

BOARD OF WATER AND SOIL RESOURCES  
520 LAFAYETTE ROAD NORTH  
ST. PAUL, MN 55155  
WEDNESDAY, MARCH 23, 2022

AGENDA

9:00 AM CALL MEETING TO ORDER

PLEDGE OF ALLEGIANCE

ADOPTION OF AGENDA

MINUTES OF JANUARY 26, 2022 BOARD MEETING

PUBLIC ACCESS FORUM (10-minute agenda time, two-minute limit/person)

INTRODUCTION OF NEW STAFF

- Singer Macrae, Contracts Accountant
- Sumbal Rana, Office and Administrative Specialist

CONFLICT OF INTEREST DECLARATION

*A conflict of interest, whether actual, potential, or perceived, occurs when someone in a position of trust has competing professional or personal interests, and these competing interests make it difficult to fulfill professional duties impartially. At this time, members are requested to declare conflicts of interest they may have regarding today's business. Any member who declares an actual conflict of interest must not vote on that agenda item. All actual, potential, and perceived conflicts of interest will be announced to the board by staff before any vote.*

REPORTS

- Chair & Administrative Advisory Committee – Gerald Van Amburg
- Executive Director – John Jaschke
- Audit & Oversight Committee – Joe Collins
- Dispute Resolution and Compliance Report – Travis Germundson/Rich Sve
- Grants Program & Policy Committee – Todd Holman
- RIM Reserve Committee – Jayne Hager Dee
- Water Management & Strategic Planning Committee – Joe Collins
- Wetland Conservation Committee – Jill Crafton
- Buffers, Soils & Drainage Committee – Mark Zabel
- Drainage Work Group – Neil Peterson/Tom Gile

AGENCY REPORTS

- Minnesota Department of Agriculture – Thom Petersen
- Minnesota Department of Health – Steve Robertson
- Minnesota Department of Natural Resources – Sarah Strommen
- Minnesota Extension – Joel Larson
- Minnesota Pollution Control Agency – Katrina Kessler

## ADVISORY COMMENTS

- Association of Minnesota Counties – Brian Martinson
- Minnesota Association of Conservation District Employees – Nicole Bernd
- Minnesota Association of Soil & Water Conservation Districts – LeAnn Buck
- Minnesota Association of Townships – Eunice Biel
- Minnesota Association of Watershed Districts – Emily Javens
- Natural Resources Conservation Service – Troy Daniell

## COMMITTEE RECOMMENDATIONS

### *Grants Program and Policy Committee*

1. FY 22/23 Clean Water Fund Soil Health Grants – Tom Gile – **DECISION ITEM**
2. 2022 Request for Proposals for One Watershed, One Plan Planning Grants – Julie Westerlund – **DECISION ITEM**
3. Lawns to Legumes Phase 2 Demonstration Neighborhood Grant Program Funding Recommendation – Dan Shaw – **DECISION ITEM**

### *Central Region Committee*

1. Carnelian-Marine-St. Croix Watershed Management Plan – Michelle Jordan – **DECISION ITEM**

### *RIM Reserve Committee*

1. Reinvest in Minnesota (RIM) Easement #08-09-93-02 Alteration for Public Road Project – Karli Tyma – **DECISION ITEM**
2. Resolution Authorizing the Reinvest in Minnesota (RIM) Reserve – Working Lands Conservation Code and Cost Share Rates – Bill Penning – **DECISION ITEM**

## NEW BUSINESS

1. Value of BWSR Storytelling presentation – Mary Juhl and Ann Wessel – **INFORMATION ITEM**

## UPCOMING MEETINGS

- Grants Program and Policy Committee is scheduled for Monday, March 28, 2022, at 9:00 a.m. in the Lower Level Conference Rooms at 520 Lafayette Road North, St. Paul and by WebEx.
- Southern Regional Committee is scheduled for Wednesday, March 30, 2022, at 1:00 p.m. at Murray Soil and Water Conservation District, 2740 22<sup>nd</sup> Street, Slayton, and by Microsoft Teams.
- Grants Program and Policy Committee is scheduled for Monday, April 11, 2022, at 9:00 a.m. in the Lower Level Conference Rooms at 520 Lafayette Road North, St. Paul and by WebEx.
- Southern Region Committee is scheduled for Tuesday, April 19, 2022, at 9:30 a.m. in person, location TBD.
- Wetland Conservation Committee is scheduled for Thursday, April 21, 2022, at 9:00 a.m. location TBD and by Microsoft Teams.
- BWSR Board meeting is scheduled for Wednesday, April 27, 2022, at 9:00 a.m. in the Lower Level Conference Rooms at 520 Lafayette Road North, St. Paul and by WebEx.

## ADJOURN

## Internal Memo

Date: March 23, 2022

To: BWSR Board

From: Julie Westerlund, One Watershed, One Plan Program Coordinator

RE: One Watershed, One Plan Program Update

This memo gives an update on One Watershed, One Plan Planning efforts, including developments since the last program update for the BWSR board in August 2021.

The table below provides a summary of progress to date on the goals in BWSR's *One Watershed, One Plan Transition Plan*.

Year	Planning Grants Awarded (cumulative)		1W1P Completed (cumulative)
	Transition Target	Grants Awarded	
2014-15	5	5	0
2016	6 (11)	7 (12)	2
2017	6 (17)	6 (18)	2 (4)
2018	7 (24)	9 (27)	1 (5)
2019	7 (31)	3 (30)	5 (10)
2020	7 (38)	8 (38)	9 (19)
2021	7 (45)	11 (49)	5 (24)
2022	7 (52)	*	1 (25)

\*anticipate planning grants will awarded in August of 2022, keeping us on track with the transition plan.

I have also attached a map of participating planning boundaries and a list of the local governments that are participating in each planning effort for your information.

Please see planning websites (linked in the interactive map on the BWSR *One Watershed, One Plan – Participating Watersheds* web page) for more information about individual planning efforts.

In this memo, “plan” = comprehensive watershed management plan. “Collaborative” refers to an implementation structure in which the policy committee is advisory to the boards, who make final decisions. “Entity” refers to a new joint powers board that has been delegated authority to make decisions by the member entities. All dates are 2022 unless otherwise specified.

## Approved Plans

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The following planning partnerships have completed their plans and are now implementing them: Root River; Yellow Medicine River; Lake Superior North; Red Lake River; North Fork Crow River; Leech Lake River; Lake of the Woods; Pine River; Missouri River; Cedar Wapsipinicon; Thief River; Cannon River; Pomme de Terre River; Leaf, Wing, Redeye; Buffalo-Red River; Lower St. Croix; Nemadji; Wild Rice – Marsh River; Watonwan River; Bois de Sioux and Mustinka; Two Rivers Plus; Sauk River; Mississippi Headwaters; Greater Zumbro; Hawk Creek-Middle Minnesota.

## 2018 Starts

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**Rum River:** The partnership submitted the plan on March 11 with the intention of consideration by the Central Region committee and Board in May. The DNR has some concerns regarding the language related to the Anoka Dam; we will be working with the project partners to see if we can come to some mutually agreeable language or understanding.

**Shell Rock River and Winnebago Watershed:** The partnership started the 60-day review and comment period on the draft plan on November 1<sup>st</sup>, 2021. All state water quality agencies submitted comment letters within the 60-day comment period. The partnership held a public hearing on January 20<sup>th</sup> and submitted the plan for consideration by BWSR on February 17; the Southern Region Committee will discuss the plan on March 30<sup>th</sup> and will bring their recommendation to the Board on April 27<sup>th</sup>.

## 2019 Starts

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**Lower Minnesota River West:** The planning partnership discussed the draft implementation schedule and took recommendations to the Policy Committee for approval. Planning partners were asked to estimate staff time and expenses that organization spends on to water and natural resource management issues to balance implementation ambition with feasibility. Partners also assessed hydrologic benefits at 18 potential project sites across the 6 planning subwatersheds to set a water storage goal. They are looking a small, medium and large storage area in each of the planning watersheds using a HEC-HMS hydrologic model to generate results (e.g. impact on flows, storage) in a way that is scalable across the planning area. In late March, the steering team will discuss watershed modeling with HSPF SAM.

**Snake River:** The partnership is currently working on the targeted implementation schedule. The partners are doing excellent work thinking through how they will reasonably accomplish their goals, especially considering how few staff are at these local governments. This will help them quickly transition to implementation. The policy committee is working with the Snake River Watershed Management Board to craft a new Joint Powers Agreement that will meet the intent of both the original Snake River Watershed Management Board and fulfill the 1W1P program requirements. Their work on the JPA early in the process shows a commitment to the planning effort and a strong interest in looking into the future.

**St. Louis River:** The partnership developed goals and priority issue statements for their priority areas. They have been working on targeted actions for implementation, including holding an additional stakeholder meeting for partners that work specifically in the Duluth Urban watershed. The Policy committee will meet in April to approve the implementation items. Due to the size of the watershed and the amount of stakeholder

engagement, prioritization took more time than expected; BWSR granted a grant agreement extension to December 31<sup>st</sup> 2023 at the partnership's request.

## 2020 Starts

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**Clearwater River:** The partnership is making very good progress, including completing PTMApp and reviewing the data with the advisory committee. The steering committee had met fourteen times and the policy committee has met approximately every other month to review draft plan chapters. Because they were able to refine their implementation strategies rapidly, they've accelerated their timeline by about six months and are currently planning to initiate an internal/informal review in May or June, followed by the 60-day formal review. Anticipated consideration by BWSR board: Fall 2022.

**Des Moines River:** The partnership finalized and approved priority issues, priority areas and five separate planning regions. They established measurable goals and assigned short-term and long-term values, established input data, assumptions, and resource points for PTMApp, and prioritized resources for associated sub-watersheds. The DNR hydrologist presented an evaluation of hydrologic change in the watershed and the group discussed drainage management planning with local ditch inspectors. They also went over funding ratios for implementation and the implementation scenarios based on the model results. The policy committee approved the Introduction and Priority Issues sections and discussed the layout and content for the measurable goals section. In March the group will talk about options for implementation structures. Anticipated consideration by BWSR board: Fall 2022.

**Lac qui Parle- Yellow Bank:** The partnership completed the land and water narrative and have identified priority resources and issues sections of the plan. They have also completed an initial round of identifying geographical priority areas for each issue statement. They will soon be starting work on setting goals and discussing implementation. Anticipated consideration by BWSR board: Spring 2023.

**Le Sueur:** The partnership is making good time with their planning progress. They held an outdoor kick-off in September 2021. The advisory committee has been meeting monthly to assist in developing plan issue statements, goals, strategies, and actions. In early April they will hold a mid-point meeting for the citizens of the watershed to share plan progress and get additional feedback. They have also started talking about their organizational structure for implementation. They are on track with their timeline. Anticipated consideration by BWSR board: Summer 2023.

**Long Prairie:** The partnership is making steady progress and coming down the home stretch. They have finalized goals (agricultural land management, forest land management, phosphorus reduction, bacteria reduction and runoff reduction) and are developing implementation tables with actions, costs, and measurable improvements. SWCD and county staff were both equally involved in the planning process which is making for a well-rounded plan. The policy committee had a robust discussion about organizational structure and decided on a joint powers collaborative. They (PC) have been very engaged and have shown tremendous leadership in developing the plan. The plan is undergoing internal review now with the intention of a formal 60-day comment period this spring and consideration by BWSR in summer 2022.

