



**2023**  
**Root River**  
**Soil and Water**  
**Conservation District**  
**Annual Report**



*2023 Root River SWCD  
Conservationist of the Year  
Wayne & Elsie Olson Family*

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## **INTRODUCTION**

This annual report is to assist and present an overview of the accomplishments and activities of the Root River Soil and Water Conservation District in a manner consistent to the District's policies and long-range goals.

## **MISSION STATEMENT**

The Root River Soil and Water Conservation District's mission is to provide assistance to cooperators in managing the natural resources on their land. In addition, the district will continue to educate people on local conservation issues and concerns, in order to fortify and perpetuate the conservation movement.

## **AUTHORITY**

Minnesota Statutes Chapter 103C.201 authorized the formation of the Root River SWCD.

Minnesota Statutes Chapter 103C.005, soil and water conservation policy states:

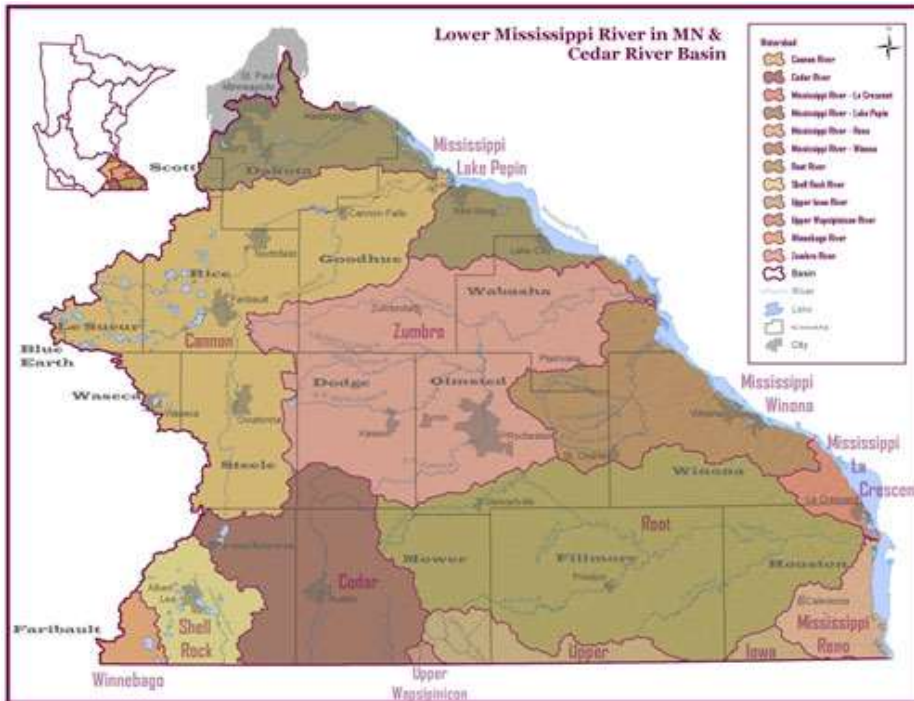
*“Maintaining and enhancing the quality of soil and water for the environmental and economic benefits they produce, preventing degradation, and restoring degraded soil and water resources of this state contribute greatly to the health, safety, economic well-being, and general welfare of this state and its citizens. Land occupiers have the responsibility to implement practices that conserve the soil and water resources of the state. Soil and water conservation measures implemented on private lands in this state provide benefits to the general public by reducing erosion, sedimentation, siltation, water pollution, and damages caused by floods. The soil and water conservation policy of the state is to encourage land occupiers to conserve soil, water, and the natural resources they support through the implementation of practices that: control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources; ensure continued soil productivity; protect water quality; prevent impairment of dams and reservoirs; reduce damages caused by floods; preserve wildlife; protect the tax base; and protect public lands and waters.”*

In order to assist land users, the Root River SWCD will carry out all district programs in accordance with the powers and duties outline in Minnesota Statutes Chapter 103C.331.

## ORGANIZATIONAL BOUNDARIES

Houston County lies in the extreme southeastern corner of Minnesota and consists of 17 townships. The Mississippi River on the east and six other counties bound it:

- Winona County, Minnesota (north)
- La Crosse County, Wisconsin (northeast)
- Vernon County, Wisconsin (southeast)
- Allamakee County, Iowa (south)
- Winneshiek County, Iowa (southwest)
- Fillmore County, Minnesota (west)

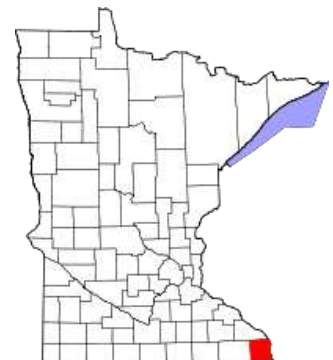


## COUNTY LAND DESCRIPTION

The Root River flows through the northern half of the county. There are four small watersheds that flow directly into the Mississippi River and a portion along the south and southwest flows into the Upper Iowa Watershed. The county is in the Driftless Zone, marked by the absence of glacial drift and presence of bedrock cut by streams into steep hills. The topography of the county is very irregular with elevation extremes of over 600 feet. Many of the hilltops are

more than 400 feet above the flood plain and are within a fraction of a mile in distance. According to the U.S. Census Bureau, the county has a total area of 569 square miles with 552 square miles of land and 17 square miles or 2.9% of water. The plateau that surrounds Caledonia, the county seat, includes flat, fertile farmland and hilly, verdant pastureland.

Blue, Hayshore, Lawrence and Target lakes are located within the Upper Mississippi River National Wildlife and Fish Refuge, a national protection area in the County.





Houston County makes up 26.2% or 276,890 acres of the Root River Watershed and approximately 117,000 acres of the Mississippi River Reno watershed. These areas are rich in habitat for game and non-game wildlife species and in aesthetic beauty. Bisected by cold-water trout streams the long valleys are rimmed with dry prairies and hardwood hills. Unlike any other part of the state, much of the watershed and the greater Mississippi River Blufflands have been largely untouched by glaciers for 500,000 years. Because of this unique geology, the Blufflands are home to diverse habitats. No other region in the state demonstrates this diversity and uniqueness of habitats. While much of the region has been converted to cropland, pasture and rural development, many bluffs and valleys of the watershed are still home to high quality forests, cliffs, oak savannas, and prairies, including 40 different native plant community types mapped by the Minnesota Biological Survey (MBS) covering nearly 38,000 acres. The Root River watershed represents an extraordinary priority:

- There are 120 species of federally or state-listed rare plants and animals in the watershed, many of them concentrated in the 353 sites of biodiversity significance mapped in the watershed by MBS. The U.S. Forest Service has also identified the Root River as having a high priority among Upper Mississippi River watersheds.

