

North Cannon River Watershed Management Organization 2019 Annual Report

Mission Statement: “Managing groundwater and surface water to prevent property damage, maintain hydrologic balance, and protect water quality for the safety and enjoyment of citizens and the preservation and enhancement of wildlife habitat through collaboration among member communities.”

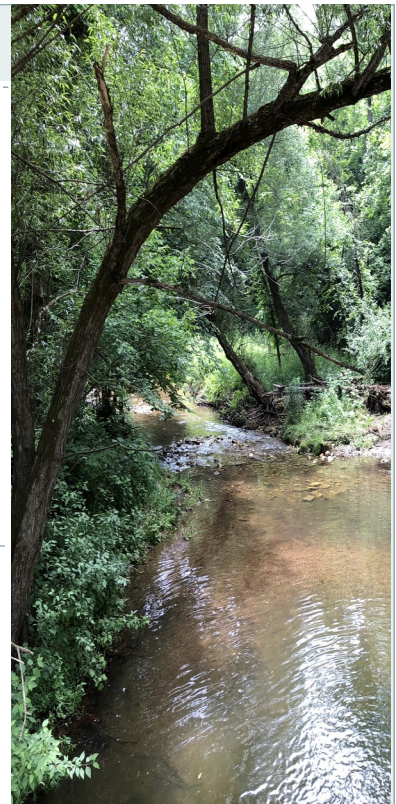
ABOUT US

The North Cannon River Watershed Management Organization (NCRWMO) is a government unit formed through a joint powers agreement signed by eight townships and three cities in southern Dakota County. Its jurisdiction covers approximately 150 square miles.

The sub-watersheds within its boundaries are Chub Creek, Trout Brook, Pine Creek, Mud Creek, and the Cannon River from Northfield to Lake Byllesby. The NCRWMO is predominantly rural in nature with agriculture as its primary landuse.

The NCRWMO was created in 1983 as a result of the State of Minnesota’s Surface Water Management Act. Minnesota Statute 103B.201 states that the purposes of a Watershed Management Organization shall be to:

1. Protect, preserve, and use natural surface and groundwater storage and retention systems.
2. Minimize public capital expenditures needed to correct flooding and water quality problems.
3. Identify and plan for means to effectively protect and improve surface and groundwater quality.
4. Establish more uniform local policies and official controls for surface and groundwater management.
5. Prevent erosion of soil into surface water systems.
6. Promote groundwater recharge.
7. Protect and enhance fish and wildlife habitat and water recreational facilities.
8. Secure the other benefits associated with the proper management of surface and groundwater.



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ATTACHMENTS

2019 Mid-Year Water Quality Monitoring Report
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Before and After photos of the Kathleen Budin Trust redesigned and rebuilt grassed waterway. Erosion control blanket and straw protect the soil until vegetation establishes.

2019 ACTIVITIES

The NCRWMO Watershed Management Plan identifies the following projects and tasks:

- ◆ Monitor water quality and water quantity in Chub Creek.
Status: Water quality and quantity monitoring in Chub Creek was completed in 2019 through a Joint Powers Agreement with the SWCD. Dakota County Parks is a partner that provided additional funding for water quality monitoring at sites through the entire NCRWMO watershed. A summary is available on the NCRWMO website.
- ◆ Conduct nitrate monitoring at springs in Trout Brook Watershed.
Status: Partnerships with Dakota County SWCD and Parks, as well as the University of Minnesota and Minnesota Geological Survey have allowed for the continued and expanded monitoring of springs. Springs monitored are Fox, LeDuc, Beaver and Swede. Results are analyzed in the Annual Water Quality Monitoring Report.
- ◆ Cooperate with agencies to update nitrogen fertilizer rates; disseminate nitrogen fertilizer management recommendations.
Status: Through partnerships with Dakota County SWCD and the Minnesota Department of Agriculture, efforts have been made with a Local Advisory Team. The partnerships even arranged for a Nitrogen Smart course in Cannon Falls in order to make the training accessible for farmers in the watershed.
- ◆ Collaborate with communities to help identify buffer priorities.
Status: Efforts were completed by Dakota County SWCD and Dakota County due to the State Buffer Law.
- ◆ Provide grant match for water quality BMPs, BMPs that reduce rate and volume of runoff, nutrient management practices, wetland restoration projects, and shoreline BMPs.
Status: The NCRWMO annually provides approximately \$4,000 to the Dakota County SWCD to be used for projects or as grant match to leverage grant funding.
- ◆ Promote and encourage volunteer water monitoring.
Status: The NCRWMO continues to sponsor the Wetland Health Evaluation Program (WHEP). Furthermore, through partnerships with Dakota County SWCD and the Minnesota Pollution Control Agency, monitoring of streams is promoted and multiple streams within the watershed have been monitored by volunteers.
- ◆ Provide education and partner with others; find funding to educate and engage agricultural producers.
Status: The Watershed Based Funding grant through the Board of Water and Soil Resources (BWSR) has helped the NCRWMO accomplish this task. Through a partnership with Dakota County SWCD outreach was provided on a number of BMPs.