**Middle-Snake Tamarac:** The partnership's committees continue to meet and are making great progress on plan development. All sections of the plan are drafted and, pending policy committee approval of plan sections,

the consultant will initiate for informal review of a full draft in late March and start the formal 60-day review in May. Anticipated consideration by BWSR: Fall 2022.

**Otter Tail:** The plan kicked off in earnest in September 2021 with the close of the initial comment period, two public open houses, and a bus tour. All five state water agencies submitted comments and presented their priority concerns to the technical advisory committee and on the bus tour. Also during the bus tour local staff pointed out the resource and land use characteristics. At the open houses in Detroit Lakes and Fergus Falls, participants offered input on potential issues and opportunities. In January the citizen advisory committee prioritized issues and developed a draft vision statement. The policy committee tentatively approved the Land and Water Narrative section and the resource issue statement priorities. They also agreed to expectations for and an approach to keeping the six individual LGU boards updated and informed. They are currently working on measurable goals and will start talking about implementation in early summer. They anticipate informal review of the plan in late summer, formal review in fall 2022, and consideration by BWSR in Winter 2023.

**Winona-La Crescent: Greater Zumbro River:** The partnership held a well-attended public kickoff in Winona (September 2021). The partners established their priority issues and identified priority subwatersheds/areas for the issues. They also developed measurable goals with help from PTMApp and other information. They are currently seeking further public input on the priority areas, goals, and implementation activities through a series of “waterside chats” across the planning area. In addition, the City of Winona began hosting the We Are Water exhibit on March 3<sup>rd</sup> which is being used to further engage citizens in the planning process.

## 2021 Starts

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**Chippewa River:** This partnership is using an established Joint Powers Agreement for their planning agreement. They have completed their work plan and received their planning grant. The partnership hired a consultant and issued their initial notification with responses due on March 22. They have a public kickoff meeting planned for April 5<sup>th</sup> in Glenwood. The partnership has drafted the Land and Water Narrative and issue statements and they have selected a logo for their plan.

**Kettle and Upper St. Croix:** All partners have signed the Memorandum of Agreement (MOA) for planning, completed a work plan, and received their planning grant. The partnership will soon have their second monthly policy committee meeting where they will approve hiring a consultant for facilitation services, start planning for a public kickoff meeting in June, appoint advisory committee members, and approve sending the initial notification to plan.

**Lower MN River East:** The partnership is in the process of getting signatures on their planning agreement (MOA); they have completed their work plan and will receive their planning grant when the final partners sign the MOA. The policy committee held its first (informational) meeting in December 2021. They are developing bylaws and sub-agreements and have distributed a request for qualifications for consulting services.

**Mississippi River Brainerd:** All partners have signed the planning agreement (MOA), submitted their work plan, and are in the process of completing their grant agreement. They are in discussions with consultants, including the Region Five Development Commission (facilitation services). The first policy committee meeting is set for March 28, 2022, when they will talk about the initial comment period, setting a date for the kickoff meeting and determining membership for the technical and citizens advisory committees.

**Mississippi River St. Cloud:** This partnership is facing a few early challenges regarding the formation of relationships and the understanding of how each partner will contribute and participate in the process. There have been a lot of discussions around the framing of the policy committee and the advisory committee structure and participation. In addition, there have been discussions related to how the organizations will retain features of the current water and watershed district plans within the new planning structure including such concepts as retaining statutory authorities and local levy expectations from the watershed district.

**Rainy River Headwaters-Vermillion:** All partners have signed the planning agreement (MOA), completed a work plan, and received their planning grant. BWSR staff has requested the opportunity to conduct an orientation training for the newly formed policy committee.

**Rainy-Rapid River:** All partners have signed planning agreement (MOA), completed a work plan, and received their planning grant. The initial comment period closed in November 2021. The partnership has a draft Land and Water Narrative and has started a series of four issue-based meetings. The kick-off meeting was delayed due to weather and Covid-19 with the hope of better engaging the small population of the watershed when the weather turns warmer.

**Roseau River:** All partners have signed the planning agreement (MOA), completed a work plan, and received their planning grant. The initial comment period closed in November 2021 and the partnership held a public kickoff meeting in Roseau in December 2021. During the first advisory committee meeting in March the partnership heard presentations from local governments and state agencies and had initial discussions around watershed issues. They have drafted a Land and Water Narrative and a list of issues.

**Sand Hill River:** All partners have signed planning agreement (MOA) and is in the process of completing their work plan. In March they will organize their policy committee, approve submitting their workplan, and decide on a schedule for their initial planning notification.

**South Fork of the Crow River:** All partners have signed the planning agreement (MOA), completed a work plan, and received their planning grant. They have hired a consultant and issued their initial planning notification. The initial comment period ended on March 7; only two state agencies submitted comments, so BWSR staff are working with the partnership and agencies to extend the comment period and get more agency input.

**Upper Minnesota River:** All partners have signed the planning agreement (MOA), completed a work plan, and received their planning grant. They issued their initial planning notification (comments due on April 4). They are in the process of hiring a consultant (they only had one response to their request for qualifications).

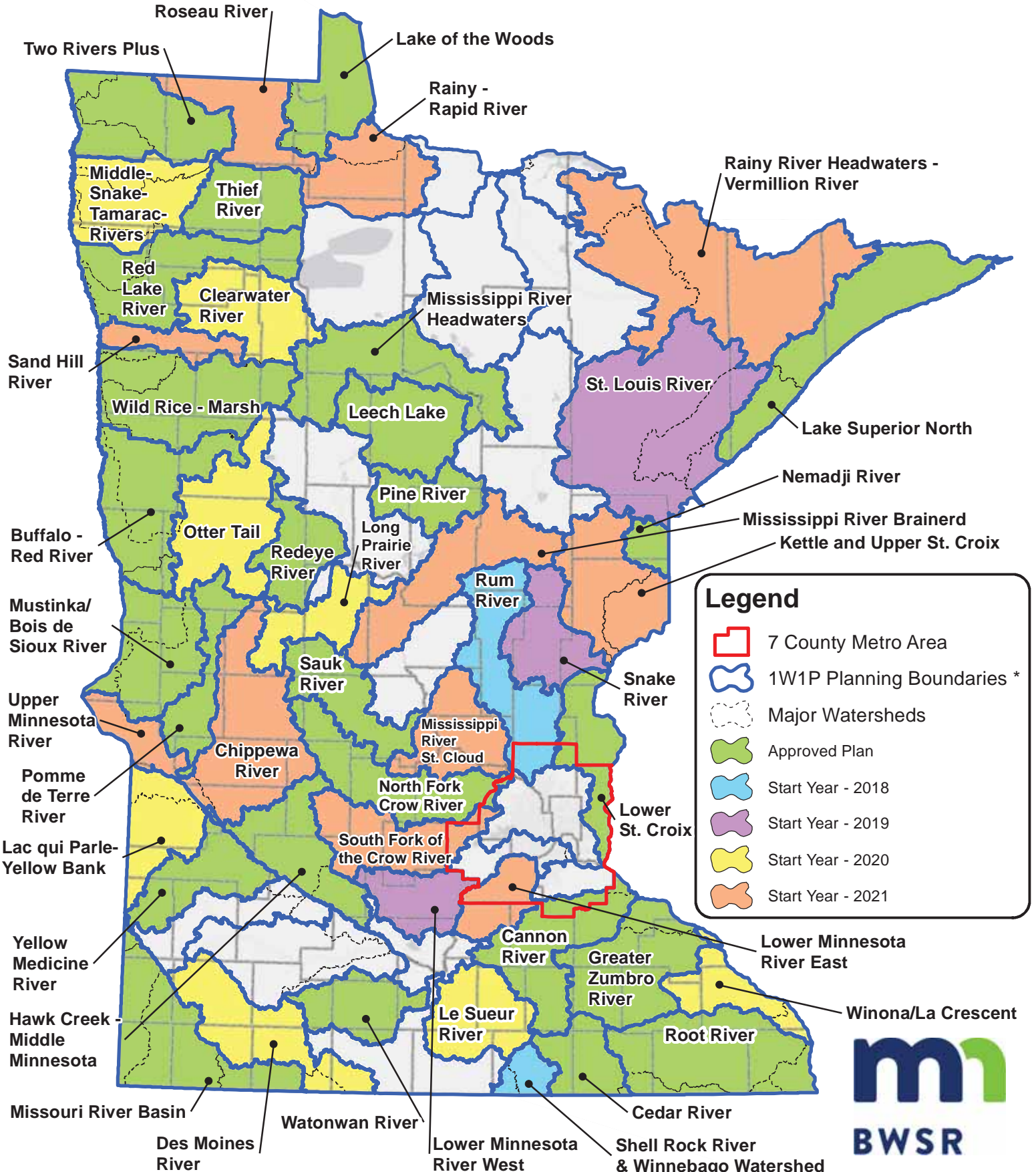
#### ATTACHMENTS:

Map of participating watersheds

List of participating local governments

# One Watershed, One Plan

## Participating Watersheds



\*Not legal boundaries; intended for planning purposes through One Watershed, One Plan only.







Local and Tribal Governments Participating in the One Watershed, One Plan program. (Names have been truncated to conserve space.) **Bold for 2021 = MOA complete.**

2021					
<b>Chippewa (16)</b>	<b>Kettle and Upper St. Croix (5)</b>	<b>Lower MN East (7)</b>	<b>Mississippi River Brained (10)</b>	<b>Mississippi River St. Cloud (12)</b>	<b>Rainy R Hdwtrs/Vermilion R (6)</b>
Chippewa County	Carlton County	Le Sueur County	Aitkin County	Benton County	Cook County
Chippewa SWCD	Carlton SWCD	Le Sueur SWCD	Aitkin SWCD	Benton SWCD	Cook SWCD
Douglas County	Kanabec SWCD	Lower MN River Watershed District	City of Baxter	Clearwater River Watershed Dist.	Lake County
Douglas SWCD	Pine County	Rice County	City of Brainerd	Meeker County	Lake SWCD
Grant County	Pine SWCD	Rice SWCD	Crow Wing County	Meeker SWCD	North St. Louis SCWD
Grant SWCD		Scott County WMO	Crow Wing SWCD	Mille Lacs SWCD	St. Louis County
Kandiyohi County	<b>South Fork of the Crow River (13)</b>	Scott SWCD	Morrison County	Sherburne County	
Kandiyohi SWCD	Buffalo Creek Watershed District		Morrison SWCD	Sherburne SWCD	
Otter Tail County	Carver SWCD	<b>Sand Hill River (8)</b>	Todd County	Stearns County	<b>Upper Minnesota River (7)</b>
Pope County	City of Winsted	East Polk SWCD	Todd SWCD	Stearns SWCD	Big Stone County
Pope SWCD	Kandiyohi County	Mahnomen County		Wright County	Big Stone SWCD
Stevens County	Kandiyohi SWCD	Mahnomen SWCD	<b>Rainy-Rapid (2)</b>	Wright SWCD	Swift County
Stevens SWCD	McLeod County	Norman County	Lake of the Woods County		Swift SWCD
Swift County	McLeod SWCD	Norman SWCD	Lake of the Woods SWCD	<b>Roseau River (3)</b>	Traverse County
Swift SWCD	Meeker County	Polk County		Roseau County	Traverse SWCD
West Otter Tail SWCD	Meeker SWCD	Sand Hill River Watershed District		Roseau River Watershed District	Upper MN River Watershed Dist
	Renville County	West Polk SWCD		Roseau SWCD	
	Renville SWCD				
	Wright County				
	Wright SWCD				
2020					
<b>Clearwater (9)</b>	<b>Des Moines (13)</b>	<b>Lac qui Parle- Yellow Bank (8)</b>	<b>Le Sueur (8)</b>	<b>Long Prairie (7)</b>	<b>Winona-La Crescent (10)</b>
Clearwater County	Cottonwood County	Area II Minnesota River Valley Project	Blue Earth County	Douglas County	City of Winona
Clearwater SWCD	Cottonwood SWCD	Lac qui Parle SWCD	Blue Earth County SWCD	Douglas SWCD	Houston County
East Polk SWCD	Heron Lake Watershed District	Lac qui Parle County	Faribault County	Morrison County	Olmsted County
Pennington County	Jackson County	Lac qui Parle – Yellow Bank WD	Faribault County SWCD	Morrison SWCD	Olmsted SWCD
Pennington SWCD	Jackson SWCD	Lincoln SWCD	Freeborn County	Todd County	Root River SWCD
Polk County	Lyon County	Lincoln County	Freeborn SWCD	Todd SWCD	Stockton-Rollingstone-MN City WD
Red Lake County	Lyon SWCD	Yellow Medicine SWCD	Waseca County	West Ottertail SWCD	Wabasha County
Red Lake SWCD	Martin County	Yellow Medicine County	Waseca SWCD		Wabasha SWCD
Red Lake Watershed District	Martin SWCD			<b>Otter Tail (6)</b>	Winona County
	Murray County			Becker SWCD	Winona SWCD
<b>Middle-Snake Tamarac (5)</b>	Murray SWCD			Becker County	
Marshall County	Nobles County			Cormorant Lakes Watershed District	
Marshall SWCD	Nobles SWCD			East Otter Tail SWCD	
Middle-Snake-Tamarac Rivers WD				Otter Tail County	
Polk County				Pelican River Watershed District	
West Polk SWCD				West Otter Tail SWCD	

