmarked county vehicles and will have a photo I.D. badge.

If you would like to set up an appointment or have any questions, please contact our office at 507-357-8538. If your property is rented, please notify your tenants of the upcoming site visit.

**Please be advised, this will be your only notification.**

Aaron Stubbs  
Environmental Services Director



Holly Bushman  
Environmental Resources Specialist  
(Primary Contact)



**Environmental Services Department**

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# Le Sueur County Comprehensive Land Use Plan Update



## VISION 2050

Le Sueur County

*PAVING THE WAY FOR A RESILIENT & THRIVING FUTURE IN LE SUEUR COUNTY*



**GUIDE  
GROWTH**



**ALIGN  
REGULATIONS**



**REPRESENTATIVE  
ENGAGEMENT**

**LEARN MORE & GET INVOLVED!**



**TAKE THE PUBLIC SURVEY NOW THROUGH JANUARY 26!**

Scan the QR code or visit: [bit.ly/LSVision2050](https://bit.ly/LSVision2050)  
Sign up for text updates by texting "LESUEURVISION2050" to 91896

# FY'25 Clean Water Fund Grant Recipient

## Le Sueur County receives \$542,437.50 in Clean Water Fund Grants from BWSR

Le Center, MN – The Minnesota Board of Water and Soil Resources (BWSR) approved \$9.5 million in Clean Water Fund grants at its December board meeting for projects designed to improve water quality in lakes, rivers, streams and groundwater across the state. Le Sueur County received 3 different Clean Water Fund Grants for 2025; a \$207,075 grant to create 5 Subwatershed Assessments for Clear, German/Jefferson Chain, Francis, Tetonka/Sakatah, and Volney Lake Subwatersheds, a \$154,000 grant to create a Stream Erosion Study for Unnamed Creek (761) Subwatershed, and a \$181,362.50 grant to seal a large industrial abandoned well from the Minnesota Valley Canning Company located in the City of Le Sueur. These grants are 3 of 34 awards BWSR approved this year to fund voluntary conservation projects, including those focused specifically on improving and protecting drinking water.

Le Sueur County will use the grant funding to assist with creating 5 Lake Subwatershed Assessments (SWA) that will prioritize and target where to implement projects and practices on the landscape and what type of projects and practices to use in order to reduce nutrients, especially Total Phosphorus. Each SWA will contain modeling results, summaries of landowner conversations/engagement, project locations, basic concept design, and any additional relevant information. This type of information is critical when trying to focus efforts and decide which projects will provide the greatest cost-benefit in reducing, nutrients, especially Total Phosphorus, for each Lake and its subwatershed. Le Sueur County and Le Sueur SWCD will partner on this project together.

A very similar approach will be used for the Stream Erosion Study for Unnamed Creek (761) Subwatershed located near Henderson. A Stream Erosion Study will be created in order to prioritize and target where to implement projects and practices on the landscape in order to reduce sediment loading and to create a more accurate nutrient budget for sediment within this subwatershed. The study will include modeling results, a sediment nutrient budget, project locations, ranking of projects, and a series of maps and field verification photos to support where efforts should be targeted. This type of information is critical when trying to focus efforts and decide which projects will provide the greatest cost-benefit in reducing sediment within the Unnamed Creek (761) subwatershed. Le Sueur County and Le Sueur SWCD will partner on this project together.

Lastly, a large industrial abandoned well within the City of Le Sueur has been located. It is imperative to seal all wells that are abandoned as they are a public health and environmental risk to drinking water and groundwater supplies. The City of Le Sueur and Le Sueur County will partner on this project together.

“Local governments are ready to work with private landowners across Minnesota to implement projects that will make meaningful progress toward improving water quality,” said BWSR Executive Director John Jaschke. “These grants are a key component in ongoing efforts to keep our water clean and our lakes, rivers and groundwater healthy.”

