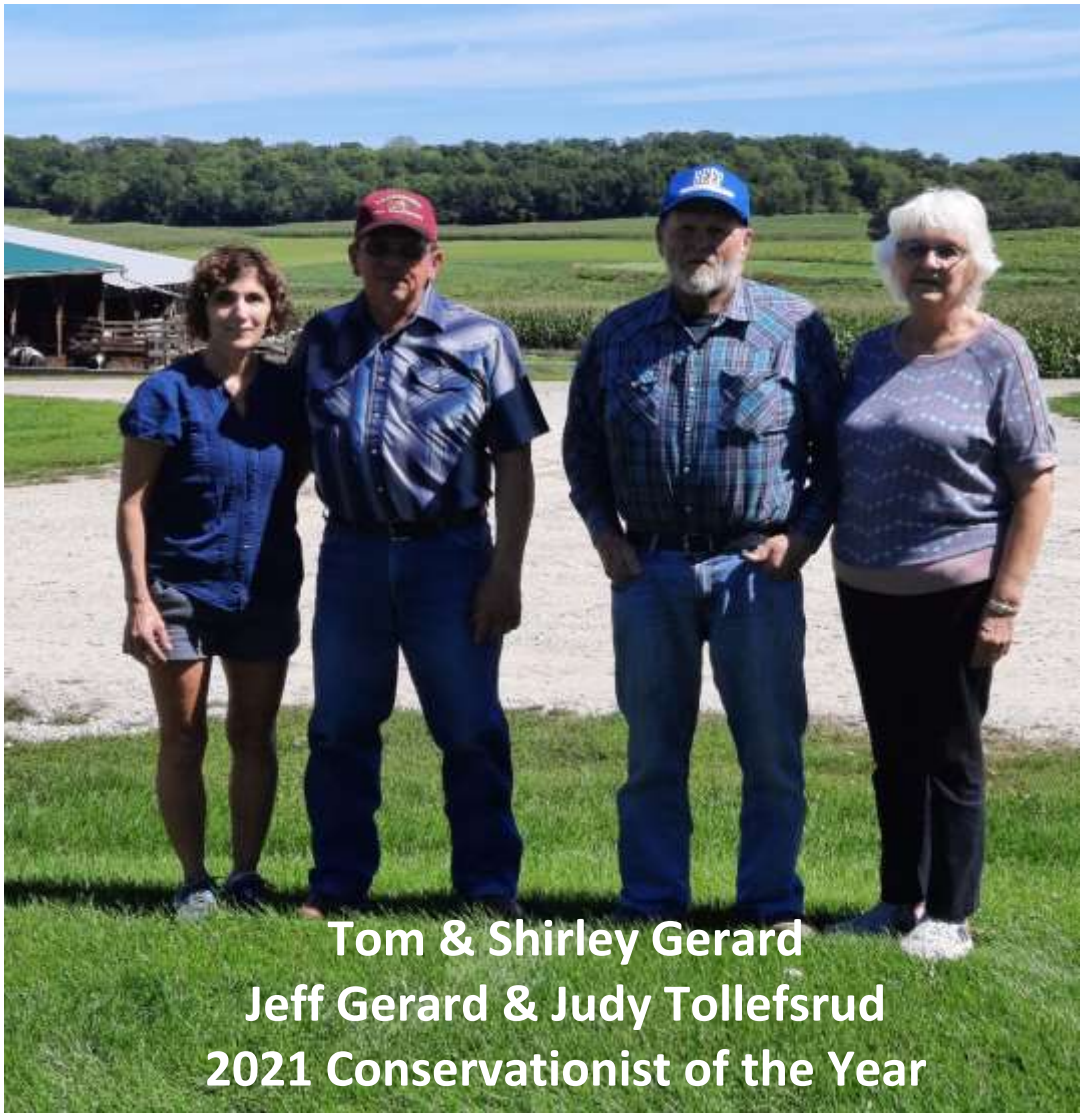
2021

Root River

Soil and Water

Conservation District

Annual Report



Tom & Shirley Gerard
Jeff Gerard & Judy Tollefsrud
2021 Conservationist of the Year