2019

Lower Minnesota River West (7)	Snake (8)	St. Louis (6)
High Island Creek WD	Aitkin County	Carlton County
McLeod County	Aitkin SWCD	Carlton SWCD
McLeod SWCD	Kanabec County	Fond du Lac Band of Lk Superior Chippewa
Nicollet County	Kanabec SWCD	North St. Louis SWCD
Nicollet SWCD	Mille Lacs County	St. Louis County
Sibley County	Mille Lacs SWCD	South St. Louis SWCD
Sibley SWCD	Pine County	
	Pine SWCD	

2018

Hawk Creek Middle MN (6)	Nemadji (4)	Rum (17)	Mississippi Headwaters (10)	Wild Rice and Marsh (14)	Greater Zumbro (12)
Chippewa County	Carlton County	Aitkin County	Beltrami County	Becker County	Dodge County
Chippewa SWCD	Carlton SWCD	Aitkin SWCD	Beltrami SWCD	Becker SWCD	Dodge SWCD
Kandiyohi County	Pine County	Anoka SWCD	Cass County	Clay County	City of Rochester
Kandiyohi SWCD	Pine SWCD	Benton County	Cass SWCD	Clay SWCD	Goodhue County
Renville County		Benton SWCD	Clearwater County	Clearwater County	Goodhue SWCD
Renville SWCD		Crow Wing County	Clearwater SWCD	Clearwater SWCD	Olmsted County
	Redeye (5)	Crow Wing SWCD	Hubbard County	Mahnomen County	Olmsted SWCD
	Becker SWCD	Isanti County	Hubbard SWCD	Mahnomen SWCD	Rice County
Shell Rock - Winnebago (4)	East Otter Tail SWCD	Isanti SWCD	Itasca County	Norman County	Rice SWCD
Freeborn County	Otter Tail County	Kanabec County	Itasca SWCD	Norman SWCD	Wabasha County
Freeborn SWCD	Wadena County	Kanabec SWCD		Polk County	Wabasha SWCD
City of Albert Lea	Wadena SWCD	Mille Lacs County	Two Rivers Plus (4)	East Polk SWCD	Bear Valley WD
Shell Rock River WD		Mille Lacs SWCD	Kittson County	West Polk SWCD	
		Morrison County	Kittson SWCD	Wild Rice WD	
		Morrison SWCD	Roseau County		
		Sherburne County	Roseau SWCD		
		Sherburne SWCD			

2017

Buffalo-Red River (9)	Lower St. Croix River (15)	Mustinka/Bois de Sioux Rivers (13)	Pine River (4)	Sauk River (11)	Watonwan River (12)
Becker County	Anoka SWCD	Big Stone County	Cass County	Douglas County	Blue Earth County
Becker SWCD	Brown's Creek WD	Big Stone SWCD	Cass SWCD	Douglas SWCD	Blue Earth SWCD
Buffalo-Red River WD	Carnelian Marine St. Croix WD	Bois de Sioux WD	Crow Wing County	Meeker County	Brown County
Clay County	Chisago County	Grant County	Crow Wing SWCD	Meeker SWCD	Brown SWCD
Clay SWCD	Chisago SWCD	Grant SCWD		Pope County	Cottonwood County
Otter Tail County	Comfort Lake Forest Lake WD	Otter Tail County		Pope SWCD	Cottonwood SWCD
West Otter Tail SWCD	Isanti County	West Otter Tail SWCD		Sauk River Watershed District	Jackson County
Wilkin County	Isanti SWCD	Stevens County		Stearns County	Jackson SWCD
Wilkin SWCD	Middle St. Croix WMO	Stevens SWCD		Stearns SWCD	Martin County
	Pine County	Traverse County		Todd County	Martin SWCD
	Pine SWCD	Traverse SWCD		Todd SWCD	Watonwan County
	South Washington WD	Wilkin County			Watonwan SWCD
	Sunrise River WMO	Wilkin SWCD			
	Washington County				
	Washington SWCD				

2016

Cannon River (14)	Cedar River (11)	Pomme de Terre River (13)	Leech Lake River (4)	Missouri River Basin (14)	Thief River (7)
Belle Creek WD	Cedar River WD	Big Stone County	Cass County	Jackson County	Beltrami County
Dakota County	City of Austin	Big Stone SWCD	Cass SWCD	Jackson SWCD	Beltrami SWCD
Dakota SWCD	Dodge County	Douglas County	Hubbard County	Kanaranzi - Little Rock WD	Marshall County
Goodhue County	Dodge SWCD	Douglas SWCD	Hubbard SWCD	Lincoln County	Marshall SWCD
Goodhue SWCD	Freeborn County	Grant County		Lincoln SWCD	Pennington County
Le Sueur County	Freeborn SWCD	Grant SWCD		Murray County	Pennington SWCD
Le Sueur SWCD	Mower County	Otter Tail County	Lake of the Woods (5)	Murray SWCD	Red Lake WD
North Cannon WMO	Mower SWCD	West Otter Tail SWCD	Lake of the Woods County	Nobles County	
Rice County	Steele County	Stevens County	Lake of the Woods SWCD	Nobles SWCD	
Rice SWCD	Steele SWCD	Stevens SWCD	Roseau County	Okabena-Ocheda WD	
Steele County	Turtle Creek WD	Swift County	Roseau SWCD	Pipestone County	
Steele SWCD		Swift SWCD	Warroad River WD	Pipestone SWCD	
Waseca County		Pomme de Terre River Association		Rock County	
Waseca SWCD				Rock SWCD	

Pilots

Lake Superior North (4)	North Fork Crow River (14)	Red Lake River (7)	Root River (13)	Yellow Medicine River (10)
Cook County	McLeod County	Pennington County	Crooked Creek WD	Area II MN River Basin Projects, Inc.
Cook SWCD	McLeod SWCD	Pennington SWCD	Dodge County	Lac Qui Parle County
Lake County	Kandiyohi County	Polk County	Dodge SWCD	Lac Qui Parle SWCD
Lake SWCD	Kandiyohi SWCD	West Polk SWCD	Filmore County	Lincoln County
	Meeker County	Red Lake County	Filmore SWCD	Lincoln SWCD
	Meeker SWCD	Red Lake SWCD	Houston County	Lyon County
	Pope County	Red Lake WD	Root River SWCD	Lyon SWCD
	Pope SWCD		Mower County	Yellow Medicine County
	Stearns County		Mower SWCD	Yellow Medicine SWCD
	Stearns SWCD		Olmsted County	Yellow Medicine River WD
	Wright County		Olmsted SWCD	
	Wright SWCD		Winona County	
	Middle Fork Crow River WD		Winona SWCD	
	North Fork Crow River WD			



# The value of BWSR storytelling

Presented by:

Mary Juhl, BWSR Communications Coordinator

Ann Wessel, BWSR Information Officer

# Meet the Presenters



**Mary Juhl**  
Communications Coordinator



**Ann Wessel**  
Information Officer

# BWSR staff's involvement in storytelling



3/22/2022

[www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)

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**Part 1: Snapshots**

**Part 2: Conservation Stories**

**Part 3: The role of social media**

**Part 4: Questions**



# Part 1: BWSR Snapshots overview



# Snapshots at-a-glance

- Staff-written monthly newsletter
- 4 full-length articles per edition
- Distributed via GovDelivery to more than 2,000 subscribers
- Stories featured on BWSR website and social channels



# BWSR staff's role in storytelling

Every year, approximately 33 BWSR staff (not including communications staff) offer expertise, ideas, data, funding information, and LGU source connections (plus drafting and editing) to make BWSR Snapshots successful.



# Who is BWSR's audience for Snapshots?

**2,024** monthly subscribers including:

- BWSR Board members
- BWSR staff
- SWCD staff
- WD staff
- WMO staff
- Local water planners
- Partners (MASWCD, MAWD, MACDE, NRCS)
- Snapshots listserv (anyone can subscribe to Snapshots by signing up for this)



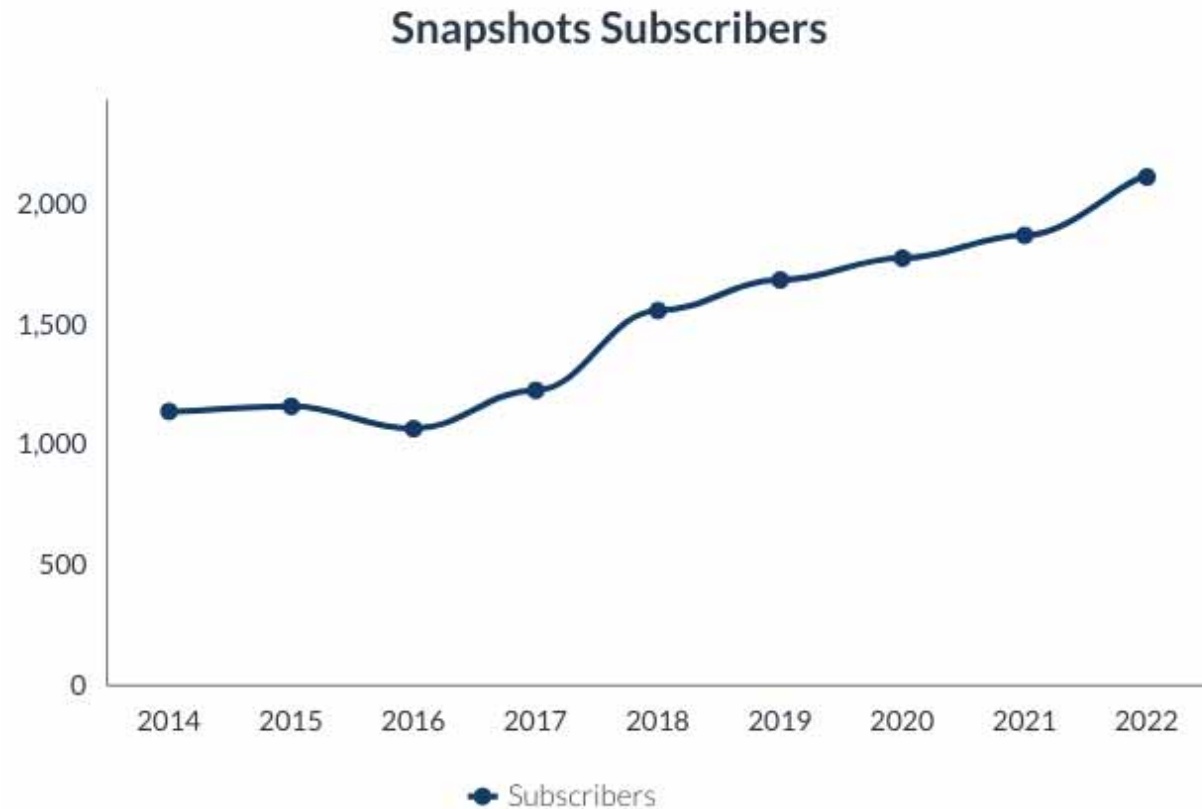
BWSR  
**Snapshots**

# Snapshots subscribers 2014-2022

Snapshots subscriptions have nearly doubled over the past eight years:

January 2014: **1,145**

January 2022: **2,121**

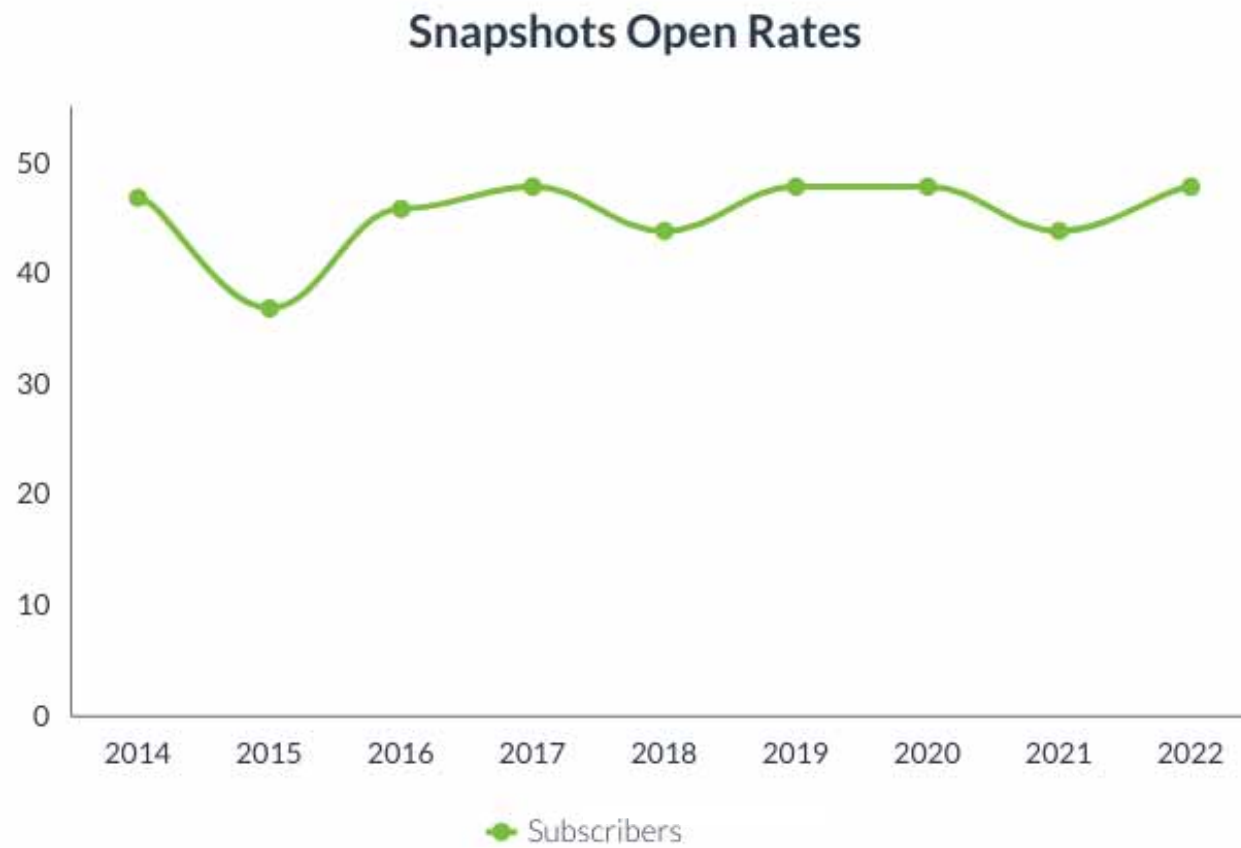


# What is an open rate?

An email open rate is the percentage of subscribers who open a specific email out of your total number of subscribers who received the mail. This metric is often used to gauge the success of email campaigns, such as monthly newsletters like BWSR Snapshots.



# Open Rates

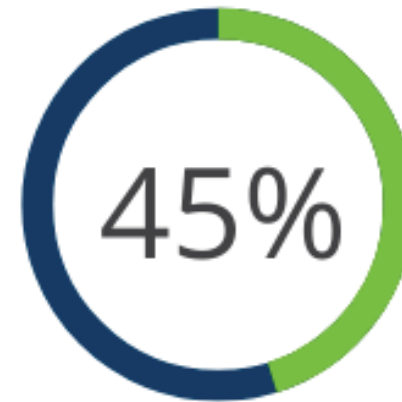


# Open Rates

**21.5%:** Average across all industries

**27.3%:** Average for Agriculture, Forestry, Fishing and Hunting organizations

**19.4%:** Average for Government organizations



BWSR Snapshots average open rate  
(2014-2022)

Source: Campaign Monitor, a major email marketing campaign corporation that tracks average open rates across a range of industries. Data taken from bulletins sent in 2021.



# Partner Feedback on Snapshots

---

John:

Excellent article! Please convey my congratulations to your staff. Very professional, comprehensive, and yet personable.

Thanks for sharing!

With your permission, at the end of the week I would like to forward it to LSOHC members.

Regards,

Mark

Mark Wm. Johnson  
Executive Director  
Lessard-Sams Outdoor Heritage Council  
651-296-6397

# Partner Feedback on Snapshots

I can't thank you enough for writing this article about the NW MN Water Festival. What a wonderful outreach article to help folks understand our mission to teach students about water and natural resources (even in the midst of a pandemic)! I especially loved how you were able to intertwine the teacher's thoughts about the event and the excitement and fun the students felt as they took part in the activities. That totally makes the article. I absolutely loved it!!

Thanks so much again,  
Stay safe and stay well,

Donna Christianson  
Outreach Coordinator  
Pennington SWCD

# How External Partners Use Snapshots

## MASWCD Monthly Newsletter

---

### Shared services help SWCDs operate efficiently

Soil and water conservation districts operate with lean staffs (and budgets) to implement conservation practices all over the state. In fact, the average district has fewer than six full-time employees. In this month's edition of the Board of Water and Soil Resources' *Snapshots*, learn how several SWCDs share staff and resources to operate efficiently.

To read the full story, [click here](#).

---



# How External Partners Use Snapshots

## Clean Water Council Newsletter

### Updates on Projects Supported by the Clean Water Fund

**BWSR Snapshots.** The Board of Water and Soil Resources (BWSR) has issued its monthly Snapshot project updates.

- [SWCDs Boosting Buffer Compliance](#): Ninety-nine percent of public waters in Minnesota and 98 percent of all waters are now compliant with the 2015 buffer law. BWSR profiles seven soil and water conservation districts and how they have achieved greater compliance in the counties of Blue Earth, Polk, Faribault, Pennington, Stearns, and Swift. The Clean Water Fund supports assistance, oversight, and grants for local governments in implementing and complying with the buffer law.
- [Bostic Bay \(Lake of the Woods County\)](#): "Lakes of the Woods Soil & Water Conservation District's (SWCD) \$350,000 channel stabilization on 2.75 miles of Judicial Ditch 28, which finished late this summer, was designed to curb bank erosion, improve water quality and protect fish passage to shallow, grassy spawning sites."
- [Outstanding SWCD Employee of the Year](#): BWSR has named Pennington SWCD's Peter Nelson the 2020 Outstanding Soil and Water Conservation District Employee. His efforts to coordinate the Thief River Comprehensive Watershed Management Plan are highlighted.
- [Watershed District Employee of the Year](#): BWSR has named Maggie Karschnia, water resources project manager of the Prior Lake-Spring Lake Watershed District, as 2020 Outstanding Watershed District Employee, focusing on her work on an integrated carp management program.

[More Details](#)

# How External Partners Use Snapshots

## Clean Water Fund Website

**3,300+ Funded Projects**



# How Snapshots give BWSR a legislative edge

BWSR communications staff tracks Snapshots by legislative district. This enables BWSR legislative staff to provide lawmakers with examples of BWSR projects in their home districts, localizing the importance of our work.



Clean Water Funds assist in unique Douglas County dairy transition  
[Project Video](#)



Farmers' conservation in the Glacial Hills benefits Lake Emily  
[Project Video](#)



Camp Ripley Buffers protect training mission, preserve habitat  
[Project Video](#)



Southeastern Minnesota septic system fixes bring groundwater protection



Mississippi River, trout streams benefit from feedlot upgrades  
[Project Video](#)



Rochester stream reconstruction provides multiple benefits  
[Project Video](#)



Becker County farm finds new ways to expand cattle operation  
[Project Video](#)



Crow Wing River protections benefit Twin Cities drinking water



Infestation sparks hope for diverse, resilient North Shore forest  
[Project Video](#)

3/22/2022

[www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)

## Conservation stories



# 2021 highlights: Clean Water Fund articles, multi-county

AGWEEK

## Farmland is part of Minnesota's plan to improve impaired waters

Grants from the Minnesota Board of Water and Soil Resources have been distributed in areas directly affecting impaired waters. 53 lakes, and segments of rivers and streams are proposed for delisting this year.



Outlet Creek flows from Lake Minnewaska to Lake Emily in Pope County. Contributed / Pope Soil and Water Conservation District

By Agweek Staff Report  
January 07, 2022 04:30 AM

SHARE   

Clean Water Funds from the Minnesota Board of Water and Soil Resources supported conservation work that contributed to some lakes, rivers and streams earning a spot on the list of waters slated to be removed from the state's impaired waters list in 2022.

3/22/2022

AGWEEK

Subscribers get access to our entire news network, including unlimited content across more than 20 Midwest news sites.

NORTH DAKOTA NEWS



MINNESOTA NEWS



[www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)

Picked up by AgWeek (part of Forum Communications), which focused on Pope and Grant counties

The Outdoor News plans to run the article

Featured by the Clean Water Council, other agencies



# Clean Water Fund: Northeastern region

NEWS

## Work to block phosphorus from Lake Irving nearing completion

A project by the Beltrami County Soil and Water Conservation District, the city of Bemidji and other partners to prevent phosphorus from entering Lake Irving is on track to be finished in early November.