## ORGANIZATIONAL HISTORY

The Root River SWCD was organized in 1939, encompassing all of Houston County and the eastern portion of Fillmore County. In the 1960s, the boundaries were revised, with the Fillmore County portion of the District merging with West Fillmore SWCD and leaving Root River SWCD with our own present boundary.

The district formed because people living in the valleys were concerned about flooding. In addition, upland users had problems with erosion causing ditches to form which resulted in lower yields on cropland. These problems and concerns caused incomes to fall threatening survival of the family farm unit. In many instances land users accepted conservation practices on the land as an alternative to abandoning the farm. The results of these practices were recognized and adopted by their neighbors. Since the district formed, conservation practices have been installed on over 90% of the farms although some land users have only treated a portion of their land.

With land ownership changes, not all are familiar with the importance of soil conservation and water quality. It is vital that we continue to educate landowners on the importance of erosion control, identifying and treating problem areas and maintaining existing BMPs, and soil health.

The district has a critical role in maintaining current practices, promoting education and utilizing available resources to put additional practices on the ground.





**Root River SWCD Staff 2023**

Dave Walter – District Manager

Dan Wermager – Technician & Conservation Planner

Jean Meiners - Technician

Janice Messner – Administrative Assistant

**Joint Powers Board Staff 2023**

Jason Rochester – Engineering Technician

**NRCS Staff 2023**

Ryan Hytry – District Conservationist

Machele Bollman – Soil Conservation Technician

**Pheasants Forever Staff 2023**

TJ Boettcher – Farm Bill Biologist



**District #2 – *Joe Driscoll***  
Brownsville Township & Village  
Crooked Creek Township  
Jefferson Township  
*Term Expires December 31, 2026*



**District #1 – *Jerry Welke***  
La Crescent Township & Village  
Hokah Township & Village  
Mound Prairie Township  
Union Township  
*Term Expires December 31, 2026*



**District #4 – *Glenn Kruse***  
Caledonia Township & Village  
Eitzen Village  
Mayville Township  
Winnebago Township  
*Term Expires December 31, 2024*



**District #5 – *Matt Feldmeier***  
Houston Township & Village  
Money Creek Township  
Sheldon Township  
Yucatan Township  
*Term Expires December 31, 2024*

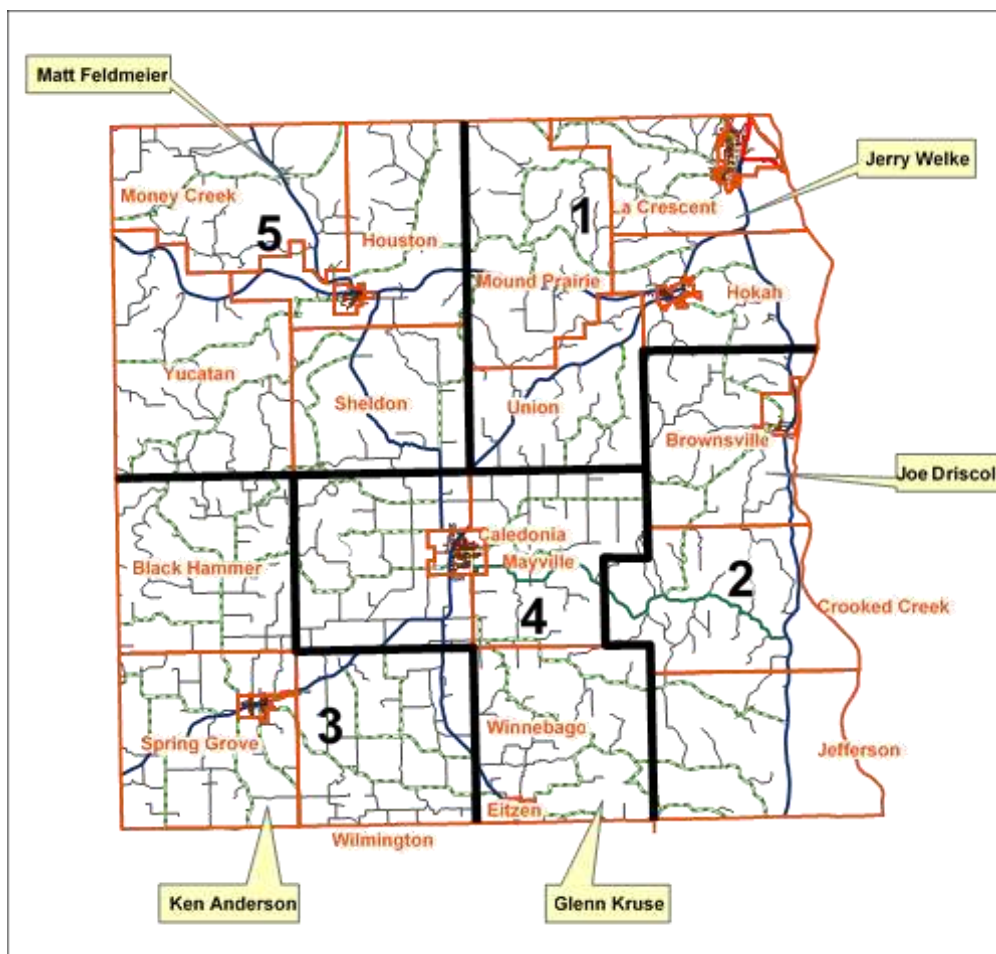
**ROOT RIVER  
SOIL AND  
WATER  
CONSERVATION  
DISTRICT  
SUPERVISORS**



**District #3 – *Ken Anderson***  
Black Hammer Township  
Spring Grove Township & Village  
Wilmington Township  
*Term Expires December 31, 2024*



## SUPERVISORS NOMINATION DISTRICT



Root River Soil & Water Conservation District Supervisors are supervisors elected at large in accordance to Minnesota Statute 103C.311 subd. 1. This statute provides for the establishment of nominating districts that determine who will be on the general election ballot for vote by the general electorate of the county. The nominating districts have historically reflected the natural resource diversity of the county. They have not been focused on the distribution of population, but on distribution of supervisors geographically across the county so board members have a better chance at being physically closer to and personally aware of the natural resource issues across the county. All eligible voters within the county may vote for all SWCD supervisors.