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

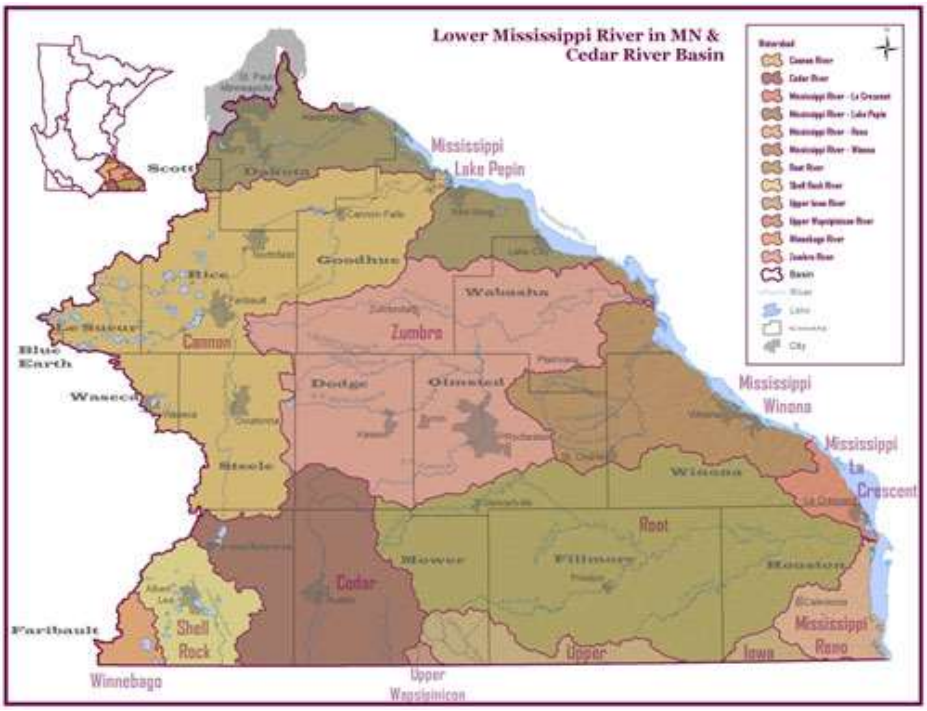
> *"Maintaining and enhancing the quality of soil and water for the environmental and economic benefits they produce, preventing degradation, and restoring degraded soil and water resources of this state contribute greatly to the health, safety, economic well-being, and general welfare of this state 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 2021

Dave Walter – District Manager

Bob Scanlan – Assistant Manager

Dan Wermager – Technician & Conservation Planner

Jean Meiners - Technician

Janice Messner – Administrative Assistant

NRCS Staff 2021

Gary Larson – District Conservationist

Machele Bollman – Soil Conservation Technician

Joint Powers Board Staff 2021

Jason Rochester – Engineering Technician

Pheasants Forever & Quail Forever Staff 2021

Eric Ressel – Farm Bill Biologist

District #1 – *Jerry Welke*
La Crescent Township & Village
Hokah Township & Village
Mound Prairie Township
Union Township
Term Expires December 31, 2022

District #2 – *Cecil Graf*
Brownsville Township & Village
Crooked Creek Township
Jefferson Township
Term Expires December 31, 2022