BWSR awards competitive CWF grants annually. The state is shifting to a Watershed-Based Implementation Funding model, which offers consistent, noncompetitive funding to planning partnerships with approved watershed management plans. This helps partnerships focus on the highest priority projects within a specific watershed. Competitive CWF grants remain an important part of conservation delivery despite this shift, offering funding to individual districts for project implementation.

The anticipated start date to begin work on each grant is in the Spring of 2025. Applicants wanting to learn more should contact: Holly Bushman-Water Resources Manager at [holly.bushman@lesueurcounty.gov](mailto:holly.bushman@lesueurcounty.gov) or Michael Schultz-SWCD District Manager at [michael.schultz@lesueurswcd.gov](mailto:michael.schultz@lesueurswcd.gov).

### About the Clean Water Fund

Minnesota voters approved the Clean Water, Land and Legacy Amendment in 2008 to protect, enhance, and restore wetlands, prairies, forests, and fish, game, and wildlife habitat; to preserve arts and cultural heritage; to support parks and trails; and to protect, enhance, and restore lakes, rivers, streams, and groundwater. The Clean Water Fund receives 33% of the sales tax revenue generated by the Legacy Amendment. More information about the Clean Water Fund is [available here](#).

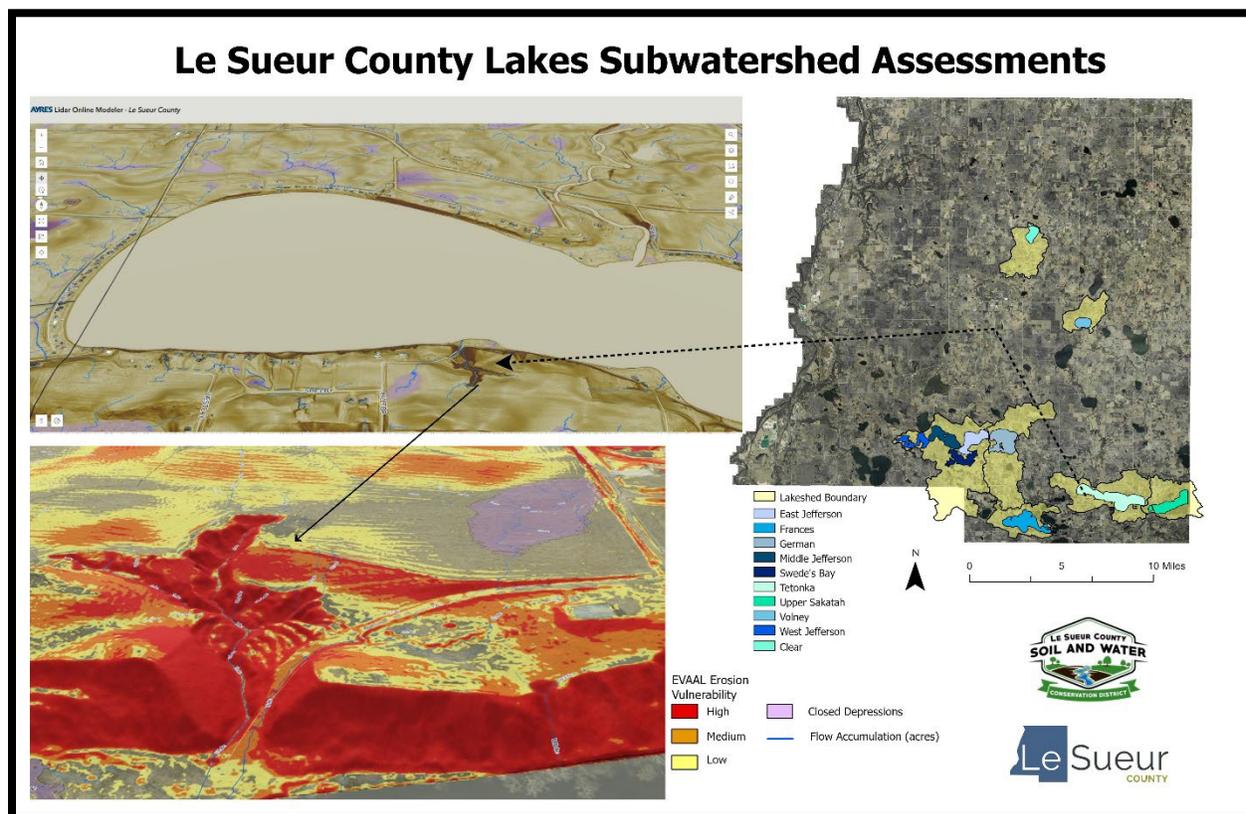


Figure 7. Grant Application Project Image-SWAs. Photo Credit: Le Sueur County

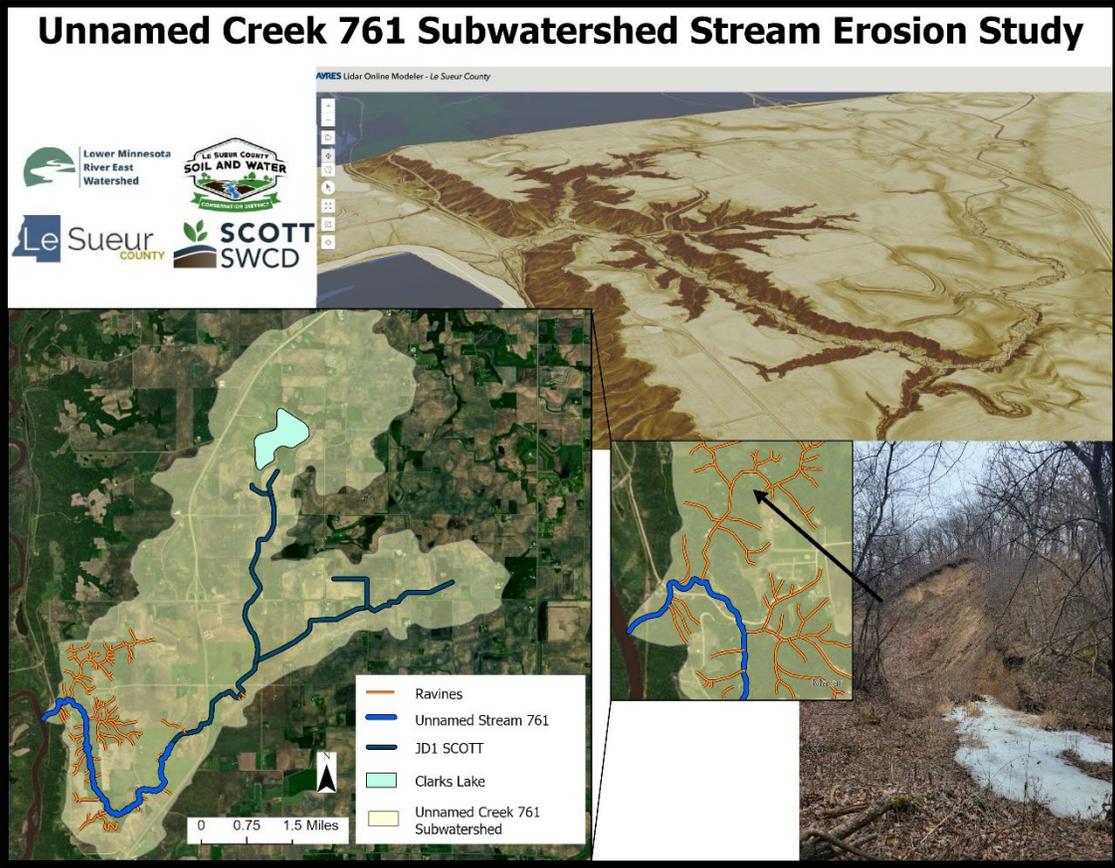


Figure 8. Grant Application Project Image Stream Erosion Study. Photo Credit: Le Sueur County