Root River's district supervisors serve a four-year term with no limit to the number of consecutive terms they serve.

## *District Accomplishments & Grants Obtained for 2023*

<b>Practice/Inspections</b>	<b>Number of Practices</b>	<b>Amount</b>	<b>Comprehensive Plan Implementation Schedule</b>	<b>Root River 1W1P Implementation Schedule Houston County</b>
Brush Management	7	146.45 contracted acres	Goal 2 – B.7	SUST – 1.4 LF – 5.3
Building Sites/Erosion Control Plan		13 Plans/Sites	Goal 3 – A.1	SW – 3.8, 6.7, 6.8 W1 – 7.1
MN Buffer Law Checks	36 landowners	62 parcels	Goal 2 – C.1, C.2	LF – 1.3 SW – 3.5, 5.1, 6.1 SUST – 4.1; W1 – 2.1
Conservation Plans		9 plans	Goal 2 – A.2, A.3, B.6, B.8; Goal 3 – D.1	SC – 2.1, 2.4
Contour Buffer Strip	4	111 acres	Goal 2 – A.2, B.2, B.3, B.9	GW – 2.1, 3.1, 3.2 SW – 3.1, 3.4, 3.5, 4.1, 6.1 SW - 6.3, 8.6; SUST – 2.4
Cost Share Site Inspections		165 inspections		SC – 2.5
Cover Crop	8	435.687 contracted acres	Goal 2 – B.1, B.2, B.3, B.9	GW – 1.9, 2.1, 3.1, 3.2 SW – 3.2, 3.4, 3.5, 4.2, 5.1 SW - 5.3, 6.1, 6.3 SUST – 2.4, 2.8
Critical Area Planting	2	1.1 acres	Goal 2 – A.1, A.2, B.2, B.3, B.9	SW – 3.3, 3.4, 3.5, 6.1, 8.6 SUST – 2.8
Diversion	1	522 linear feet	Goal 2 – B.2, B.3	SW – 3.3, 3.4, 3.5, 6.1 SUST – 2.8
Grade Stabilization Structure with a Diversion	1	1	Goal 2 – B.2, B.3, B.9	SW – 1.4, 3.3, 3.4, 3.5, 3.6 SW – 4.7, 5.2, 6.1, 6.2, 7.2, 8.4 SW - 8.6; SUST – 2.8
Grade Stabilization Structure	1	1	Goal 2 – B.2, B.3, B.9	SW – 1.4, 3.3, 3.4, 3.5, 3.6 SW – 4.7, 5.2, 6.2, 7.2, 8.4 SW - 8.6; SUST – 2.8
Grassed or Lined Waterway	8	2.08 acres	Goal 2 – A.1, A.2, A.3, B.2, B.3, B.9	SW – 3.3, 3.4, 3.5, 4.1, 6.1 SW - 7.1; SUST – 2.8
Pond Clean-Outs	11		Goal 2 – B.2, B.3, B.9	SW – 1.4, 3.5, 3.6, 4.7, 5.2 SW - 6.2, 7.2
Push-Up Ponds	3		Goal 2 – B.2, B.3, B.9 Goal 3 – A.1	SW – 1.4, 3.3, 3.4, 3.5, 3.6 SW – 4.7, 5.2, 6.2, 7.2, 8.4 SW - 8.6; SUST – 2.8
RIM Site Inspections	23	735.7 acres	Goal 2 – A.1	SW – 10.2; LF – 4.2, 4.4 SUST – 1.4, 1.5

Sinkhole Treatment with Critical Area Planting	1		Goal 2 – A.1, A.2, B.2, B.3, B.9	GW – 1.1, 1.7, 1.9, 3.2 GW - 5.5, 6.1; SW – 3.3, 3.4, 3.5, 6.1 SUST – 2.8
Streambank & Shoreline Protection	1	136.7 linear feet	Goal 2 – B.2	SW – 1.8, 2.4, 3.7, 7.4
Terrace	7	1.6 acres	Goal 2 - B.2, B.3, B.9	SW – 3.5, 6.1 SUST – 2.8
Waste Storage Facility	1	1	Goal 1 – A.1 Goal 2 –B.2, B.3	GW – 1.3, 1.5, 2.3, 2.4 SW – 4.1, 4.3, 4.4, 4.6, 4.7 SW – 5.4, 5.6, 5.7, 6.4, SW – 6.6, 6.7, 7.3 SUST – 2.3, 2.8
News Articles & News Letter Articles		19 Articles	Goal 1 – C.5 Goal 2 – A1, B.9	SUST – 2.7

- Houston County appropriated \$250,000 in ARPA (American Rescue Plan Act) funds to the Root River SWCD in 2022. During 2023, a total of \$1,617.24 was disbursed to four landowners to provide financial assistance with their cost share projects. Three of the projects received \$200 each to offset a flat rate payment to landowners installing a push-up pond. The remaining project, sinkhole repair with a critical area planting, was funded using various grants. The ARPA dollars allowed the landowner to receive 90% cost share on the project. The landowner’s responsibility was 10% of the eligible expenses. Funds are allocated for various projects, which will likely be constructed in 2024.
- Houston County appropriated \$22,612 in Aquatic Invasive Species funds to the Root River SWCD to promote education of aquatic invasive species in Houston County. Throughout the year, staff dedicated a total of 251.75 hours to this program, which is 12.06% of one FTE. They performed approximately 460 inspections covering five access landings and ten water bodies. Their inspections found 100% of the watercrafts arrived with drain plugs out. Houston County has been quite fortunate with a low percentage of invasive species in our area’s trout streams.

Staying engaged with the community is also a focus of this program. Staff educates the public through means of products provided by the MN DNR Invasive Species Program. Recipients of the materials find them very informative and are appreciative of the photos and descriptions of various invasive species. Typically, staff operate a booth during the Houston County Fair highlighting the Aquatic Invasive



Species program along with other programs and services the SWCD offers. The SWCD also hosts an all-encompassing countywide Sixth Grade Environmental Day. This event features a session dedicated specifically to aquatic invasive species.