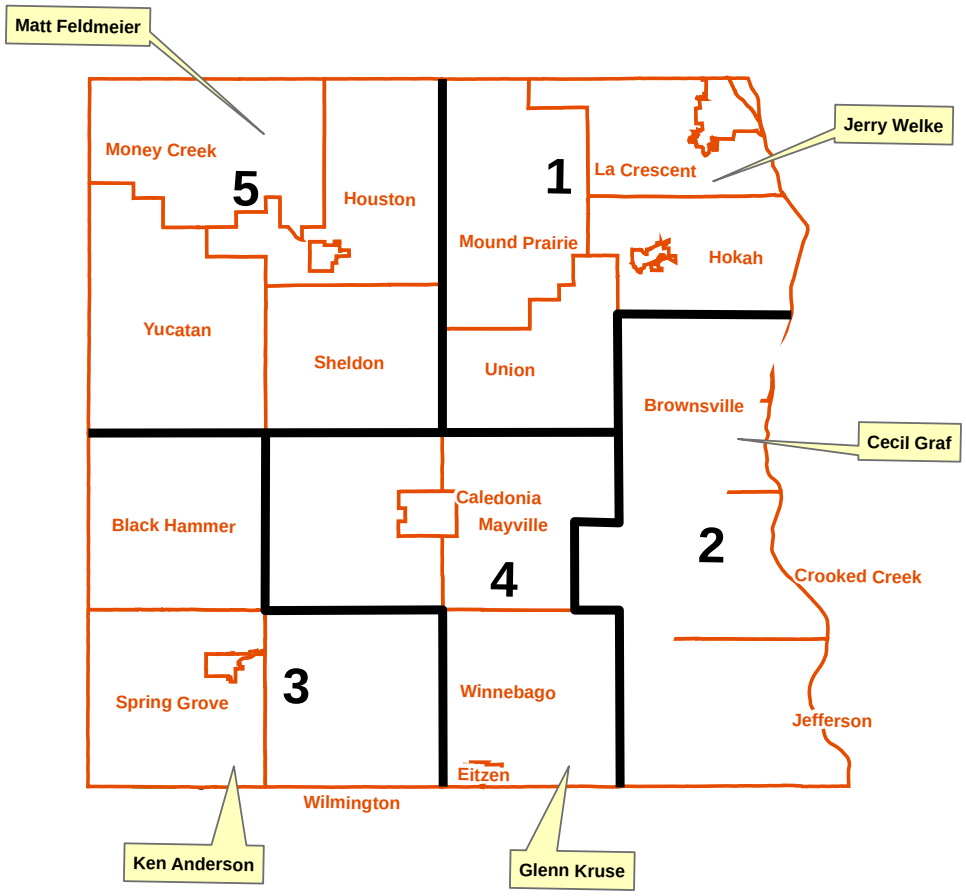
ROOT RIVER SOIL AND WATER CONSERVATION DISTRICT SUPERVISORS

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

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 2021

Practice/Inspections	Number of Practices	Amount	Comprehensive Plan Implementation Schedule	Root River 1W1P Implementation Schedule Houston County
Brush Management	4	69 contracted acres	Goal 2 – B.7	SUST – 1.4 LF – 5.3
Building Sites/Erosion Control Plan		17 Plans/Sites	Goal 3 – A.1	SW – 3.8, 6.7, 6.8 W1 – 7.1
Buffer Cost Share Spot Checks	7	12.44 acres totaling 8 parcels	Goal 2 – C.1, C.2	LF – 1.3; SW – 3.5, 5.1, SW - 6.1; SUST – 4.1 W1 – 2.1
MN Buffer Law Required Checks	25 landowners	41 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		51 plans	Goal 2 – A.2, A.3, B.6, B.8; Goal 3 – D.1	SC – 2.1, 2.4
Contour Buffer Strip	4	70.5 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		132 inspections		SC – 2.5
Cover Crop	9	273 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
Diversion	1	100 linear feet	Goal 2 – B.2, B.3	SW – 3.3, 3.4, 3.5, 6.1 SUST – 2.8
Grade Stabilization Structure	7		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
KARST Sinkhole Treatment	2		Goal 2 – B.2, B.3, B.9	GW – 1.1, 1.7, 1.9, 3.2 GW - 5.5, 6.1; SUST – 2.8
Pond Clean-Outs	12		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	7		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
Residue & Tillage Mgt. No-Till	2	123.78866 contracted acres	Goal 2 – B.3, D3	GW – 1.9, 2.1, 3.1, 3.2, GW - 3.4, 4.4, 5.3 SW – 3.1, 3.2; SUST – 2.4
RIM Site Inspections	23	950.8 acres	Goal 2 – A.1	SW – 10.2; LF – 4.2, 4.4 SUST – 1.4, 1.5

Practice/Inspections	Number of Practices	Amount	Comprehensive Plan	Practice/Inspections
Waste Facility Cover	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		18 Articles	Goal 1 – C.5 Goal 2 – A1, B.9	SUST – 2.7

- The Minnesota Pollution Control Agency's (MPCA's) Federal Clean Water Act Section 319 (Section 319) Grant program provides funding and technical assistance to counties who in turn work with landowners to develop locally based solutions to reduce non-point source (NPS) pollution and implement total maximum daily load (TMDL) solutions in critical source areas. Houston County requests services from Root River SWCD for this program. The SWCD staff work closely with producers addressing open feedlot run-off and putting together solutions to address areas of concern.

  The grant also allows Houston County to provide funding for best management practices (BMPs) that directly reduce sources of NPS and associated education or development activities to BMPs.

  In 2021, staff was able to provide technical assistance to five producers. Of the five, one producer completed a roof structure project and two producers are likely to install projects in 2022.

- Houston County appropriated $22,713 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 195.5 hours to this program, which is 9.4% of one FTE. They performed approximately 316 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. With COVID-19 restrictions being lifted, foot traffic at the county fair seen a nice rebound.
  The SWCD also resumed hosting 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 2021, staff reviewed 17 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 re-imbursements for anyone with an infant. In 2021, one reimbursement was provided.

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


Push-Up Pond project


Pond Clean Out project

  Technical staff assisted with the planning and installation of seven push-up ponds and 12 pond clean out projects in 2021. A dramatic increase of interest for the incentive based funding has created a wait list consisting of six pond clean out projects and 14 push-up pond projects. Some landowners have opted to move forward without the incentive payment, but benefits from the free technical assistance that staff offers.