2019 PROJECTS

STRUCTURAL

Kathleen Budin Trust

Grassed Waterway Dutch Creek

Harold Peine

Grassed Waterways Trout Brook

GDPP Land Holdings

Grassed Waterways Trout Brook

Bryce Kimmes

Grassed Waterway Trout Brook

Carol Leifeld

Grassed Waterway Trout Brook

Mike Conzemius

Basins Trout Brook

COVER CROPS

Robert Mahowald

1 yr— Oats Chub Creek

Bryce Kimmes

1 yr— Oats, Radish Trout Brook

Peine Farms, Inc

3yr— Cereal Rye Trout Brook

Doug Wille

3yr— Cereal Rye Pine Creek

Dave Legvold

3yr— Cereal Rye Mud Creek

Rusty Kluver

3yr— Cereal Rye Chub Creek

Brad Kluver

3 yr— Cereal Rye Chub Creek

NATIVE PRAIRIE

Robert Mathews Chub Creek

Kurt Kimber Chub Creek

Sheila Kennelly Dutch Creek

An **interactive map of projects** is available on the Dakota County SWCD website.





Beaver Spring in Miesville Ravine Park is one of four natural springs in the **Trout Brook** Watershed that are monitored for **Nitrates**

The **Department of Natural Resources** maintains an online **spring inventory** that allows users to submit locations of springs they have **located**

CANNON RIVER WATERSHED JOINT POWERS BOARD (CRWJPB)

The NCRWMO entered into a joint powers agreement with thirteen other Local Government Units within the Cannon River Watershed for implementing the Cannon River Comprehensive Watershed Management Plan.

The **mission** of the CRWJPB is to:

*“Work collaboratively to improve and protect the natural resources within the **Cannon River Watershed** to ensure prosperity of our urban and agricultural communities.”*

2020 WORK PLAN

The NCRWMO Watershed Management Plan identifies the following projects and tasks scheduled for 2020:

- ◆ Monitor water quality and water quantity in Chub Creek.
- ◆ Cooperate with agencies to update nitrogen fertilizer rates; disseminate nitrogen fertilizer management recommendations.
- ◆ Provide grant match for water quality BMPs, BMPs that reduce rate and volume of runoff, nutrient management practices, wetland restoration projects, and shoreline BMPs.
- ◆ Track groundwater quantity and quality through reports by others.
- ◆ Promote and encourage volunteer water monitoring.
- ◆ Provide education and partner with others; find funding to educate and engage agricultural producers.

The following tasks are not identified in the NCRWMO Watershed Management Plan but are needed in order to address State strategies:

- ◆ Participate in the Cannon River One Watershed, One Plan (1W1P) planning process and the Cannon River Watershed Joint Powers Board.
- ◆ Participate in the Watershed Based Funding grant process through the Board of Water and Soil Resources (BWSR).
- ◆ Review and revise the existing NCRWMO joint powers agreement.

WETLAND HEALTH EVALUATION PROGRAM

The NCRWMO sponsored a Wetland Health Evaluation Program (WHEP) team and two wetlands were monitored for the third consecutive year. This program helps the NCRWMO reach their Watershed Plan goals for Education and Outreach. A team of approximately 5 volunteers learned about wetland health and how to monitor macroinvertebrates and vegetation. The monitoring results are then used to look at the health of a wetland over time. Most importantly, the program familiarizes watershed residents with their local water resources and the benefits they provide.