- The Root River SWCD technical staff assists the Houston County Zoning Department by reviewing building site applications, doing on-site visits and provide technical assistance. In 2023, staff reviewed 13 building site applications and reviewed erosion control plans.
- Houston County Water Plan Committee - The SWCD continues to provide administrative leadership for the county Water Plan Committee. In addition to leading the local meetings, staff participate in Root River One Watershed One Plan planning work group, advisory and policy committee meetings, various Watershed Restoration and Protection Strategy (WRAPS) meetings and Mississippi River Winona/La Crescent One Watershed One Plan planning work group, advisory and policy committee meetings. An SWCD board supervisor and a county commission are each part of the policy committee for the Root River One Watershed One Plan and the Mississippi River Winona/La Crescent One Watershed One Plan.

The Water Plan Committee also budgets for private well nitrate testing reimbursements for anyone with an infant. In 2023, one reimbursement was provided.



Houston County Water Plan offers incentive payments that partially fund the installation of push-up ponds (with or with or without a pipe) and pond clean out projects.

A dry summer and fall in 2023 kept the technical staff busy assisting landowners with their projects. Three push-up ponds and 11 pond clean out projects

were completed. Additional projects were planned but for various reasons those projects were not completed. Interest in the incentive based funding continues to increase and exceeds the funds available.



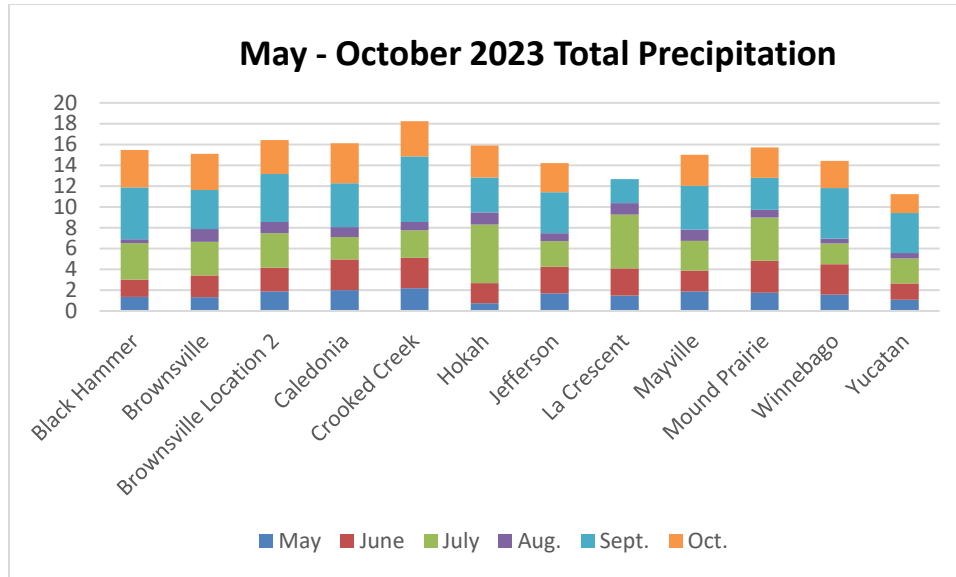
Currently, there are 13 pond clean outs and 12 push-up ponds on a wait list. Some landowners opt to move forward without the incentive payment, but benefits from the free technical assistance that staff offers.

- The SWCD assists Houston County with the Wetland Conservation Act. During 2023, the SWCD provided wetland technical assistances on 20 sites. Time was also spent on continuing education. The Root River SWCD also provides a representative to serve on the Technical Evaluation Panel (TEP). This group reviews various wetland conservation applications and mitigation requirements verifying compliance with the Wetland Conservation Act (WCA).

- In 2021, a Houston County landowner was awarded a three-year Minnesota Department of Agriculture (MDA) Soil Health grant and asked the Root River SWCD to collaborate with him. The objective of the grant is to provide a comparison of the establishment of no-till seeded alfalfa as a forage crop with conventional, minimum till seeded alfalfa. Both scenarios are seeded on former soybean and former corn ground. Monthly scissor cuttings and infiltration testing was performed



monthly from May through September in years two and three of the grant. An initial Haney test was performed in year one with a follow-up testing in year three. A Solvita test was done the second year. The project results will be published in the 2024 Greenbook by the MN Department of Agriculture.



- **Rain Monitoring Program** - This program coordinates with the Minnesota Climatological Network. Twelve volunteers throughout Houston County measure and record precipitation on a daily basis.

Of those who reported snowfall in 2023, the average snowfall for January was 12.17 inches, February 10.75 inches and March 8.93 inches. The April snowfall varied greatly from .66 inches up to as much as 10.5 inches.

Houston County’s highest rainfall totals were seen during the period of May – October in 2023. While comparing outcomes, August 2022 was the wettest month of that year averaging 6.63 inches. In 2023, August was the driest month averaging .068 inches of rainfall. It has also been noted September 2022 was the driest month of that year averaging 1.13 inches where in 2023 it was the wettest month averaging 4.12 inches.

During this period, Crooked Creek Township received the highest amount of precipitation 18.24 inches averaging 3.04 inches per month followed by Brownsville Township at 16.42 inches averaging 2.74 inches per month and Caledonia Township

with 16.11 inches averaging 2.69 inches per month. Yucatan Township had the lowest amount of precipitation only reporting 11.21 inches averaging 1.87 inches per month.

How does the rainfall averages compare to 2022? In 2023 of those reporting all 12 months, the average precipitation was 1.6 inches per month. In 2022, the average was 2.97 inches.

- Tree Program – The 2023 tree sales for conservation purposes seen a bit of a decline in total orders (66), but the amount of trees sold still totaled 5,250. The specie in highest demand for the year was white pine at 525 trees. Norway pine were also quite popular with 500 trees ordered. White spruce was a sizable contributor to the total ordered at 450 trees. Special orders, black walnut and techny arborvitae totaling 400 trees per specie held their place in the total of trees ordered in 2023. The year’s tree sales totaled \$8,477.00.