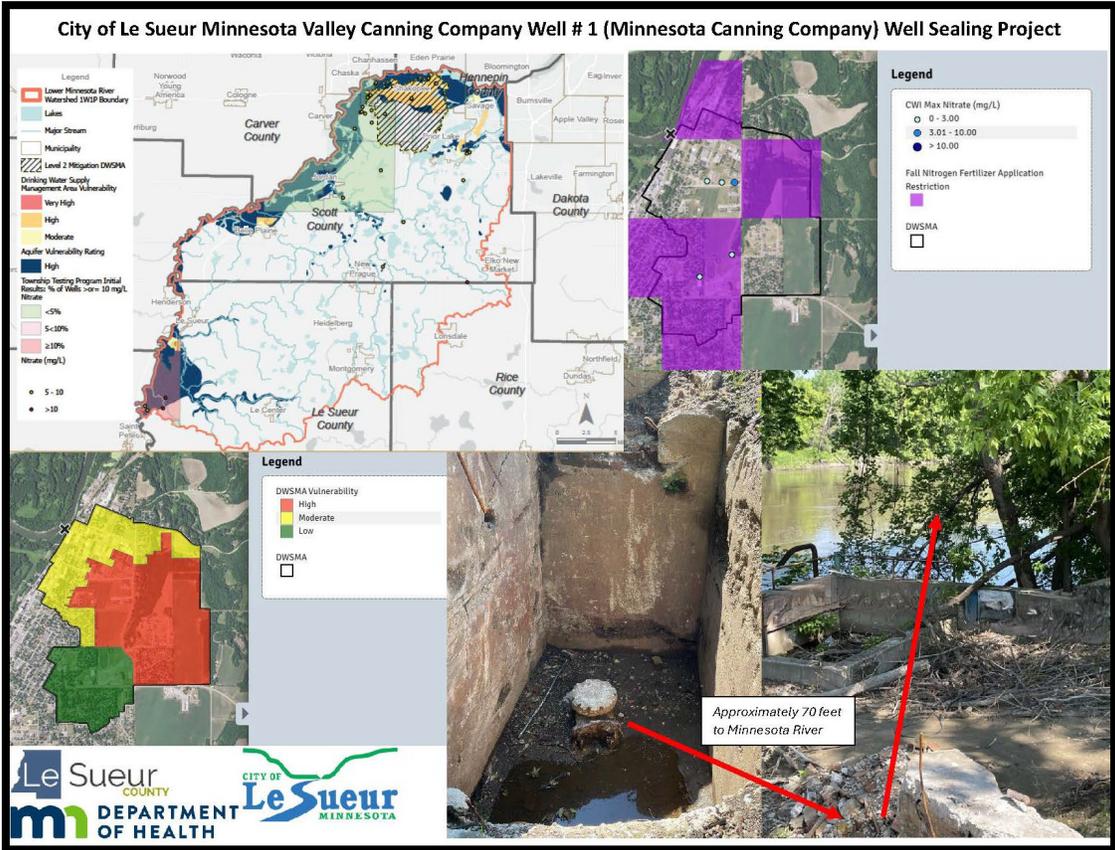


Figure 9. Grant Application Project Image Industrial Well Sealing. Photo Credit: Le Sueur County

# Minnesota Native Plant

## Fireweed (*Chamaenerion angustifolium*)

Fireweed, is a perennial, that is a part of the Onagraceae (Evening Primrose) family.

It grows anywhere from 3 to 7 feet in height. The leaves are narrow (resemble willow leaves) and are arranged alternate on the stem. Additionally, the leaves are approximately 2-8 inches long, have a white midrib, and are hairless. The inflorescence (flower head) is comprised of a flower spike that contains numerous vibrant flowers that range in color from pink to magenta. Fireweed blooms from June-August. Additionally, this species contains fruit which is a slender pink/purple upright pod. When the pod splits open, the small brown seed has large fluffy white hairs that allow them to disperse into the wind.