We thank all of our WHEP volunteers and extend a special thanks to the team lead, Tom Loretto. When Tom was asked about the program he said “We had a small but enthusiastic crew of volunteers on our WHEP wetlands. Our forays in waders, in the muck, through canary grass and cattails, proved most enjoyable to our team as it marked a departure from their normal routine.”

Below is a summary of results from 2019 based on the Index of Biotic Integrity. A full report of the WHEP program can be viewed on the program website at www.mnwhep.org.

Wetland Code	Vegetation Score	Invertebrate Score
NC-1	Moderate (19)	Excellent (26)
NC-2	Poor (15)	Moderate (22)



WATERSHED BASED FUNDING GRANT

At the end of 2018 the NCRWMO was awarded a grant from the Board of Water and Soil Resources (BWSR) to implement projects that help achieve some of the goals in the NCRWMO Watershed Management Plan. Work started on these activities in 2019. Below is a list of those activities, a description and an update on progress:

♦ Structural Erosion Control Practices

Description: Projects will be implemented through Dakota SWCD Incentives Payment Practices Program. Projects will be marketed to landowners and ranked according to their cost to benefit ratio. Funds will be prioritized for projects in areas where a Subwatershed Analysis (SWA) is complete.

Progress: In 2019 the only completed SWA was for the Trout Brook Watershed. Five projects were installed in this watershed. Two additional SWAs, Pine Creek and Byllesby Direct, were completed in 2019. As SWAs are completed those watershed have prioritized lists of projects based upon the cost to benefit ratio and the top projects are where grant dollars will be spent.

♦ Non-Structural Erosion Control Practices

Description: Funds will be implemented and prioritized through the SWCD non-structural practices program application process, which focuses on cover crops. Ranking includes priority based on location (i.e. groundwater susceptibility) and project details (i.e. other pollutant concerns addressed)

Progress: Seven operators implemented cover crops in 2019 and have committed to an additional two years. These operators planted 767 acres of cover crops with seed types including oats, radishes, cereal rye and more.

♦ Subwatershed Analysis

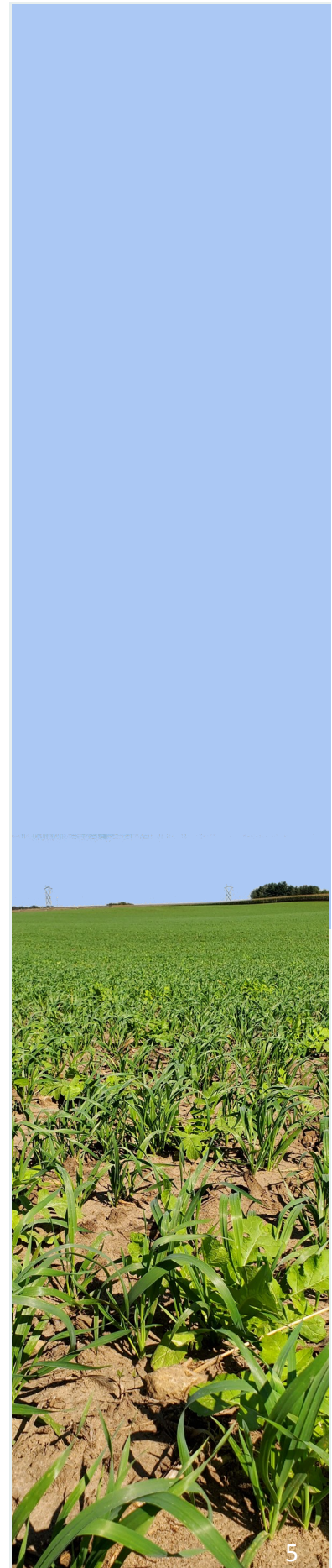
Description: Complete a subwatershed analysis. Activities include preliminary desktop mapping, landowner outreach, field reconnaissance, pollutant calculations, priority practice ranking and a final report.

Progress: Work began on a SWA for North Branch Chub Creek. The majority of field work was completed in 2019 and as well as the mapping of potential projects. This work will wrap-up in 2020 and then the report will be written.