- Through a contract for services, the Root River SWCD provides administrative and technical services for the Crooked Creek Watershed. Administrative aid provides assistance with budgeting, watershed reporting, easement acquisitions, holding monthly business



meetings and a variety of other tasks. Staff provides technical assistance with scheduled maintenance and assists during dam assessments, provided by NRCS, on eight retention structures and one waterway in the Crooked Creek watershed.

Maintenance work performed in 2023 included brush removal on R-4 Heimerdinger, inlet clearing on R-3 South Fork, inlet clearing and spraying invasives on R-2 Zehner's, and seeding and fertilizing on the Klinski/Hammell structure.

- Winnebago Watershed District  
Annually county funds are allocated to the SWCD for Winnebago Watershed maintenance. No projects were funded through these maintenance dollars in 2023. The funds will be used for future maintenance projects.
- Bear Creek Watershed  
Houston County allocates \$2,000 annually to the maintenance of the Houston County sites within the Bear Creek Watershed. In 2023, Site 13 in Section 33 of Spring Grove Township served as a site for grading and shaping along with a silt sock installation and seeding. Maintenance expenses totaled \$416.61 for this project.
- Root River One Watershed, One Plan (1W1P) – This initiative combines conservation efforts for Houston, Dodge, Fillmore, Winona, Mower and Olmsted counties. Staff participate in a planning work group and policy committee meetings throughout the year. This grant offers cost share assistance funding to landowners and provides technical assistance funds for the SWCD.

In 2023, Root River 1W1P cost share fund disbursements totaled \$159,521.88 for the installation of one grade stabilization structure, 1.78 acres of grassed waterways, 1.1 acres of critical area plantings, 522 linear feet of diversion, 136.7 linear feet of Streambank & Shoreline Protection and 272 acres of cover crops. It also funded a small portion of a waste storage facility project. Funds are allocated for a waste facility closure project that will be completed in 2024.

## Streambank Restoration Project



Before Photo



Gabion baskets being placed





Excavating ahead of placing gabion baskets



Placing rock



Larger rock is placed to anchor the smaller rock



Floor of the ravine is completed



Larger rock is being placed for the side slope



Geo textile blanket is placed over the large side slope rock



Clay fill being compacted on top of the geo textile blanket



Earth fill is compacted over the clay fill



Final shaping is in progress



Final shaping is completed



Mulch is being applied



**Mulching is completed**



**Mulching is completed**



**Grass has emerged  
A successful project!**

Each county has priority focus areas. Houston County had one priority area, South Fork of the Root River, with the current year's round of funding. Technical assistance funds in this priority area totaled \$11,439.76 with 208.5 hours of assistance in 2023.

Five landowners were the recipients of this assistance. This resulted in two landowners installing a project in 2023, which also received cost share assistance funding through this grant.

This grant also offers funding for technical assistance to landowners that may not be in the priority areas. In 2023, five landowners received technical assistance. Staff dedicated 148.4566 hours for the assistance totaling \$9,607.89 in grant funds. This

resulted in two landowners installing a project in 2023, which also received cost share assistance funding through this grant.

Root River SWCD were recipients of ear tagged Project Development funds from this grant. In 2023, \$13,963.44 in funds supported 55.75 hours of Outreach to landowners in the Beaver Creek watershed totaling \$3,187.76, mileage reimbursement of \$320.30 and 194 hours of technical assistance to 17 landowners totaling \$10,464.38.

Work with one landowner moved a cover crop project to completion. Several projects are in the design stage. They include a diversion with a grassed waterway, eight grade stabilization structures, one grassed waterway, and one streambank project.

Site visits were also done for a possible brush management project, conservation cover project, landing improvements, and a streambank project.

- Buffer Law Grant – An appropriation of \$17,000 to the SWCD offers the opportunity to provide technical assistance support to landowners with the maintenance and re-implementation of required buffers. The 2017 state law establishes new perennial vegetated buffers that have an average width of 50 feet with a minimum of 30 feet along rivers, streams and ditches classified as public waters. In 2023, technical assistance consisted of flagging buffers for landowners, performing 19 spot checks on 37 parcels of non-cost shared buffers, actively maintaining a spreadsheet and BuffCat updates, and grant reporting.