Written By: Matthew J. Liedke | 7:00 am, Oct. 30, 2021



Zach Gutknecht, center, Beltrami County SWCD clean water specialist, visits the construction site of a stormwater treatment project on Sept. 9 in Bemidji with Shawn Tracy, right, HR Green lead scientist, and Chad Severts, SWCD board conservationist. An iron enhanced sand filter is part of the Clean Water Fund-backed stormwater project designed to improve the water quality of nutrient-impaired Lake Irving. The work will keep an estimated 233 pounds of phosphorus out of Lake Irving each year. (Courtesy / Ann Wessal)

**BEMIDJI --** A project meant to protect Lake Irving from phosphorus is expected to be finished early next month.

The Beltrami County Soil and Water Conservation District announced this week that a \$490,000 stormwater project is nearing completion. The project includes installing an iron-enhanced sand filter and creating a ditch that collects stormwater runoff from an 886-acre drainage area, which includes the Bemidji Industrial Park.

To cover the project, the SWCD partnered with the city of Bemidji, the Mississippi Headwaters Board of Water and Soil Resources and Enbridge. Financially, Enbridge contributed \$50,000, and the project also utilized a \$156,000 Clean Water Fund grant.

3/22/2022



**BELTRAMI SWCD/LAKE IRVING:**  
 Bemidji Pioneer, 10,715 circ.  
 The Outdoor News, 47,840 circ.  
 KROX radio (online)

www.bwsr.state.mn.us

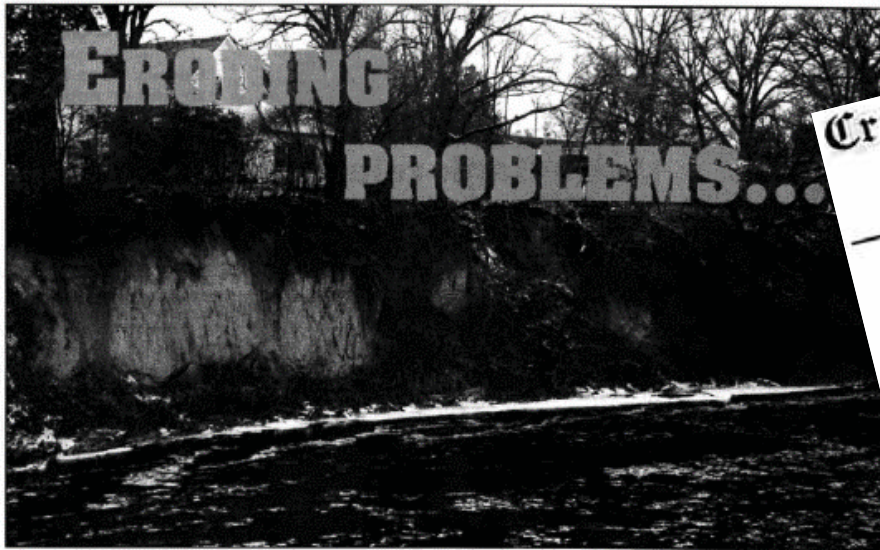


An iron-enhanced sand filter is part of the Beltrami County SWCD's Clean Water Fund-backed stormwater project designed to improve the water quality of nutrient-impaired Lake Irving, which flows into Lake Bemidji and then the Mississippi River. The stormwater project will keep an estimated 233 pounds of phosphorus out of Lake Irving each year. (Left to right): Zach Gutknecht, Beltrami County SWCD clean water specialist, checked on progress Sept. 9 in Bemidji with Tim Terrill, executive director of the Mississippi Headwaters Board; Shawn Tracy, HR Green lead scientist; and Chad Severts.

22

# Clean Water Fund: Northwestern region

**NORTHERN WATCH**  
 Date: Saturday, February 06, 2021  
 Location: THIEF RIVER FALLS, MN  
 Circulation (DMA): 22,700 (116)  
 Type (Frequency): Newspaper (W)  
 Page: 1,7  
 Section: Main  
 Keyword: Minnesota Board of Water & Soil Resources



Plans are proceeding for the Pennington Soil and Water Conservation District's stream bank stabilization project in Thief River Falls. (Submitted)

Submitted by the Minnesota Board of Water and Soil Resources

Pennington Soil and Water Conservation District's planned stream bank

"The goal is to reduce sediment entering the Red Lake River, which is contributing to an impairment," Peter Nelson said during a November 2019 stop at the Greenwood Street bridge.

— out of the Red Lake River annually.

The sites are among 10 priorities for reducing sediment and phosphorus that Houston Engineering identified in a water-quality study

**Crookston Daily Times**  
 Date: Wednesday, February 03, 2021  
 Location: CROOKSTON, MN  
 Circulation (DMA): 1,025 (116)  
 Type (Frequency): Newspaper (2WK)  
 Page: 11  
 Section: Main  
 Keyword: Minnesota Board of Water & Soil Resources

## Ditch fixes stabilize banks, stanch erosion

### Times Report

A Pennington Soil & Water Conservation District project within three county ditch systems that outlet into the Red Lake River cut landowners' immediate out-of-pocket

borne the full cost through ditch authority assessments. Instead, assessments will cover the balance.

"Clean Water Funds will be used to offset the cost to the ditch authority for fixing these erosion problems a cost

times cutting hundreds of feet into fields. "By having the side-inlets, it prevents erosion," said Pennington County Engineer Mike Flaagan, who administers the county highway de-

### PENNINGTON SWCD:

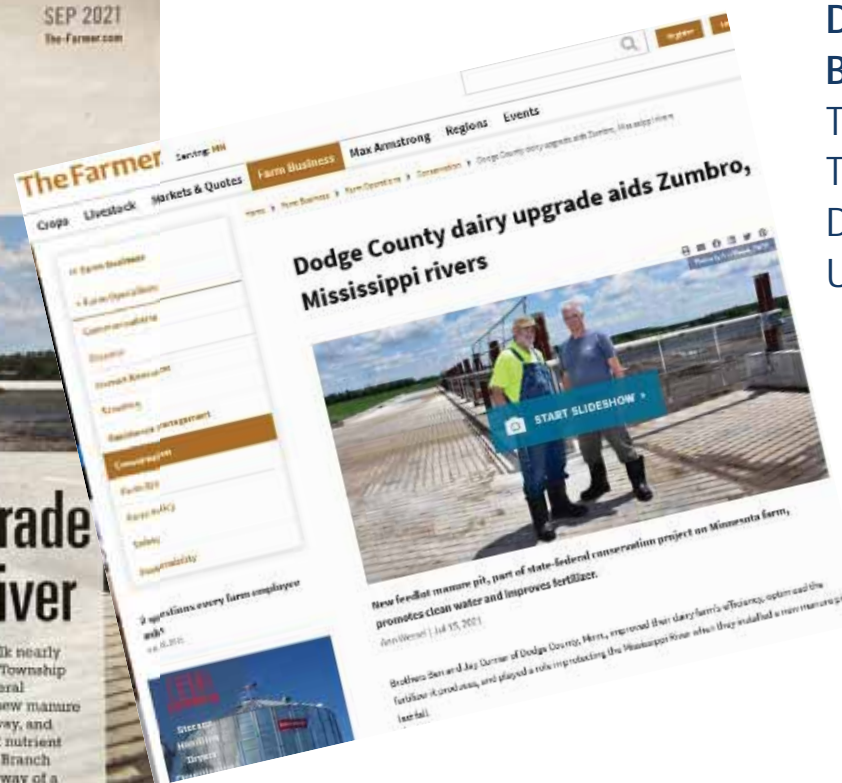
Northern Watch: 22,700 circ.

Crookston Daily Times: 1,025 circ.

# Clean Water Fund: Southeastern region



3/22/2022



www.bwsr.state.mn.us

DODGE SWCD:  
BWSR-NRCS RCPP  
The Farmer: 31,060 circ.  
The Outdoor News  
Dodge County Independent  
USDA

24

# Clean Water Fund: Southwestern region

Get local, statewide news. Daily 6a-6p. [Subscribe today.](#)

## PIPESTONE Pipestone SWCD, farmers turn to cover crops for nitrate reduction

Clean Water Fund grants give producers a try and health practices that benefit drinking water supply arrangements arise

Written by: [By Ann Stebbins, Minnesota Board of Water and Soil Resources](#) | 1:00 am, May 6, 2022



Tom Grabel and Laura DeBor discussed the progress of their cover crop implementation, in the background, on their 150-acre farm. A Clean Water Fund grant from BWSR is the key to the health practices meant to reduce nitrate. The Noble Pipestone SWCD used regional water resource specialists, consultants and farmers to help with the grant. Photo credit: Ann Stebbins/Minnesota Board of Water and Soil Resources.

**PIPESTONE COUNTY** — The cover crop growing up in Tom Grabel's field just outside Holland will reduce nitrate levels in the shallow aquifer that supplies drinking water to some of Lincoln Pipestone Rural Water's 4,700 customers.

The 14-acre field is part of Pipestone Soil & Water Conservation District's nitrate reduction effort targeting 1,312 acres of ag land here and in other highly vulnerable drinking water supply management areas affecting 14 people's municipal treatment systems.

A Clean Water Fund grant from the Minnesota Board of Water and Soil Resources offset the cost for Grabel to buy seed and hire someone with the expertise and specialized equipment necessary to plant cover crop and winter wheat after last fall's soybean harvest.



3/22/2022

## Adrian Secures Wellhead Protection by Ensuring Land Stays in Perennial Cover



City works with willing landowners, Nobles SWCD, Minnesota Rural Water Association on Clean Water Fund project to curb nitrate levels in drinking water.



**ADRIAN** — A Clean Water Fund-backed land purchase will lower nitrate levels in Adrian's drinking water supply by keeping intact more than 70 acres of perennial grass within the city's wellhead protection area, and by assisting a parcel along a creek that feeds these wells on the north edge of town.

The first Minnesota Board of Water and Soil Resources (BWSR) wellhead protection grant used to buy land, ensure the three parcels totaling 58.5 acres will continue to filter nitrates.

Expanding Conservation Reserve Program (CRP) contracts on two of the three parcels prompted the city of Adrian, Nobles Soil & Water Conservation District (NSWCD) and the Minnesota Rural Water Association to find a way to keep that property in permanent cover.

"If that land use were to change, it would have had a negative impact," said John Meyer, a water quality protection specialist with the nonprofit Minnesota Rural Water, he helped Adrian to develop its wellhead protection plan.

The third parcel was farmed through last fall's harvest, when it was prepared for spring seeding.

Sides with the best landowners, the Morgenthau Family Trust and Joe and Catherine Dorn, were finalized in early 2021.

"We've been trying cover crops. We've been trying all these other things. For the city to have a guarantee of their water quality, owning it was the next step," said

John Shea, Nobles SWCD manager. The SWCD will oversee the conservation plan for the parcels.

The city had leased the Morgenthau land for about two years, after the CRP contract expired.

"Now we are looking at some wellhead protection options to do more restoration to bring the land back to more of a natural state, so it's in the best condition to filter the water as it seeps into the ground," said Adrian City Administrator Jill Wolf, the city's fiscal agent for the project.

The SWCD and city this winter will determine what other nitrate-reducing practices to install with about \$500,000 in remaining grant funds. The \$426,500 Clean Water Fund grant, part of a legislative appropriation for wellhead protection that BWSR awarded through a request for proposals, covered 90% of the property's appraised value. The Kanranzi Little Rock Watershed District (KLWWD) contributed an \$80,000 match. The sale price was higher than the appraised value; the city's water fund made up the difference.

"It was the whole reason why we were able to proceed," Meyer said of the Clean Water Fund grant, which ran through December 2021.

"This grant allows us a whole lot more flexibility to work with individual landowners and individual communities to find what works best with these," Meyer said. "Without it we wouldn't have a project. It's as simple as that."