  In addition, in 2021 the Water Plan Committee offered a one-time incentive payment for cover crops. A producer used this opportunity to plant 64 acres of winter camenelina.

- The SWCD assists Houston County with the Wetland Conservation Act. During 2021, the SWCD provided wetland technical assistances on 20 project sites and visited five

potential violation sites. Time was also spent on continuing education. The Root River SWCD also provided 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).

- A Clean Water Legacy Grant has opened the door for the Conservation Corps of Minnesota (CCM) crew to spend approximately a week in Houston County. Through an application process, the Root River SWCD was selected as one of the project areas for 2021. The CCM is a 501(c) (3) non-profit organization that engages hundreds of youth and young adults each year in programs and initiatives that improve access to outdoor recreation, restore natural habitat, protect waterways, and respond to community needs and natural disasters. CCM members give back to their communities while gaining a foundation of marketable skills for their future. Young adults, ages 18-25, who join the programs are enrolled as AmeriCorps members, volunteering to serve their community through environmental stewardship.

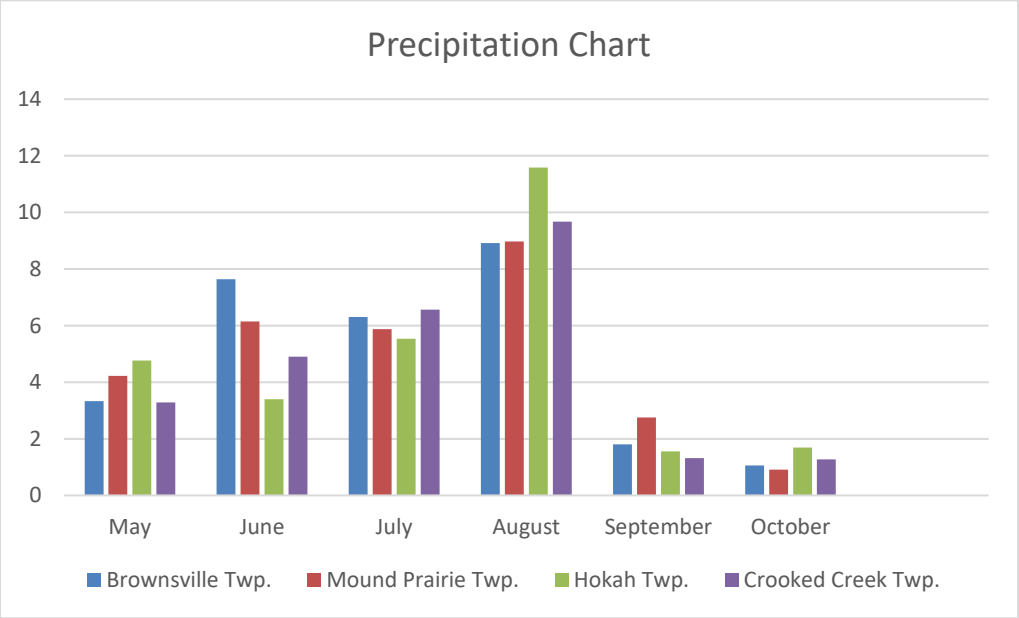
  The CCM's work consisted of debris removal from the inlet of the R-3 flood control structure (South Fork Lake) and invasive brush removal from other flood control structures including R-2 (Zehner's), S1-B (Leary's), S1-A, R-3, and R-1 all within the Crooked Creek Watershed.

  Maintenance of the flood control structures within the Crooked Creek Watershed is important as a means to continue to provide flood protection to public infrastructure and landowners within the watershed.

- A Houston County landowner was awarded a 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 were seeded on former soybean and former corn ground. First year testing included a scissor cutting of regrowth following the first harvest in late summer/fall and an initial Haney test. Future testing will include additional scissor cuttings, infiltration testing, and a follow-up Haney test".

- Nine thousand dollars continues to be disbursed to three landowners/participants in The Nature Conservancy Hayable Buffer Program. In 2013, these participants received approval for a ten-year contract. The Root River SWCD staff administers the funds, provides technical and compliance assistance.

- Rain Monitoring Program - This program coordinates with the Minnesota Climatological Network. Thirteen volunteers throughout Houston County measure and record precipitation on a daily basis. During 2021, staff recruited one new volunteer.



Houston County's highest rainfall totals were seen during the period of May – October 2021. We can surmise that August was the wettest month and October the driest month. During this period, Brownsville Township received the highest amount of precipitation 29.05 inches averaging 4.84 inches per month followed by Mound Prairie at 28.87 inches averaging 4.81 inches per month and Hokah with 28.48 inches averaging 4.74 inches per month. Yucatan had the lowest amount of precipitation only reporting 17.45 inches averaging 2.91 inches per month.