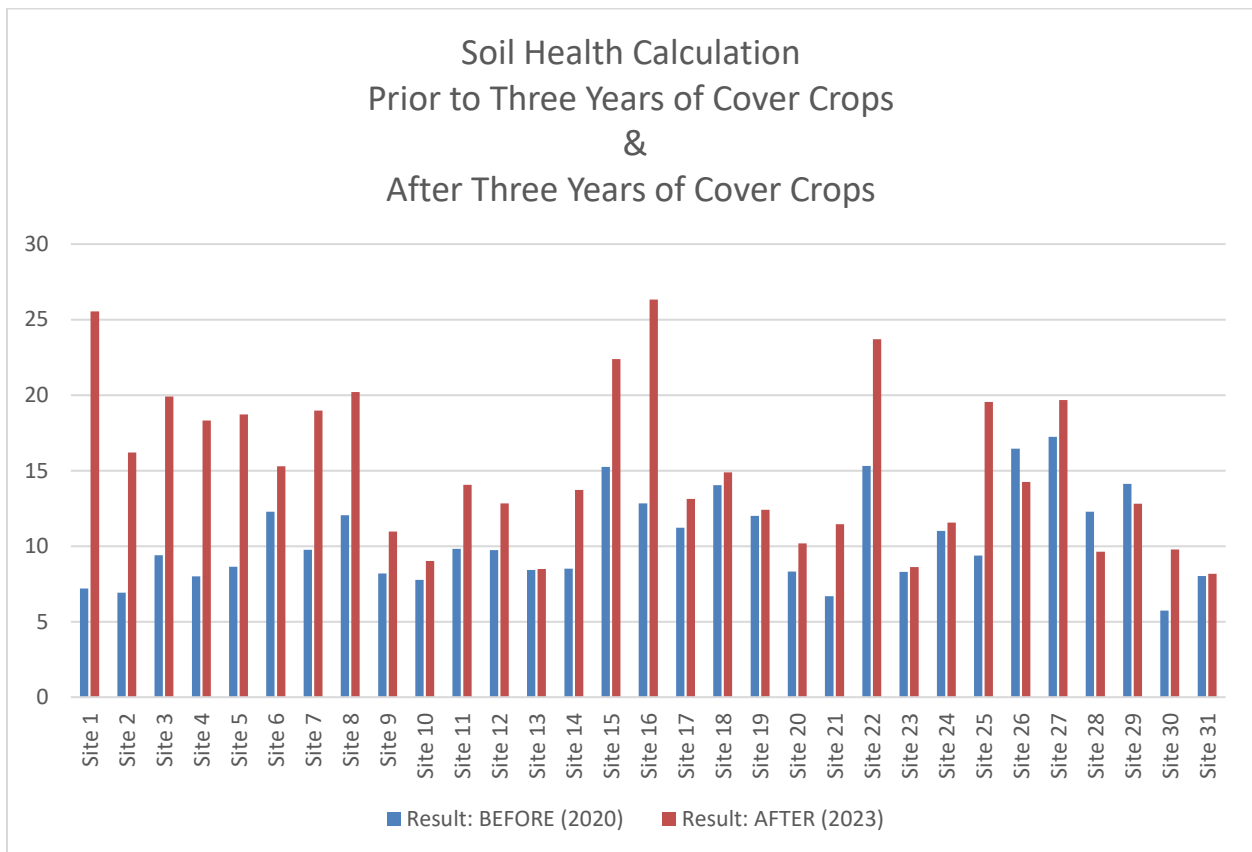


- Cover Crop Demonstration Grant – This grant provides technical and cost share assistance to producers to integrate cover crops for three consecutive years. Its targeted focus area is the Drinking Water Supply Management Areas (DWSMA), as well as townships where well water tested high in nitrates through the MDA Township Nitrogen Testing Program.

This grant provides financial incentives for producers to seed cover crop using a no-till method. This can include no tilling a fall cover crop or use of a no-till inter-seeder for planting cover crop into standing corn.

The grant also allows for initiating soil testing procedures with participating producers. Soil testing is initiated to determine overall soil health. The testing procedure being used is “Haney Test.” Initial samples were sent to a lab and tested for soil health parameters in 2020. A follow up sampling was conducted in year three, 2023, of the project. A comparison of the formulated data provides producers an opportunity to see the benefits of soil health principles.

Below is a comparison of the results from implementing cover crops for three years. It reveals the soil has a higher composition of organic matter and microbial activity.



Staff conducted year three spot checks on twenty-two sites, provided any additional technical assistance that producers needed, collected soil samples and reported findings to each producer.

- Easement Delivery Grant - Technical staff performed 23 BWSR appointed spot-checks on landowners’ perpetual easements through the Reinvest in Minnesota Program (RIM). In addition to the 735.7 acres of spot checks, staff identified and worked with landowners to establish any needed ownership changes and addressed questions on

permissible activities on easement areas. The spot checks also brought to light three easement project amendments to bring two of the easements back in to compliance.

- Habitat Enforcement Landscape Pilot Grant (HELP) – This grant provides \$25,000 in cost share funding and technical assistance to implement habitat enhancements. The cost-share grant program is possible through an appropriation from the Environment and Natural Resources Trust Fund (ENRTF).



It focuses on restoring and enhancing strategically located, diverse native habitat across Minnesota to benefit populations of pollinators and beneficial insects as well as overall plant and animal diversity.

During 2023, technical staff provided designs for three landowners. Two are moving forward with projects. Staff also inventoried one additional location. More locations will be pursued in 2024.



- SE MN Volunteer Nitrate Monitoring Network is a continued partnership that moved from the SE MN Water Resources Board to Olmsted County in 2020. As the county well network coordinator, we maintain an up-to-date database of well locations and well owner contact information for the 61 volunteers participating in the study. We also recruit volunteers for areas where the previous volunteer has requested to terminate their participation. The SWCD works with a certified lab, provides them volunteer participants' information, and serves as a local contact for the volunteer participants.

The 2023 results revealed 46 samples were received. With <10 mg/L being an acceptable level of nitrates, seven samples showed nitrate levels >10 mg/L. The location of these sites include two in Mound Prairie Township, one in Caledonia, Union, Winnebago, Black Hammer and Spring Grove townships.

- Soil Health Cost Share Grant – This noncompetitive grant provides cost share dollars for practices focused on soil health. “Soil Health” is defined in MS 103C.101, Subd. 10a as the continued capacity of soil to function as a vital living system that sustains plants, animals, and humans. Indicators of soil health include water infiltration capacity; organic matter content; water holding capacity; biological capacity to break down plant residue and other substances and to maintain soil aggregation; nutrient sequestration and cycling capacity; carbon sequestration; and soil resistance.

Eligible practices may include:

- |                                 |  |
|---------------------------------|--|
| Alley Cropping 311              | Prescribed Grazing 528                       |
| Conservation Cover 327          | Residue and Tillage Management (No-till) 329 |
| Contour Buffer Strips 332       | Riparian Forest Buffer 391                   |
| Cover Crop 340                  | Silvopasture 381                             |
| Critical Area Planting 342      | Tree and Shrub Establishment 612             |
| Field Border 386                | Windbreak/Shelterbelt Establishment 380      |
| Filter Strip 393                | Windbreak/Shelterbelt Restoration 650        |
| Forage and Biomass Planting 512 |  |
| Forest Stand Improvement 666    | Multi-story Cropping 379                     |

The cost share dollars assisted four landowners. A one-year contract with single specie cover crop covered 48.867 acres. Two three-year contracts with single specie covered 65 acres and one three-year contract with multi specie cover crop covered 50 acres, which rounded out the \$14,175 of cost share. The nitrogen savings per year is 1,473 pounds.



- BWSR State Cost Share –State cost share is available to landowners/land occupiers at a rate of 75% cost share. When federal funds are added to a project, the cost share rate increases to 90%. In 2023 state cost share funded one grade stabilization structure and seven terraces. It also partially funded a sinkhole treatment with a critical area planting.

- Total cost share dollars dedicated to these projects total \$6,613.20. Technical and administrative expenses totaled \$1,343.88.



- Mississippi River Winona La Crescent One Watershed, One Plan (WinLaC 1W1P) – A One Watershed One Plan Planning Grant provides funding and assistance for the development of a multi-jurisdictional, watershed-scale water plan, with funding provided through a competitive process. Eligible activities under this grant include staff time used in preparing for policy or advisory committees, coordinating meetings, and administration of the grant. The costs for hosting public and technical meetings, such as facility rental, supplies, reasonable food expenditures, and meeting notice fees, are eligible expenditures under this grant. Activities and expenditures that are not reimbursable under this grant, but may be used as in-kind, include staff time at meetings or expenses and per diems of policy committee members.