♦ Drainage Water Management Outreach

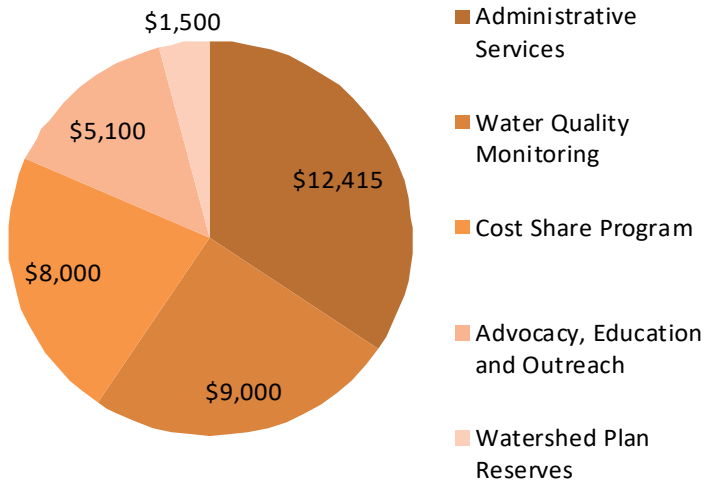
Description: Provide education and outreach on suitable drainage water management (DWM) practices in the NCRWMO area. Activities may include but are not limited to partnering with other agencies or non-profits, hosting field days, installing demonstration sites and creating outreach materials.

Progress: Staff coordinated with Natural Resources Conservation Service (NRCS) as they are doing similar outreach work in conjunction with Ecosystems Services Exchange. Staff developed materials in anticipation of an outreach event occurring in 2020.

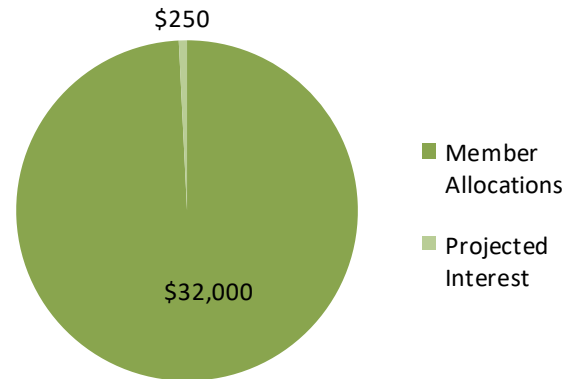


2019 BUDGET

EXPENSES



REVENUE



2019 MEMBER DUES

Community	% of Watershed	Tax Capacity in Watershed	% Tax Capacity	50/50 Share	Member Dues
Castle Rock Township	10.31	1.09	11.21	10.76	\$3,444.26
Douglas Township	17.78	1.19	12.24	15.01	\$4,803.89
Eurkea Township	7.43	0.61	6.28	6.85	\$2,192.69
Greenvale Township	19.97	1.55	15.95	17.96	\$5,746.04
Hampton Township	15.68	1.17	12.04	13.86	\$4,434.30
Randolph Township	6.98	1.66	17.08	12.03	\$3,850.09
Sciota Township	9.99	0.88	9.05	9.52	\$3,046.95
Waterford Township	9.90	0.99	10.19	10.04	\$3,214.03
Miesville	1.17	0.20	2.06	1.61	\$516.38
New Trier	0.12	0.06	0.62	0.37	\$118.13
Randolph	0.67	0.32	3.29	1.98	\$633.24
Total Dues					\$32,000.00



2019 REVENUES AND EXPENDITURES

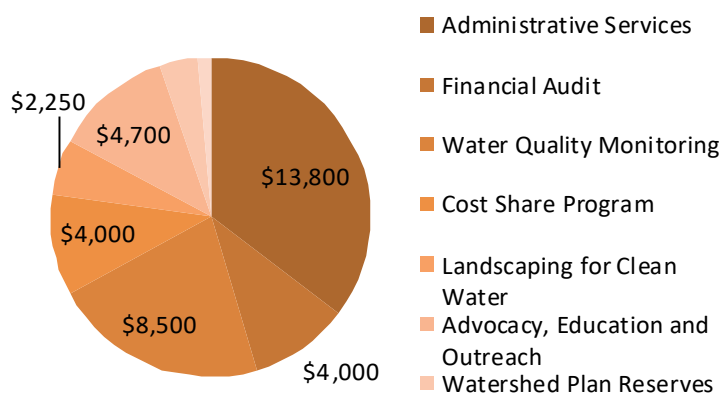
Revenues	
Member City Assessments	\$32,000.00
Interest Income	\$349.37
Total Revenues:	\$32,349.37
Expenses	
Administrative Services	\$11,070.80
Water Quality Monitoring	\$8,845.40
Advocacy, Education, Outreach	\$2,980.00
Conservation Programs	\$3,500.00
Misc Administrative	\$15.00
Total Expenses:	\$26,411.20
Watershed Based Funding Grant	
Total Grant Funds Received	\$68,260.00
Grant Expenses	
Grant Administration	\$246.95
Project Development	\$475.26
Agricultural Practices	\$40,721.80
Subwatershed Analysis	\$3,432.74
Drainage Water Management	\$313.25
Total Expenses:	\$45,190.00
Change in Net Position	\$5,938.17
Fund Balance—January 1	\$48,142.04
Total Fund Balance—December 31, 2019	\$121,751.05