How does the rainfall averages compare to 2020? The rainfall amounts for the same six-month period was higher in 2020. Crooked Creek Township had the highest average of 7.745 inches, followed by Winnebago Township with 6.96 inches. Mound Prairie Township followed with 6.64 inches with Mayville Township at 6.6225 inches.

- Tree Program – 7,135 trees sold in 2021 for conservation purposes. The trees in highest demand Norway spruce and Colorado spruce at 750 and 700 trees respectively. Special orders totaling 2,110 trees played a significant role in the 2021 tree sales. One special order consisted of 1,000 black walnut trees. The wholesaler sold out of many species in specific sizes; therefore, customers ordered a size that was available categorizing those orders as a special order. The 2021 tree sales consisted of 75 orders totaling $ 10,303.50.

- 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, 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 six retention structures and one waterway in the Crooked Creek watershed.

Through a 10-year process, 2021 is the year a key pond was added in the Crooked Creek watershed. Following the extreme flood event of August 2007, the Crooked Creek Watershed Managers decided to prioritize areas of the watershed where improvements in flood control and reduced sedimentation could be realized. The pond site they chose is located in Section 1 of Winnebago Township on property owned by Gary Klinksi and Joe Hammell. This site was chosen because of continued devastation due to increased heavy flood events since the 2007 flood.

With the majority of the project located on Klinski property, both landowners have given up a portion of their lands so that downstream landowners may see the benefits of reducing flood flows and lower sedimentation into Crooked Creek.

Building Dam – July 14, 2021

The drainage area of the site includes 1,010 acres, which is a mix of tilled farmland, CRP, pasture, and forestland. The site has excellent upland treatment as over 75% of the drainage area is adequately treated with practices that keep soil erosion below maximum tolerance levels. Even with adequate upland treatment, this area in the valley has seen dramatic gully erosion over the years. With construction of the dam, the Watershed can expect much less sediment to be deposited into Crooked Creek thereby improving trout habitat and drastically reduced flood flows during heavy rain events.

Pipe Install – August 3rd

The constructed dam has a concrete drain-pipe through the center and is expected to hold back a 50-year flood event with a 56% out flow reduction. Larger events may go over the emergency spillway and outlet into an existing dry run and newly constructed grassed waterway. The dam features a 60 ml synthetic liner on the pool side to aid in hydraulic protection due to the dam's location in respect to shallow topsoil over bedrock at the site and meets DNR Dam Safety Standards. The dam is considered a "dry structure" in that the drainpipe was built into and through the dam at ground level. This will reduce the potential of dam failure and sinkhole formation due to the hydraulic effects of pooling water over shallow topsoil as there will be no retention of permanent water behind the dam.

Riser Install
August 4th

Final construction of the site will be the end of summer in 2022 when the new grassed waterway will be connected to the outlet pipe. Once the project is complete, ongoing inspections and routine maintenance will be required as with other flood control structures located within the watershed.

The Crooked Creek Watershed District set funds aside for this project, while SWCD staff dedicated much time to coordinate with the engineering firm, review easements, obtain proper permits, administer the project construction, contracting and leveraging additional county, SWCD and Root River One Watershed One Plan funds to offset the cost of the project.

- Winnebago Watershed District
  Annually county funds are allocated to the SWCD for Winnebago Watershed maintenance. In 2021, funding provided assistance in the repair of a sinkhole located in Section 18 of Winnebago Township.

- Bear Creek Watershed Project
  A combination sinkhole/dam rehabilitation project was completed in June 2021 at the Bear Creek #3 site. The site, located on private land in Section 15 of Spring Grove Township, is part of a "Watershed Flood Prevention Operations" (WFPO) Project sponsored through a partnership between Winneshiek and Houston County. The original dam was planned in 1998 and built in 2010. It controls 153 acres of drainage.

The main focus of the Bear Creek Watershed Projects is to provide flood and sediment control to downstream properties. This site, along with others in the watershed,

features a formation called the St. Peter Sandstone near the surface of the property. It is susceptible to weathering, dissolution, and formation of voids near the surface. These characteristics are common in the formation of sinkholes. When water moves over or is pooled on top of these formations, sinkholes are common. A sinkhole

formed a number of years ago. Over time, the sinkhole became a burden to the property owners and compromised the integrity of the dam.