Root River SWCD acts as the fiscal agent for this grant. Duties include tracking and paying all bills affiliated with creating the policy, public hearings and staff time. In 2023, an approval was granted for the WinLaC 1W1P Comprehensive Watershed Management Plan. The plan can be viewed at

<https://storymaps.arcgis.com/stories/782a639b342643adabfe6358e030e78c>





**WinLaC**  
Partnership  
— 1W1P —



With the approval, it allows us to move forward with implementing projects. Watershed-based implementation funding (WBIF) is an alternative to the traditional project-by-project competitive process often used to fund water quality improvement projects. Partnerships operating under an approved Comprehensive Watershed Management Plan submit funding requests based on their prioritized plan activities. This funding allows collaborating local governments to pursue timely and effective solutions based on a watershed's highest priority needs.

Root River SWCD (Houston County) has a very small portion of land in this watershed. Our focus area is Pine Creek. To date in Houston County one project, urban rain garden, is underway.

- Local Capacity Grants - This non-competitive Clean Water Fund grant invests in building the capacity of local soil and water conservation districts. The grant targets four resource concern areas—Soil Erosion, Riparian Zone Management, Water Storage and Treatment, and Excess Nutrients—and supports increased capacity by funding expenses in the following categories: Staffing, Cost Share/Incentives, Technology/Capital Equipment, and Operations.

In 2023, Local Capacity grant funding provided an overall total of \$150,154.65 in funding assistance for the Root River SWCD. Following is a breakdown of the usage of funds.

- ❖ Administrative \$4,331.74 was spent to carry out the following administrative tasks: prepare and record site inspections; prepare and submit grant work plans; prepare cost share applications, amendment requests, approval letters; process cost share bills and payments; maintain all cost share documentation electronically and in paper format; maintain allocations and disbursements of cost share funds; record all grant activities in eLink.
- ❖ Trainings \$9,676.12 ~ 163.75 hours were committed to the following trainings/workshops/webinars:  
*Trainings – Section 508 Ag Learn; Prairie Restoration; RIM; Security Awareness; Dendrology 101; Tree ID & Timber; eLink; Native Grasses; Vegetation Establishment; Work Place Violence; Cover Crop continuing education and BWSR trainings.*

- ❖ Administrative mileage reimbursement was \$235.96 totaling 506 miles.
- ❖ Local Capacity Cost Share – BMPs  
Seven landowners received incentive payments totaling \$11,850 for their brush management practices. Together they treated 73.225 acres.



Brush Management project  
Treated buckthorn

- ❖ Technical Assistance - \$127,775.55 for a combined total of 2,244.6313 hours. Overall, 100 landowners received technical assistance ranging from I & E to design and construction of projects. Some landowners had multiple BMPs.

Work consisted of 160 hours of cover crop, brush management, grassed waterway and flood control structure spot checks on projects completed in prior years.

In addition to the spot checks, funds provided technical assistance to:

<u>Land-owners</u>	<u>Project</u>
2	Waste Storage Facilities (313)
16	Brush Management (314)
2	Conservation Cover (327)
1	Conservation Crop Rotation (328)
13	Cover Crops (340)
4	Critical Area Planting (342)
1	Waste Storage Closure (360)
2	Diversions (362)
4	Roofs & Covers (367)
1	Windbreak/Shelterbelt (380)

17	Grade Stabilization Structure (410)
1	Grade Stabilization Structure and Diversion (410/362)
6	Grade Stabilization Structure and Grassed Waterway (410/412)
13	Grassed Waterway (412)
1	Grassed Waterway and Diversion (412/362)
1	Grassed Waterway and Contour Strips (412/585)
1	Grassed Waterway and Subsurface Drain (412/606)
2	Livestock Pipeline (516)
1	Sinkhole (527)
1	Sinkhole with a Grassed Waterway (527/412)
1	Prescribed Grazing (528)
9	Streambank & Shoreline Protection (580)
9	Contour Line & Contour Strips/Strip-cropping (585)
1	Terrace (600)
1	Water & Sediment Control Basin (638)

From the above listed technical assistance 39 BMPs were completed in 2023, six are partially complete and will finish in 2024, six are slated for 2024 completion and four cancelled their projects. In addition, 33 landowners received an I & E site visit with no further action and this time. Thirty-two landowners have a project in the planning/design phase.



- ❖ Technical mileage reimbursements were \$1,987.07 totaling 3,633 miles.
- ❖ RIM - \$4,295.49 Funds were used for expenses to update RIM conservation plans and ownership changes. This includes technical and administrative time, mileage and fees to obtain updated deed information.

- TSA7 Feedlot Water Quality Improvements Grant - Minnesota Board of Water and Soil Resources (BWSR) provides financial assistance for feedlot related projects in the eleven Soil and Water Conservation Districts in the Southeast SWCD Technical Support JPB (TSA7). The grant helps fill a funding gap needed for livestock waste management, help meet local and state water quality objectives and promote strong local partnerships in southeastern Minnesota.

In 2023 a Houston County landowner was a recipient of these grant funds that financially assisted with the installation of a Waste Storage Facility. Additional financial assistance was acquired through the Root River 1W1P grant and federal EQIP funding. Funding through various partnerships may be needed for a project of this magnitude.

## *Waste Storage Facility*





*Removing push-off ramp*



*Push-off ramp is gone*



*Old Milkhouse Waste*



*Old Milkhouse Waste Lid*



*New Milkhouse Waste*



*August 21, 2023*



*10" PVC*



*Clean  
Water  
Diversion*



*Intake pipe*



*Outlet pipe*



*Grading & Shaping*



*Reaching final subgrade*



*4"  
Perforated  
Tile*



*September 5, 2023  
Ready for the next step*



*Installing rebar  
September 6, 2023*



*Ready to pour pit walls*



*Pouring in progress  
2 to 1 slope*



*Pouring near completion  
September 28, 2023*



*15" Dual Wall Culvert  
October 4, 2023*



*October 6, 2023*



*Fencing in progress*



*Fencing completed  
October 30, 2023*



*Facility in use  
October 30, 2023*



*Seeding  
November 13, 2023*



*Mulching in progress*





Cost Estimate = \$614,892.51  
Total Project Cost = \$611,697.39  
Eligible Cost Share Amount = \$597,741.50  
Southeast Feedlot Program = \$100,000.00  
EQIP = \$361,976.56  
Root River 1WIP = \$58,018.50  
Total Cost Share = \$519,995.06  
Out of Pocket = \$77,746.44  
85% Cost Share

## **2023 Conservationist of the Year Wayne & Elsie Olson Family**

Upon request of the Olson's a local recognition event was not held.