This plant prefers moist to mesic soil that is high in nutrients and organic matter. Fireweed favors partial shady areas and does not tolerate hot conditions. You'll find this species thriving in

a variety of moist areas such as bogs, meadows, woodland edges, and shorelines.

Typically, Fireweed is found in colder climates and is more commonly seen in northern Minnesota.

Ecologically, Fireweed is a really important species. It is a great nectar source for pollinators. Furthermore, Fireweed will be one of the first species to recolonize an area that has been disturbed by fire or human activities. Their rhizomatous roots make them aggressive when trying to compete with other species. This is especially important in disturbed sites to outcompete nonnative species.



Figure 10. Fireweed Showy Flower Head. Photo Credit: Holly Bushman

**Figure 11. Fireweed Plant in full bloom.** *Photo Credit: Holly Bushman*



**Figure 12. Fireweed Leaf arrangement and Fruit Pods.** *Photo Credit: Holly Bushman*

***Fun Fact:***

Fireweed has been used for ornamental, medicinal, and culinary purposes!

# Non-Native Plant

## Japanese Barberry (*Berberis thunbergii*)



**Figure 13. Japanese Barberry Flower.** Photo Credit: UMN Extension-Erin O'Connell

Japanese Barberry is a perennial woody species that is a part of the Berberidaceae, (Barberry) family. This species is native to Asia and was brought into the United States in the late 1800s as an ornamental plant due to its foliage colors and resiliency to harsh conditions.

Japanese Barberry grows any from 3 to 6 feet tall. The leaves on this species are round, toothless, and quite small. The leaves are arranged in clusters and will change colors in the fall ranging from red to orange. Lastly, the leaves are located in clusters above a sharp spin. The cluster of leaves and spins are distributed throughout each branch that makes up one plant.

The inflorescence (flower head) contains stalk flowers that can contain one single flower or as a cluster (anywhere from 2-4 flowers with one cluster). The flower is pale yellow in color and blooms in May. Japanese Barberry contains fruit

which is egg shaped and bright red in color. The fruit does not mature until August and can stay on the shrub throughout the winter season.

This species can thrive in a variety of different conditions and soil types; however, it prefers well drained soils and partial sun to full sun areas. You'll find Japanese Barberry thriving within wooded areas and thickets.

This is an aggressive invasive species that outcompetes native vegetation and can create dense mats of thorny shrubs that become a monoculture. Furthermore, this species can change the pH in the soil making conditions less desirable for other species. Controlling this species is important in maintain biodiveristy within a wooded area. The most effective treatment option to control this species is mechanical removal (cutting/mowing/handpulling) and then applying a chemical treatment on the freshly cut areas.



**Figure 14. Japanese Barberry Fruit.** Photo Credit: MN Department of Agriculture



**Figure 15. Dense mat of Japanese Barberry in Wooded Area.** Photo Credit: MN Department of Agriculture

### *Interesting Fact:*

Japanese Barberry creates ideal conditions for ticks! Ticks prefer humid microclimates and thrive in them!

### *Why this is important?*

Many ticks carry tick-borne illnesses such as Lyme Disease, which can have detrimental consequences if left untreated.



# Contact Information

## Environmental Services Department

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Water Resources Planner-Trevor Rudenick

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## Le Sueur County Soil & Water Conservation District (SWCD)

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## Natural Resource Conservation Service (NRCS)

Vacant-District Conservationist

## Minnesota Department of Natural Resources (DNR)

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To see which DNR staff is the Area Hydrologist for your region, please click on the following link:

[https://files.dnr.state.mn.us/waters/area\\_hydros.pdf](https://files.dnr.state.mn.us/waters/area_hydros.pdf)

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