Through the Watershed Partnership, a plan was developed to address the situation and funding was earmarked through Iowa NRCS in early 2020. This plan, developed by an Iowa Area Conservation Engineer, aimed to reconstruct the dam, creating a "dry structure" by lowering the drainpipe that runs through the dam. In addition, a plan was put together to fix the sinkhole. The sinkhole repair consisted of excavation of the sinkhole, installation of a pipe and inlet up through the center of the sinkhole, placement of various sizes of riprap and drainfill rock to fill the hole and then placement of geotextile and finally fill material at the surface. The combination of turning the dam into a "dry" structure and addressing

the sinkhole will enable the site to continue to be protected from heavy rain events by the existence of the dam.

- 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 2021, RCPP 1W1P cost share fund disbursements totaled $38,102.53 for the installation of six grade stabilization structures, a diversion and a small portion of a waste storage facility. Projects pending for 2022 consist of one grade stabilization structure. Funds allocated for this project totals $8,754.36.

Grade Stabilization Structure Project

  Each county has priority focus areas. Houston County has two priority areas, Riceford Creek and the South Fork of the Root River. Technical assistance funds in these two priority areas total $13,440.41 with 278.75 hours of assistance in 2021. Eight landowners were the recipients of this assistance. This resulted in four landowners installing projects in 2021, which also received cost share assistance funding through this grant. In 2022, three additional projects are on the docket for installation. These projects will also receive cost share funding through the grant. Moreover, three additional landowners received technical assistance in these priority areas.
  This grant also offers funding for technical assistance to landowners that may not be in the priority areas. In 2021, five landowners received technical assistance. Staff dedicated 182 hours for the assistance totaling $8,375.01 in grant funds.

  The Root River 1W1P Policy Committee dedicated $380,000 Capital Improvement Project Funding as cost share dollars to the Crooked Creek Watershed District for the construction of the Klinski pond project. An additional $55,000 was provided for

technical assistance for the project. This amount covered 340 hours of staff time, mileage and one payment to the project engineering firm.

- Buffer Law Grant – An appropriation of $17,200 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 2021, technical assistance consisted of flagging buffers for landowners, performing 32 spot checks on 49 parcels of both cost share buffers and non-cost shared buffers; actively maintain a spreadsheet and BuffCat updates.

- 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.” Samples are sent to a lab and tested for soil health parameters. A follow up sampling will be conducted in year three of the project. A comparison of the data will be formulated. This program provides an opportunity for producers to see the benefits of soil health principles.

  As a majority of the cost share funds were disbursed for projects installed in 2020, two producers benefitted from the remaining funds. These producers installed 123.8 acres of cover crops using a no-till method. Cover crop cost share assistance totaled $14,854.62 and no-till cost share assistance totaled $3,713.66.

Staff conducted year two spot checks on twenty sites and provided any additional technical assistance that these producers needed.

- Easement Delivery Grant - Technical staff performed 22 BWSR appointed spot-checks on landowners' perpetual easements through the Reinvest in Minnesota Program (RIM). In addition to the 950.8 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 one easement project amendment.

- The Lower Mississippi River Feedlot Management in MN project leverages state funding from BWSR to provide match for a USDA Natural Resources Conservation Service (NRCS) Regional Conservation Partnership Program (RCPP) project. The SWCD is providing technical assistance to mitigate feedlot run-off from smaller open lots in southeastern Minnesota.

In 2021, staff provided technical assistance on the construction of a waste facility cover. Through RCPP, this producer received $153,279.47 cost share assistance for the engineering and construction of the waste facility cover.

Waste Storage Cover Project

- Minnesota Agricultural Water Quality Certification Program (MAWQCP) – A $2,500 commitment, provided by the Minnesota Department of Agriculture (MDA), Minnesota Board of Water and Soil Resources (BWSR), Minnesota Department of Natural Resources (DNR), and the Minnesota Pollution Control Agency (MPCA), was awarded to the SWCD to continue implementing a program offering a voluntary opportunity for farmers and agricultural landowners to take the lead in implementing conservation practices that protect our waters. Those who implement and maintain approved farm management practices are certified. In turn, they obtain regulatory certainty for ten years. The program helps address concerns about changing regulatory requirements from multiple state and federal agencies.

  During the past year, staff provided project development assistance to three landowners interested in a sinkhole repair, a diversion, and a grassed waterway. One additional landowner acquired technical assistance via survey and design of a grade stabilization structure and a grassed waterway.

- 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 actively 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 2020 results revealed 53 samples were received. With <10 mg/L being an acceptable level of nitrates, eight samples showed nitrate levels >10 mg/L and four samples were 9 mg/L. The location of these sites includes two in Black Hammer, Mound Prairie, Winnebago, Mayville/Union townships and one in Caledonia, Jefferson, Money Creek and Spring Grove townships. We also saw 19 samples <0.25 mg/L and 16 samples <5 mg/L. In spring 2022, we will receive results from the 2021 sampling.