### **Educational Outreach**

- MACDE Education Grant – “Enhancing Conservation Education in Houston County”  
This grant provides funds to assist with various educational outreach events. It allows Root River SWCD the opportunity to educate producers in the tri-state area.

During 2023 while partnering with other organizations the grant funds assisted in the following events.

- ❖ Root River SWCD hosted and organized a stop on the I-90 Soil Health Tour held February 8<sup>th</sup> at the Hokah Fire Station.

Speaker Don Sponheim of Mitchell County, Iowa shared his knowledge of no-tilling, cover crops and making the change.

Martin Larsen, a sought-after speaker from Byron, MN, offered his expertise on building healthy soil; ground water quality; regenerative ag practices; challenges and innovations in food and farming markets.



- ❖ On July 25, 2023 Root River SWCD partnered with Minnesota Soil Health Coalition, Grazing Lands Conservation Association (GLCA), and USDA NRCS to

host a Grazing Field Day. Topics for the event Grazing Basics and a Solvita Testing presentation with distribution of test kits.



- ❖ The SWCD staff manned an exhibit at the Houston County Fair August 17<sup>th</sup> – 20<sup>th</sup>. The exhibit offered an array of information on various programs and services that are offered through the SWCD.



- The 2023 Area 7 Envirothon, that the Root River SWCD actively promotes, was held May 3<sup>rd</sup> at the Byron Sportsman and Conservation Club near Byron, MN. Houston County did not have any teams participate. Staff assisted with the event and one board supervisor was a judge. A video describing the event is now available on YouTube <https://youtu.be/mRbXvWQXCl>.
- On May 18<sup>th</sup>, MN Extension Services hosted the Houston County Fourth Grade Farm Safety Day. All fourth grade students throughout the county gathered in Caledonia, MN for this event. SWCD staff did a presentation on Top 10 Dangerous Plants.



- Root River SWCD collaborated with Caledonia High School through their job shadow program. A student shadowed with a staff technician.
- Staff submitted 19 news articles throughout the year to the local newspapers for publication or for our fall newsletter or the Conservation insert in the Fillmore County Journal. Our newsletter was mailed to 253 landowners and can be found on our website <https://www.co.houston.mn.us/departments/soil-and-water/?mdocs-file=6395>.
- The annual Sixth Grade Environmental Day was held September 25<sup>th</sup>, 233 sixth graders from Houston County were on site for this outdoor classroom event hosted

by the Root River SWCD. Students rotate through eight educational stations throughout the day. The station topics include Soils, Learning to Live with Rattlesnakes, Aquatic Invasive Species, ATV Safety, Forestry, Groundwater/Geology & Fossils, Electro Shocking of the Stream, and Wildlife.



## **Meetings - Staff and/or Supervisors in 2023**

- Aquatic Invasive Species meetings
- Area 7 Manager meetings
- Area 7 SWCD Supervisor meetings
- Area 7 Technician meeting
- BALMM meeting
- Bear Creek Watershed Tour & meeting
- BWSR Board Meeting
- Crooked Creek Watershed monthly meetings & inspection tour
- Envirothon meetings
- Houston County Board of Commissioners meetings
- Houston County Comprehensive Plan meeting
- Houston County Hazardous Plan meeting
- Houston County Land Use meetings
- Houston County Water Plan Committee meetings
- I-90 Soil Health Tour meetings
- Local Work Group meeting
- MACDE meetings
- MCIT meeting
- MDH Clean Drinking Water EPA meetings
- MN Sick/Safe Leave meetings
- Mississippi River – Winona/La Crescent One Watershed One Plan Work Group & Policy meetings and Public Hearing
- MPCA meeting
- MPCA WinLaC 1W1P meeting
- MPCA WRAPS meeting
- NRCS staff & technician meeting
- PERA workshop
- Prescribed Grazing field day
- Root River One Watershed One Plan Work Group & Policy meetings
- Root River SWCD monthly board meetings
- Soil Health Tours
- Staff meetings
- TEP meetings
- Technical Service Authority 7 (TSA) meetings and personnel policy meetings
- Technical Service Authority 7 (TSA) PRAP meeting

### **Staff Development in 2023**

- Aquatic Invasive Species training
- eLink training
- LiDAR training
- MASWCD webinar
- Prairie Restoration training
- RIM training
- Section 508 AgLearn training
- Security Awareness training
- Soil Health - Cover Crop trainings
- Tree ID & Timber Stand Improvement training
- Vegetation Establishment & Guidelines Webinar
- WCA Technical training
- Workplace Violence training
- BWSR Trainings
  - *Strike the Right Chord with Your Board*
  - *Cooking up eLink Success*
  - *Grant Programs: Piecing It All Together*
  - *Things Are A Changin'*
  - *Soil & Water & Land – OH MY!*
  - *CWMP – Tracking Fundamentals*
  - *General Accounting Update & Grant Tracking*
  - *Buffer & RIM/CREP Updates*

### **Partnerships in 2023**

- Crooked Creek Watershed District
- Field to Stream Partnership
- Grazing Lands Conservation Association (GLCA)
- Houston County
- Minnesota Association of Soil and Water Conservation Districts (MASWCD)
- Minnesota Board of Water and Soil Resources (BWSR)
- Minnesota Climatological Network
- Minnesota Department of Natural Resources (DNR)
- Minnesota Extension Services
- Minnesota Pollution Control Agency (MPCA)
- Minnesota Soil Health Coalition
- Mississippi River-Winona & La Crescent watershed
- Root River watershed
- SE SWCD Technical Support Joint Powers Board
- Technical Evaluation Panel (TEP)
- USDA Natural Resources Conservation Service (NRCS)