Meyer said past monitoring showed field tile lines contributed to higher nitrate levels. Keeping the land kept in perennial cover, installing plants' nitrogen uptake,

Keeping it out of row crops means nitrogen fertilizer isn't being added.

Meyer and Shea aim to work with farmers to find solutions.

"The ultimate goal is to implement enough changes — whatever those changes might be — to meet drinking water standards so the city doesn't have to have treatment in place," said Adrian Meyer, Minnesota Rural Water Association.

"With our rich soils, we use nitrates to grow corn and compete in the world market. We get laughing in some of these smaller wells. The only way to protect this in fall is to not allow nitrates to be added — and that pretty much takes the farming aspect out of it. That's not an option for the farmers," said Shea, who is also the KLWWD executive secretary.

The U.S. Environmental Protection Agency's standard for nitrates in drinking water is 10 parts per million (ppm). But treatment to stop nitrate levels means treating under 7 ppm for a certain length of time.

Conserving too much nitrogen can affect how the blood carries oxygen. The Minnesota Department of Health (MDH) links nitrates to blue baby syndrome.

Adrian opened a water treatment plant in 1998 to reduce nitrate levels. But water treatment equipment broke down for three months last five years ago, the

city supplied pregnant or breastfeeding customers with bottled water.

"The best goal would be to get our nitrate levels down to where we don't have to do treatment. A realistic goal is just to lower or maintain our costs for treating the water, and hopefully lower it," said Adrian Utilities Superintendent Adam Fleming, who has since taken a different job. Fleming also serves on Kanranzi-Little Rock Watershed District's board of trustees.

The city aims to keep nitrate levels under 3 ppm per million.

Three wells supply Adrian's 608 residential and business customers. Previously, three other wells were closed and the existing wells were dug about one block north to avoid a plume of volatile organic compounds (VOCs) and high nitrate.

Once a week, the city tests pre- and post-treatment nitrate levels. Once a month, it sends samples to Minnesota Valley Testing Laboratories.

The water treatment plant can reduce nitrate levels to 5 ppm or less. But more treatment requires more salt water, which costs more. To keep levels within limits, the plant mixes water from the three wells.

Well No. 6 is closest to the creek. It has tested highest for nitrates, with levels at times exceeding 30 ppm. In 2017, the city started pumping and treating water from well No. 6 to lower nitrate levels in the other wells by preventing the water from traveling through the aquifer to the north. Nitrate levels fluctuate throughout the year, depending partly upon rainfall totals and timing, and what crops were grown.

Since 2017, individual wells' pre-treatment nitrate levels have been as low as 4.5 ppm.

Over the past few years, Fleming said the levels had been trending downward.

"Since we started doing some of these different things, I have noticed a drop in our nitrates," Fleming said. "I couldn't tell you what's doing it because we're doing about five different things."

These include best management practices on cropland.

MDH grants offset the financial risk in farmers who planted cover crops within Adrian's 1,365-acre Drinking Water Supply Management Area (DWSMA). The Kanranzi Little Rock Watershed District added \$10 in the grant's \$40 in acre payment.

Reported with Permission: Minnesota Board of Water and Soil Resources (BWSR) Photo Credit: Jill Lane, BWSR

Two producers planted cover crops on 236 acres within the wellhead protection area in fall 2021. One of them, the farmer who farmed the Morgenthau land, enrolled 94 acres for a second year.

"These are our ultimate goals. This is what we'd like to see within our wellhead area," said Fleming before a Pipestone County-based regional water resource specialist who works with highly vulnerable wellhead protection areas in six northeastern Minnesota counties.

Fifteen producers own agricultural land within the DWSMA. One of those is the area classified as highly vulnerable.

The MDH implementation grant awarded in 2017 for the 2018 season was followed by another grant for 2019.

DeBor also has worked with producers to more efficiently and effectively deliver nitrogen fertilizer through manure management.

"What's going to be good for the wellhead protection area is also going to be good for the agriculture," DeBor said.

"It may not fix the problem, but it's definitely going to help, and it's going to guarantee that it's protected," — John Shea, Nobles SWCD manager

The SWCD will continue to work with farmers on cover crops, split nitrogen application and other practices that maintain productivity.

"This isn't the only shallow aquifer in Nobles County, so this is the first step," Shea said.

"I would like to see all of the upland farms using best management practices and still utilizing their property for their cash flow of their operation. If we can get it to work and put in permanent grass, that's even better. But I don't think everybody needs to give up farming in this watershed. I just want them to be aware that what they put on the field might affect their neighbor," Shea said.



# Clean Water Fund: Central region

**Chisago Lakes Delisted Thanks to Cooperative Effort**  
 With North Center and South Center lakes delisted from the regional water quality list, Chisago DNR will continue to work with landowners and community partners to enhance positive water quality trends emerging throughout the 20-lake chain.

**Center Lakes Association**  
 @centerlakesassoc

**Minnesota Board of Water and Soil Resources**  
 APR 22 at 2:57 AM  
 TWO CHISAGO COUNTY WATERS OFF LIST  
 Two of the lakes were delisted from the 20-lake chain because of their improved water quality. That's a win-win for the lakes and the community.

**Chisago County MINNESOTA**  
 COVID-19 INFO  
 Chisago County Minnesota

**WeatherMinds: Impaired waters**

**PreferredOne**  
 BEST DECISION WE'VE EVER MADE

**Two Chisago lakes achieve clean water restoration goals**

**A Win - Win for Clean Water**

3/22/2022

www.bwsr.state.mn.us

26



# BWSR's primary social media tools

## Social Media



- **3,300** followers
- New posts daily



- **1,520** followers
- New posts 5x/week



- **2,158** followers
- 3-5 posts weekly



- **126** subscribers
- Videos accompany CWF/Conservation stories
- Most videos under 3 minutes

# Medium blog

## Minnesota Board of Water and Soil Resources

Home Lists About

Dec 23, 2021

### Rotational grazing revives prairie

In a one-time, two-month pilot in Murray County, foraging sheep provided required CRP maintenance, spurring regrowth with hoof action, nibbling



Conservation 5 min read



Dec 23, 2021

### Delisting sampler: Clean Water Funds linked to lake, stream improvements

From across Minnesota, examples of BWSR-backed water quality work that contributed to proposed removals from the state's impaired waters list in...



Water 8 min read



Dec 1, 2021

### Soil health believers: Clay County farm family converts to cover crops, no-till

Despite setbacks, the Aakres have expanded practices they started with assistance from the USDA's Natural Resources Conservation Service....



3/22/2022

m Minnesota Board of Water and Soil Resources  
Dec 23, 2021 8 min read

### Delisting sampler: Clean Water Funds linked to lake, stream improvements

From across Minnesota, examples of BWSR-backed water quality work that contributed to proposed removals from the state's impaired waters list in 2022



Potlows Creek flows through Clark County to the Potomac de Tono River. A segment of the creek is among the waters slated for removal from the state's impaired waters list in 2022. Photo Credit: Grant SWCD



Clean Water Funds from the Minnesota Board of Water and Soil Resources supported conservation work that contributed to some lakes, rivers and streams earning a spot on the list of waters slated to be removed from the state's impaired waters list in 2022.

The Minnesota Pollution Control Agency is accepting comments through Jan. 7

[www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)

### STATS:

76 published stories  
84 subscribers

### 3 MOST-READ SINCE LAUNCH:

1.1K getting started w/native plantings  
421 Rice Creek WD carp experiment  
387: Lawns to Legumes-related

### 3 MOST-VIEWED:

2.2K Getting started w/native plants  
1K Rice Creek WD  
885 Shoring up support for Blue Lake: Isanti SWCD





MNBWSR

126 subscribers

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Uploads

SORT BY



Serpent Lake Targeted Watershed

277 views • 2 weeks ago

CC



Pelican River Watershed District: Rice Lake Wetland...

85 views • 1 month ago

CC



Beltrami SWCD

101 views • 4 months ago

CC



Improving Soil Health in Clay County

126 views • 5 months ago

CC



Coleraine's stormwater solution

87 views • 6 months ago

CC



Targeting Pickerel Lake

93 views • 6 months ago

CC



Sauk River Watershed: ESMC Pilot Project

92 views • 8 months ago

CC



Dodge County Dairy's Feedlot Fix Benefits Mississippi River

46 views • 9 months ago

CC



Pipestone SWCD: Drinking water protection

65 views • 10 months ago

CC



Pope County NRCS Rotational Grazing

288 views • 1 year ago

CC



Pennington SWCD: Red Lake River streambank...

97 views • 1 year ago

CC



Pennington SWCD

79 views • 1 year ago

CC

# Top 3 Tweets of 2021



**MN BWSR** @MNBWSR

It's national **#PollinatorWeek** 🐝 Check out our **#Lawns2Legumes** Planting for Pollinators Habitat Guide for tips on creating and maintaining pollinator plantings in your yard: <https://bit.ly/2Sh03wH>  
<pic.twitter.com/cmAoJxdGjc>



**MN BWSR** @MNBWSR

**#Lawns2Legumes** is now accepting applications for individual support grants. Gardeners can apply for up to \$300 in reimbursement funds to create residential pollinator habitat. Learn more: <https://bit.ly/3jbTKVH>  
 \*Photo contributed by a Lawns2Legumes gardener <pic.twitter.com/DdUchgh7W>

**MN BWSR** @MNBWSR

Application deadline: 5/28/21 @MNBWSR @MnPCA & @conservcorps among #Minnesota agencies, orgs giving under-represented students a close-up view of **#careers** in **#NaturalResources**, **#conservation** via Increasing Diversity in Environmental Careers. @mndnr:  
[https://www.dnr.state.mn.us/news/2021/02/18/career-pathway-program-seeking-applicants ...](https://www.dnr.state.mn.us/news/2021/02/18/career-pathway-program-seeking-applicants...)

3/22/2022

Impressions	58,803
<b>Total engagements</b>	<b>280</b>
Media engagements	98
Detail expands	58
Link clicks	55
Impressions	9,438
<b>Total engagements</b>	<b>307</b>
Link clicks	103
Detail expands	71
Retweets	42
Likes	40
Impressions	3,119
<b>Total engagements</b>	<b>53</b>
Detail expands	13
Likes	11
Link clicks	11

www.bwsr.state.mn.us

**2021 Top 3 tweets**  
 The daily impressions generally average 450+

It's easy for lawmakers and other agencies to share via Twitter.

31



# Top 3 Tweets, Jan. 1 – March 21, 2022



**MN BWSR** @MNBWSR  
 L-R: Slayton-based @NRCS\_MN #Soil #Conservation Tech Allisa Wendland ID'd #plants in a rotationally grazed #MurrayCounty #Minnesota #prairie w/@pheasants4ever Farm Bill #Biologist Megan Howell, part of a one-time experiment on CRP land. #MnBWSR Snapshot:

**MN BWSR** @MNBWSR  
 Habitat Friendly Solar Summit. 9AM-4PM, 3/9/22. Free. Virtual. Presentations feature @FreshEnergy @GreatPlainsInst @UMNlonE @mndnr @StearnsCountyMN and @MNBWSR. Details: <http://www.bwsr.state.mn.us/minnesota-habitat-friendly-solar-program> ... #solar #habitat #pollinators <https://twitter.com/FreshEnergy>



**MN BWSR** @MNBWSR  
 Deadline's 2/3/22 (next week!) to apply for #MnBWSR #Lawns2Legumes Demonstration Neighborhood grants. Eligible: #Minnesota cities, counties, SWCDs, watershed districts, #nonprofits, #TribalNations. Details: <https://bwsr.state.mn.us/node/4971> @MinnesotaCities @MNcounties @MnSWCDs @mnwd46 pic.twitter.com/kJPBSKY9U

Impressions	2,849
Total engagements	23
Media engagements	6
Likes	6
Detail expands	4
Impressions	1,816
Total engagements	29
Detail expands	11
Likes	9
Retweets	5
Impressions	1,640
Total engagements	65
Link clicks	19
Detail expands	15
Likes	11
Retweets	8
Media engagements	5

**Not pictured:** An image featuring 4 BWSR staffers who agreed to appear in an International Day of Women & Girls in Science post reached 1,409

# Facebook: Total 2021 reach

Facebook Page Reach

89,989 ↓ 17%



Instagram Reach

4,487 ↑ 5.6%



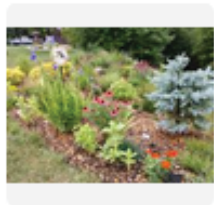
**REACH:** The number of people who see a post at least once. Reach is different from impressions, which may include multiple views of the post by the same people. This metric is estimated.