- BWSR State Cost Share – Technical staff assisted two landowners with the application process to obtain cost share funding for their proposed projects. Both projects were approved for cost share assistance. One landowner has since cancelled his project. The second project, a grade stabilization structure, will be constructed in 2022.

- Surface Water Assessment Grant (SWAG) – This program, administered through MPCA and funded with Clean Water Funds, is assessing the chemical, physical and bacteriological integrity of the lakes and streams in MN. Monitoring is key in the verification that designated uses are being met and it provides information on the condition of the waters. Root River SWCD staff is collecting water samples for assessment from Pine Creek located in the northeastern portion of the county. These samples are forward to a certified lab for testing and analyzation. The lab results are compiled and forward to the SWCD and MPCA.

- Watershed Conservation Planner Initiative (WCPI) - Through Clean Water Funds USDA-NRCS and BWSR has entered into a contribution agreement with the goal of increasing landowner/producer readiness to implement conservation practices in the HUC8 watersheds, which includes the Mississippi River Basin Initiative, or National Water Quality Initiative watersheds. As one of the host SWCDs, Root River SWCD has dedicated staff certified as a watershed conservation planner. In 2021, the conservation planner expanded his training by participating in five webinars.

    - ❖ Outreach and workshop activities continued into 2021. A new priority area, Riceford Creek, was assigned for the last year of the grant. The planner sent out 249 outreach letters and received 25 responses. Follow-up phone calls were made to the remaining 224 landowners. Due to the continuation of COVID-19, only one outdoor event, a soil health and conservation planning field day, was held in the fall. However, two videos were filmed and uploaded to YouTube and posted on our Facebook Crooked Creek Watershed District account. The videos depicted soil ring infiltration tests in the field. They compared infiltration rates of soils managed for soil health vs. conventional management.
    - ❖ In 2021, the planner performed 38 walkovers and completed 51 conservation plans.

    - ❖ Engineering Assistance - $42,807.62 for a total of 835 hours.

In 2021, thirty-three landowners received technical assistance, ranging from I & E to design and construction of projects. A total of six grade stabilizations, three grassed waterway sites, a diversion and 10.5 acres of contour strips were installed that required technical assistance.

Technical work to prepare for future projects was also well underway. In the design process are fourteen grade stabilization structures, seven grassed waterways and two streambank restorations.

- 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 2021, Local Capacity grant funding provided an overall total of $88,975.58 in funding assistance for the Root River SWCD. Following is a breakdown of the usage of funds.

  - ❖ Administrative $3,815.02 was spent to carry out the following administrative tasks: prepare legislative story report; prepare and record site inspections; prepare and submit grant work plans and amendment requests; 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 $5,530.53 ~ 112 hours were committed to the following trainings/workshops/webinars:

    Trainings – U of M Prescribed Grazing & Cover Crop on-line training videos; Local Work Group training; Cultural Resources; Pollinator training; Livestock Pipeline on-line training; Environmental Evaluation training; Nitrogen Management Training; Pipeline Training; CAD Training; Cost Share Training; Soil Health - Cover Crop Training; Soils Training (Zoom); Hydrology training; Core Competence; Conservation Planning Training

    Webinars – Restoration Webinar; Improving Restorations Webinar; GNSS Training Webinar; Engineering Design Res. Webinar; Photos in Field Webinar; IDP Webinar;
    BWSR Academy:
    How to Effectively 'Tell Your Story' & Who Needs to Know?!
    Can You Hear Me Now? Better Virtual Outreach
    Grant Writing 101
    Contracts & Cost Share
    Something About that GAM & Quick Books for Grant Administration
    Prevailing Wage & Stewards of Public Funds

    Workshops - Soils Class (Hastings, MN)

  - ❖ Administrative mileage reimbursement was $128.80 totaling 230 miles.

- Local Capacity Cost Share – BMPs $20,400.00

  FY19 LC Cost Share – Two landowners received incentive payments totaling $4,000 for their brush management practices. Together they treated 40 acres. In addition, one landowner received a disbursement totaling $1,200.00 for the installation of cover crops.

  FY20 LC Cost Share – Three landowners received an incentive payments totaling $5,800 for their brush management practice on 49 acres. In addition, four landowners received a combined disbursement total of $12,300 for the installation of 150 acres of cover crops.

- Technical Assistance - $51,934.04 for a combined total of 1,018 hours. Overall, 84 landowners received technical assistance ranging from I & E to design and construction of projects. Some landowners had multiple BMPs.