2019 YEAR END FINANCIALS

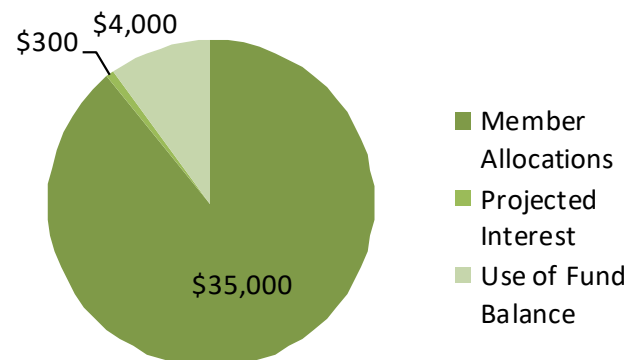
Assets	
Cash in Checking	\$53.51
Cash in Savings	\$109,428.26
Certificate of Deposit 11236	\$12,269.28
Total Cash:	\$121,751.05
Accounts Receivable	\$118.13
Total Assets:	\$121,869.18
Liabilities	
Accounts Payable	\$4,734.96
Accounts Payable WBF Grant	\$40,832.57
Total Liabilities:	\$45,567.53
Equity	
General Fund Balance January 1	\$48,142.04
Net Surplus / (-) Deficit	\$5,938.17
Total Equity:	\$54,080.21
Total Liabilities and Equity:	\$121,869.18
Watershed Based Funding (WBF)	
Grant Funds Deferred	\$22,221.44
Reserved—WBF Grant	
Total All Cash:	\$121,751.05

2020 BUDGET

EXPENSES



REVENUE



ADMINISTRATION

The Dakota County Soil and Water Conservation District (SWCD) provides administrative and technical support to the NCRWMO through an annual Joint Powers Agreement. The Dakota County SWCD can be contacted at :