**ONE BIG REASON WHY IT'S DOWN OVER 2020:** Lawns to Legumes was announced in 2020.

# Facebook: Top 6 posts of 2021

Content ⓘ

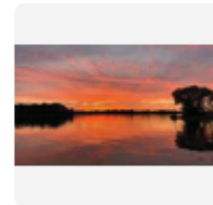
Sort by: Reach ▼



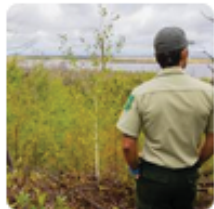
Aug 26, 2021  
**Lawns to Legumes is now a...**  
Post  
Reach 30.4K



Nov 5, 2021  
**BWSR's Lawns to Legumes ...**  
Post  
Reach 10.2K



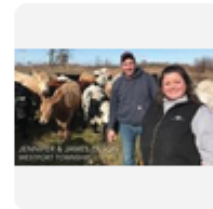
Apr 22, 2021  
**TWO CHISAGO COUNTY LA...**  
Post  
Reach 4.7K



Sep 14, 2021  
**"Ecologically speaking, we s...**  
Post  
Reach 4.5K



Jul 22, 2021  
**Two rain gardens installed t...**  
Post  
Reach 3.5K



Mar 5, 2021  
**Jennifer Olson is working wi...**  
Post  
Reach 2.8K

# Facebook: Top 6 posts, Jan. 1 – March 21, 2022

Content ⓘ

Sort by: Reach ▼



Thu Feb 10, 6:09am

**BEE THE CHANGE** Lawns to Le...

Post

Reach 60,742



Fri Feb 4, 7:09am

**Backyard bounty: Planting for ...**

Post

Reach 21,049



Fri Feb 25, 7:19am

**To date, Sentinel Landscapes h...**

Post

Reach 5,616



Wed Feb 16, 7:11am

**WHAT: The Second Habitat Fri...**

Post

Reach 3,028



Wed Jan 5, 6:37am

**Three of the current full-time j...**

Post

Reach 2,700



Mon Feb 14, 2:39pm

**Join us at the agency that adm...**

Post

Reach 2,276

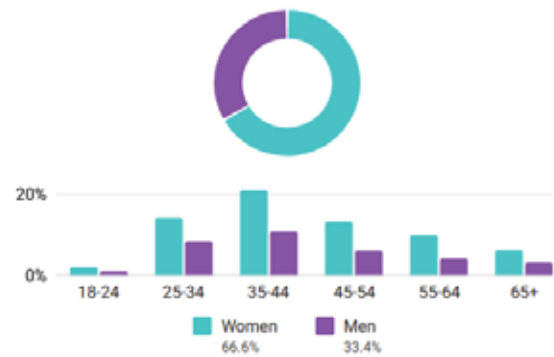
Year-to-date: 18 posts reached 1,000 or more viewers

# Facebook: Who's viewing

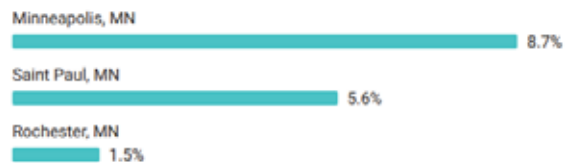
Facebook Page followers ⓘ

3.2K

Age & Gender ⓘ



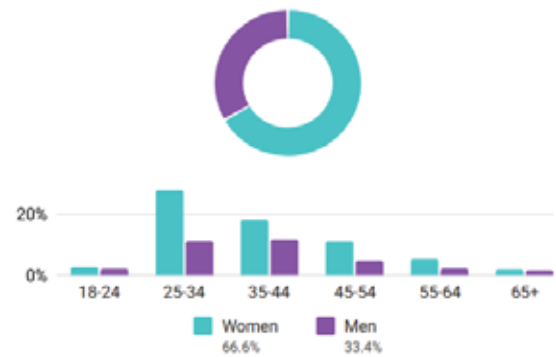
Top Cities



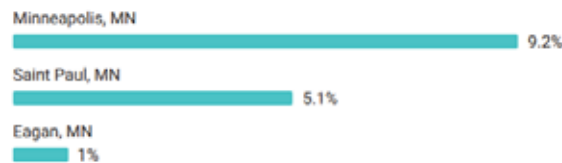
Instagram Followers ⓘ

1.5K

Age & Gender ⓘ



Top Cities



**WHO:** Gender and age breakdown is not surprising across social media.

**WHERE:** MSP is also no surprise, partly because of access.



# Top 5 Snapshots of 2021 in terms of Facebook reach...

**Minnesota Board of Water and Soil Resources**  
August 16, 2021

The Minnesota Board of Water and Soil Resources and its partners are updating 70-plus state seed mixes designed to target specific conservation goals or ecological features and conditions. BWSR worked with the Minnesota Department of Natural Resources and Minnesota Department of Transportation to develop the first mixes. Details: <http://www.bwsr.state.mn.us/.../Snapshots-story-4-August-2021...> #plants #conservation



1,920

41 1 Comment 13 Shares

**Minnesota Board of Water and Soil Resources**  
March 24, 2021

A new, free resource designed to equip Minnesota #conservation professionals with a solid foundation of knowledge, the Technical Training and Certification Program's Core Competency Conservation Training series, is now available online. #MnBWSR's March Snapshot newsletter article has details: <http://www.bwsr.state.mn.us/.../Snapshots-story-4-March-2021...> NRCS Minnesota Association of Soil & Water Conservation Districts Minnesota Association of Watershed Districts Minnesota Association of Conservation Professionals Minnesota Department of Natural Resources Minnesota Pollution Control Agency



1,225

15 1 Comment 9 Shares

**Minnesota Board of Water and Soil Resources**  
July 8, 2021

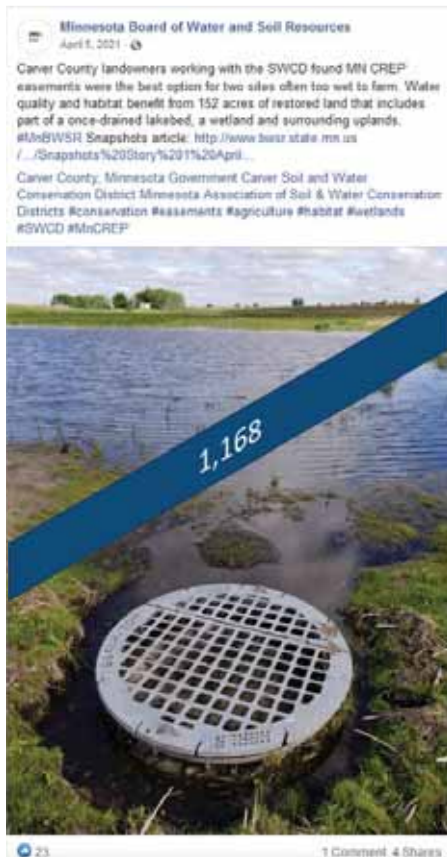
Dan Shaw, @MnBWSR's senior ecologist and vegetation specialist, shares advice for getting started with native plantings. July Snapshot newsletter article: <http://www.bwsr.state.mn.us/.../Snapshots-story-4-July-2021-E...> #gardening #plants #wildflowers #NativePlants #landscaping #Minnesota



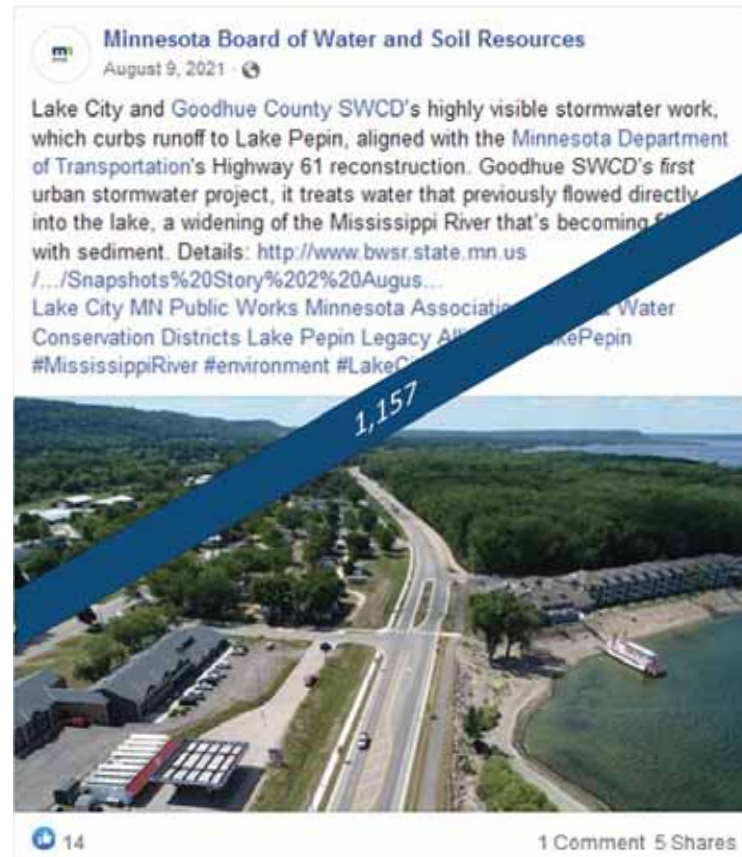
1,178

31 8 Shares

# ...Top 5 Snapshots of 2021 in terms of Facebook reach



3/22/2022



www.bwsr.state.mn.us

## 2021 SNAPSHOT STATS: As of mid-January...

- 5 cracked 1,000
- 15 cracked 750
- 24 cracked 500

- ## OTHER HIGHLIGHTS:
- 950: Le Sueur/Jefferson
  - German Chain of Lakes
  - 912: Climate Week event

# Cracking 500: Three more examples

**Minnesota Board of Water and Soil Resources**  
September 13, 2021

Water quality will benefit from a gully fix that flummoxed landowners and landscapers. Rice Soil and Water Conservation District and Southeast #SWCD Technical Support JPB staff worked with neighboring landowners to overcome COVID-19 shortages and price fluctuations in a revised design. #MnBWSR Snapshots newsletter: <https://bwsr.state.mn.us/.../Snapshots%20Story%203%20September...>  
Minnesota Association of Soil & Water Conservation Districts  
#WaterQuality #lakes #CleanWaterFund #water #RiceCountyMN



10 2 Shares

**Minnesota Board of Water and Soil Resources**  
December 13, 2021

Strong interest in the NRCS-funded, #MnBWSR-supported Agricultural Wetland Bank program led to a second grant, and more opportunities for farmers to generate credits through wetland restorations. December Snapshot article: <https://bwsr.state.mn.us/.../Snapshots%20Story%201...>  
#wetlands #farming #agriculture #NRCS



Boost this post to get more reach for Minnesota Board of Water and Soil Resources. Boost post

11 2 Shares

**Minnesota Board of Water and Soil Resources**  
December 20, 2021

Members of the Lower St. Croix Watershed Partnership are expanding upon shared services to achieve some of the shared goals in the partnership's comprehensive watershed management plan. December Snapshot article: <https://bwsr.state.mn.us/.../Snapshots-story-3-December...>  
Washington Conservation District Chicago Soil & Water Conservation District #MAWD #SWCD  
#conservation #education #watershed



Boost this post to get more reach for Minnesota Board of Water and Soil Resources. Boost post

5 2 Shares

Thank you!