  FY20 - Work consisted of 53 hours of cover crop, brush management, Hayable buffer, 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 65 landowners some of which had multiple practices. Of these 13 projects carried forward from 2020, eight of the projects were completed in 2021, two cancelled their projects and two are slated for 2022 completion. Of the remaining 52 landowners, seven projects were completed, eight projects are slated for 2022 and three projects are on hold due to lack of funding. In addition, 34 landowners received technical assistance that did not lead to a project or was a project they completed on their own.

  FY21 funding provided the opportunity to service 12 new technical assistance requests. Of these new requests, three landowners completed their project, three have projects slated for 2022 and six requests were for technical assistance only.

  We also had seven new technical assistance requests that were funded with both the FY20 & FY21 funds. From the requests four projects were completed, two are slated for completion in 2022 and one is on hold due to a lack of funding.

- Technical mileage reimbursements were $2,787.70 totaling 5,973 miles.

- RIM - $4,379.49 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.

2021 Conservationist of the Year
Tom & Shirley Gerard
Jeff Gerard & Judy Tollefsrud

Upon request of Gerards and the continuation of the COVID-19 pandemic, a local recognition event was not held.

Jeff & Tom were also awarded the Area 7 Conservationist of Year advancing them to the State competition.

Educational Outreach

- The 2021 Area 7 Envirothon, that the Root River SWCD actively promotes, was not held due to the continuation of COVID-19. The District did promote the NACD Photo Contest as an option for students and adults alike.

- The SWCD staff manned an exhibit at the Houston County Fair August 19th – 22nd. The soil health tunnel exhibit was enjoyed and appealed to many age groups.

- The annual Sixth Grade Environmental Day was back in full force for 2021. On September 21st, 221 sixth graders from Houston County were on site for this outdoor classroom event hosted by the Root River SWCD.

- On October 16, 2021, our SWCD Conservation Planner spoke during a soil health tour on the importance of conservation planning.

- Staff submitted ten news articles throughout the year to the local newspapers for publication. Our fall newsletter featured eight additional articles.

Meetings - Staff and/or Supervisors in 2021

- Area 7 Manager meetings
- Area 7 SWCD Supervisor meeting
- BALMM meeting
- Bear Creek Watershed Tour & TEAMS meeting
- CREP meetings
- Crooked Creek Watershed monthly meetings, project development meetings & inspection tour
- Driftless Symposium
- Envirothon meetings
- Houston County Commissioners meetings
- Houston County Water Plan Committee monthly meetings
- JAA meetings
- MACDE meeting
- MASWCD Finance Committee Meeting
- MASWCD State Convention
- MCIT meeting
- MN Land Trust meeting
- Mississippi River – Winona/La Crescent One Watershed One Plan Work Group & Policy meetings
- MRBI meeting
- Root River One Watershed One Plan Work Group & Policy meetings
- Root River Dike meeting
- Root River SWCD monthly board meetings
- Soil Health Tour
- Staff meetings
- SWAG update meetings
- Technician meeting
- TEP meetings
- TMDL meetings
- Technical Service Authority (TSA) meetings
- WCPI Internal Strategy meetings
- WRAPS meetings

Staff Development in 2021

- U of M Prescribed Grazing & Cover Crop on-line training videos
- Forage & Biomass training video
- Soil Health training videos
- CAD training
- Conservation Planning training
- Core Competence training
- Cost Share training
- Cultural Resources training
- Environmental Evaluation training
- Federal Computer Security training
- Hydrology training
- Livestock Pipeline on-line training
- Local Work Group training
- Nitrogen Management training
- Pipeline training
- Pollinator training
- Soil Health - Cover Crop training
- Soils training (Zoom)
- Trimble training
- SSTS Continuing Education
- Soils Workshop (Hastings, MN)
- CRP Training Webinar
- Engineering Design Res. Webinar
- GNSS Training Webinar
- IDP Webinar
- Photos in Field Webinar
- Restoration Webinar
- Improving Restorations Webinar
- BWSR Academy Trainings
    - *Can You Hear Me Now? Better Virtual Outreach*
    - *Contracts & Cost Share*
    - *Grant Writing 101*
    - *How to Effectively 'Tell Your Story' & Who Needs to Know?*
    - *Prevailing Wage & Stewards of Public Funds*
    - *Something About that GAM & Quick Books for Grant Administration*

Partnerships in 2021

- Conservation Corp of MN (CCM)
- Crooked Creek Watershed District
- Field to Stream Partnership
- 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 Pollution Control Agency (MPCA)
- 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)