**4100 220th St West, Suite 102,
Farmington, MN 55024**

(651) 480-7777

www.dakotacountyswcd.org

2020 MEETING SCHEDULE

January 22nd

April 15th

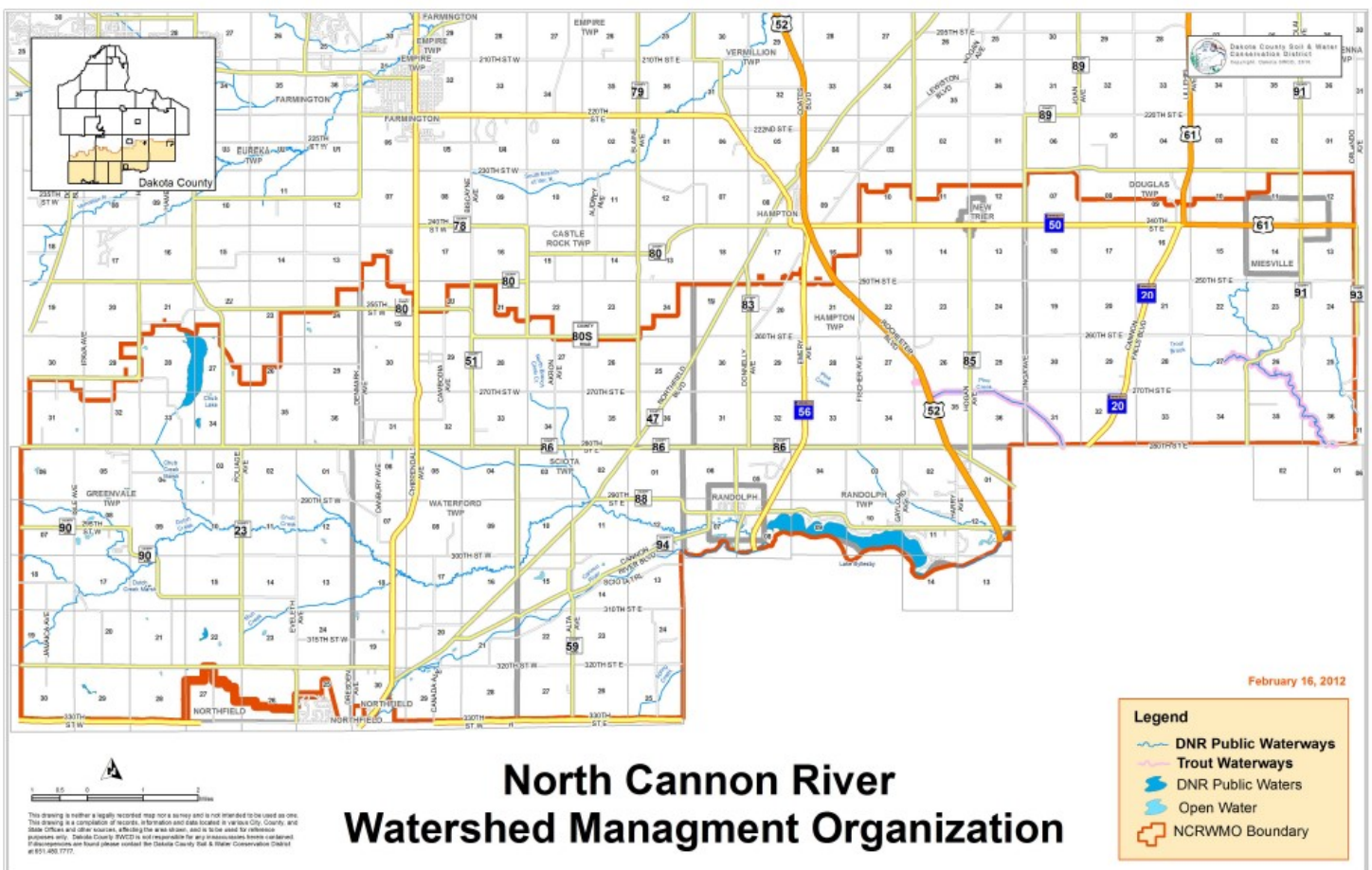
July 15th

November 18th

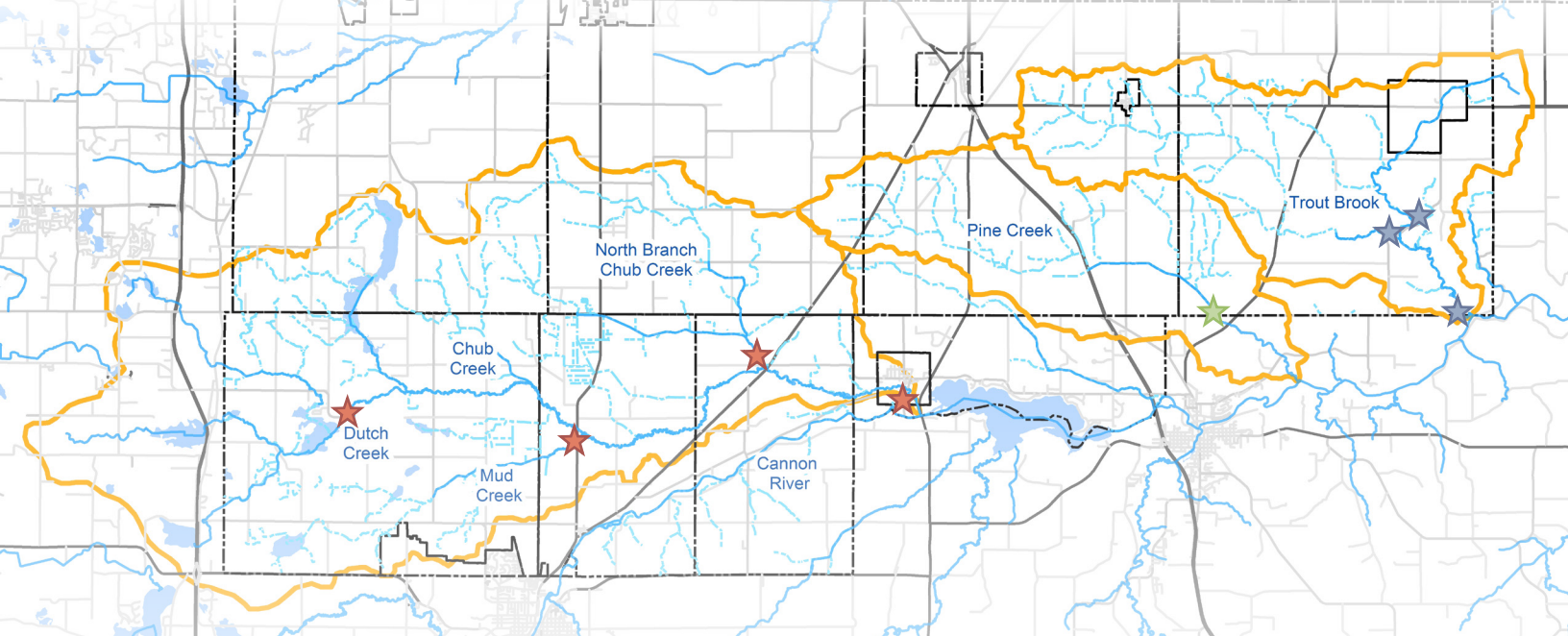
Locations to be Determined

BOARD OF MANAGERS

Member	Appointee
Castle Rock Township	Primary: Sandy Weber (Chair) Alternate: Vacant
Douglas Township	Primary: Jeff Reed Alternate: Vacant
Eureka Township	Primary: Donovan Palmquist Alternate: Vacant
Greenvale Township	Primary: Greg Langer Alternate: Wayne Peterson
Hampton Township	Primary: Dan Peine Alternate: Doug Wille
City of Miesville	Primary: Vacant Alternate: Vacant
City of New Trier	Primary: Vacant Alternate: Vacant
City of Randolph	Primary: Harlan Lichty Alternate: Vacant
Randolph Township	Primary: Mark Elliott Alternate: Don Dinesen
Sciota Township	Primary: Tony VanDeSteege Alternate: Duane Ness
Waterford Township	Primary: Frank Wergin (Treasurer) Alternate: Vacant



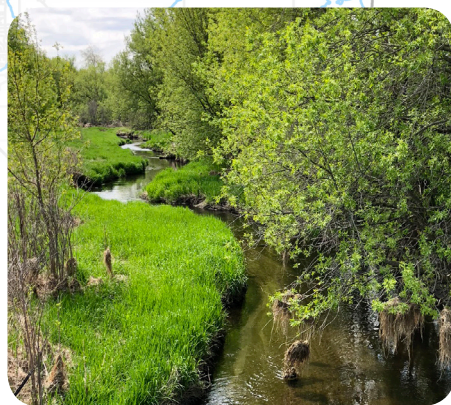
North Cannon River Watershed



Chub Creek Watershed

E. coli - Mud Creek has the highest concentration at 345 MPN/100mL

Nitrate - Exceeds drinking water standard at NB47 in all months



Pine Creek Watershed

E. coli - Low in April and May, began to elevate in June

Nitrate - Just at or exceeding the drinking water standard in all months



Trout Brook Watershed

E. coli - Low levels, began to elevate in June (TB2 highest)

Nitrate - Exceeds drinking water standard at all sites, highest at TB2 (west branch)

The following parameters were monitored: conductivity, dissolved oxygen, *E. coli*, nitrate, pH, total phosphorus, total suspended solids, transparency, and water temperature. The state water quality standards for *E. coli* and nitrate were violated at at least one site in all three subwatersheds in 2019. All other monitoring parameters were either at acceptable levels relative to the standard or there is no state standard to be evaluated against.

Water quality monitoring of several different chemical and physical parameters enables local decision makers and state agencies to evaluate streams within the Chub Creek, Pine Creek, and Trout Brook subwatersheds in order to implement appropriate management strategies to better protect and improve the overall health of each watershed.

Water quality monitoring in the North Cannon River Watershed is supported by the North Cannon River Watershed Management Organization and Dakota County Parks Department



Report prepared on behalf of the North Cannon River Watershed Management Organization and Dakota County Parks Department by the Dakota County Soil and Water Conservation District