Questions?



# Red Lake SWCD's Clearwater focus



## PROJECT PARTNERS:

In addition to landowners and the Red Lake River Watershed District, partners have included Red Lake County, which helped with technical and engineering costs; and Enbridge, which has supported the SWCD's work throughout the county with two Ecofootprint grants — \$78,905 in 2015 and \$74,000 in 2016.

## Clean Water Funds support agricultural practices that mend field-splitting gullies, save topsoil, improve water quality of sediment-impaired Clearwater River



**R**ED LAKE FALLS — With farmers eager to stop field erosion, a map of prioritized projects, and Clean Water Funds to support the work, the Red Lake County Soil & Water Conservation District (SWCD) is tackling gully fixes designed to improve water quality in the sediment-impaired Lower Clearwater River.

“They’re really trying to save their own land,” said SWCD Board Chairman David Miller, who also farms in the county. “They don’t want to lose their topsoil. They don’t want to lose their ability



## TECHNICAL ASSISTANCE:

Since the Red River Valley Conservation Service Area-Technical Service Area (TSA) was under-staffed, the SWCD found other ways to accomplish survey, design and construction work — hiring a retired TSA engineer in 2020, and contracting with Houston Engineering in 2021.

**Top:** From left: Red Lake County SWCD technician Bob Bohland, SWCD Manager Tanya Waldo, landowner Joe Ste. Marie and SWCD Board Chairman David Miller visit a Clean Water Fund-backed SWCD project on Sept. 9, 2021, in Terrebonne Township. The grade stabilization at the edge of Ste. Marie's field curbs erosion and treats runoff from a 100-acre watershed before it enters a Lower Clearwater River tributary. **Middle:** The Clearwater River draws anglers and paddlers. **Bottom:** A diversion and an intake structure channel and slow runoff. A pipe carries the water, which is filtered before it reaches the river. **Photo Credits:** Ann Wessel, BWSR



Joe Ste. Marie talked with Red Lake County SWCD staff about the improvements he's seen since a grade stabilization structure was installed at the edge of his Terrebonne Township field. A 30-inch-wide, 130-foot-long pipe now carries water from the field to this point, where it is filtered before reaching a Clearwater River tributary.

to drain their fields and lose acreage. They see these projects as a way to stop that erosion and improve the landscape.”

The Minnesota Board of Water and Soil Resources (BWSR) awarded the SWCD a Clean Water Fund grant in 2015 to complete survey work, rank potential projects, meet with landowners and install the first round of best management practices. Implementation grants followed in 2020 and 2021. The three grants total \$609,060 and support \$761,330 in work estimated to keep 1,257 pounds of phosphorus and 1,710 tons of sediment — the equivalent of 132 dump truck loads — out of the Clearwater River each year. The work will keep an estimated 4,326 tons of topsoil in fields.

To date, the SWCD has worked with nine landowners to implement 33 projects tied to those grants. Two more

**“ The water comes down here and it just kept eroding and eroding, and I was getting a big washout. Towards the end it was getting 20 feet deep and 8, 10 feet wide. ”**

— Joe Ste. Marie,  
Terrebonne Township farmer

are in the works; six more are planned.

Joe Ste. Marie, who grows 480 acres of wheat and soybeans, is among those who signed on. In September 2021, he stood at the edge of 60 acres in Terrebonne Township where a gully once sliced into his field and sent topsoil down a cliff to a Clearwater River tributary.

“The water comes down here and it just kept eroding and eroding, and I was getting a big washout. Towards the end it was getting 20 feet deep and 8, 10 feet wide,” Ste. Marie said.

The Clean Water Fund-backed grade stabilization completed

in October 2020 curbs erosion and treats runoff from a 100-acre watershed. A diversion and intake channel the runoff, slow it down and allow sediment and the pollutants it carries to settle out. A 130-foot-long, 30-inch-wide pipe carries the water, which is then filtered before it reaches the river.

Ste. Marie contacted SWCD Manager Tanya Waldo after he saw similar projects working in neighbors’ fields. Visible results and available funds have prompted more landowners to visit the SWCD’s three-person office.

“She’s very good at working with landowners, and very

## SIGNS OF IMPROVEMENT:

Evidence of water quality improvements are surfacing elsewhere in the Red Lake watershed. Where the Red Lake and Red rivers meet, the rate of exceedance of the total suspended solids’ water quality standard dropped from 37.5% for the 2005-14 testing period to 25% for 2012-21. Hanson said contributors may include conservation work accomplished through One Watershed, One Plan; buffer law implementation; and lack of runoff during 2021 drought conditions. “It’s still very significantly impaired, but it’s also improved several percentage points,” Hanson said.

**2022 GRANT AWARDS:** In 2022 the Red Lake County SWCD received two Clean Water Fund grants from BWSR: \$231,200 to install ag practices in the Hill River subwatershed, a Clearwater River tributary; \$95,000 for multipurpose drainage management centered on County Ditch 57, which drains to the Clearwater.

successful at getting grants, too,” Red Lake Watershed District Water Quality Coordinator Corey Hanson said of Waldo, who has worked for the SWCD for 25 years. “I’m sure a lot of them know her and trust her, and she’s able to really get things done.”

The Red Lake Watershed District includes seven soil and water conservation districts, which it can provide with matching funds. In 2021, the watershed district contributed nearly \$22,000 to the Red Lake County SWCD for its sediment reduction work affecting the Clearwater and Red Lake rivers.

Since 2011, the SWCD has received \$1.9 million in Clean Water Funds from BWSR to implement agricultural practices that reduce sediment, plus drainage ditch work and multipurpose drainage management.

“Without the Clean Water Funds, we wouldn’t be able to do these projects. These projects have really brought awareness to the SWCD — probably brought more awareness to landowners as far as erosion that is occurring on their land,” Waldo said, “giving them the desire to fix problems before they become worse.”

Miller said Red Lake County farmland is especially

**“ If we’re reducing sediment, we’re also reducing phosphorus, so we focus on the sediment. ”**

— Corey Hanson, Red Lake Watershed District

susceptible to erosion because the primary crops — wheat and soybeans — leave little residue. Topography is another factor. Without grade checks, the steep slopes from the beach ridges to the valleys of the Red River and its tributaries are ripe for gully formation.

The lower reach of the Clearwater River, which joins the Red Lake River in Red Lake Falls, is impaired for total suspended solids. Hanson, whose duties include monitoring, said trend analysis in the Clearwater River Watershed Restoration and Protection Strategy report indicated that water quality conditions have been improving in the Clearwater



**“ Without the Clean Water Funds, we wouldn’t be able to do these projects. These projects have really brought awareness to the SWCD — probably brought more awareness to landowners as far as erosion that is occurring on their land. ”**

— Tanya Waldo, Red Lake County SWCD manager



River near Plummer and in Terrebonne Township.

“If we’re reducing sediment, we’re also reducing phosphorus, so we focus on the sediment,” Hanson said.

Water quality projects affecting waters that drain north to Canada, including the Clearwater and Red Lake rivers, help with nutrient load reductions recommended by the [International Joint Commission](#) to address the chronic algal blooms in Lake Winnipeg.

The Clearwater River flows 147 miles from its headwaters near Bagley to the Red Lake River in Red Lake Falls. Within

Red Lake County, part of the river was channelized for drainage, and commercial wild rice paddies drew water from the river and then drained it back into the river after harvest. The river also draws paddlers and anglers to the county.

“Red Lake County doesn’t actually have any natural lakes, so we rely on the rivers that come through the county — the kayakers, the tubers, people that count on the rivers to expand their weekends and just enjoy nature,” said Red Lake County SWCD technician Bob Bohland, who has since left the SWCD. “We’re keeping phosphorus, we’re keeping nitrate, we’re keeping potassium out of the river system. It’s creating cleaner water, less algae growth, just better habitat.”

Since a Red Lake River dam removal near Crookston restored fish passage, anglers have been catching Red River species such as catfish in addition to walleye, smallmouth bass and Northern pike.

Hanson fishes the river near Red Lake Falls, and said the stretch upstream to Plummer makes for a scenic paddle.

“It’s a nice river, and I think the people that live in that area really appreciate it for recreation,” Hanson said.



# Protecting Del Clark Lake's water quality



**Above:** Del Clark Lake and the surrounding Stonehill Regional Park in Yellow Medicine County will benefit from three recently completed projects including two grade stabilization structures and a roadside retention embankment. **Photo Credit:** Yellow Medicine SWCD **Below:** A sign explains the improvements to park visitors. **Photo Credit:** Lac qui Parle Yellow Bank Watershed District

In Yellow Medicine County, Clean Water Funds support three agencies' work on four projects designed to protect the water quality of a popular recreation destination. Partners include the Lac qui Parle Yellow Bank Watershed District, Area II and the Yellow Medicine SWCD



CANBY – A partnership of local governments is working to protect Del Clark Lake in Yellow Medicine County with support from a \$300,000 Clean Water Fund grant from the Minnesota Board of Water and Soil Resources (BWSR).

Del Clark Lake is not yet impaired and is assessed by the Minnesota Pollution Control Agency as fully supporting aquatic recreation. The lake and the surrounding Stonehill Regional Park offer a handicap-accessible dock and fishing pier, plus opportunities for swimming, boating and

camping. About 9,000 people visit the park each year.

The effort involves three completed projects at Del Clark Lake — two grade stabilization structures and a roadside retention embankment — and a pending dam restoration upstream along Canby Creek. The Madison-based Lac qui Parle Yellow Bank Watershed District (LQPYBWD), which received the grant from BWSR in 2019, took the lead on project implementation with support from Area II Minnesota River Basin Projects (Area II) and the Yellow Medicine Soil

& Water Conservation District (SWCD).

Mitch Enderson, coordinator



for the LQPYBWD, said the intent is to maintain the lake's health and water quality.

"Most of the time, we're looking at restoration, not protection – but Del Clark is an outlier," Enderson said. "When you think about how heavily recreated it is, it becomes more critical to maintain that water quality."

Del Clark Lake is one of three reservoirs built in 1985 to help alleviate frequent flooding in the city of Canby that damaged roads and private property. Tapping local, state and federal funds, contractors built a 55-foot-high dam with a 155-acre permanent pool with a maximum depth of 30 feet. The LQPYBWD owns the lake and Stonehill Regional Park.

Construction of the three Del Clark Lake water quality protection projects began last June and wrapped up by the end of July. The two grade stabilization structures share a single berm on the northwest portion of the lake. A roadside retention embankment near the south part of the lake was also built to help meter out water after heavy rains. Area II — a nine-county joint powers board based in Marshall — provided engineering design and technical assistance.

According to Area II Executive Director Kerry Netzke, the three projects combined will capture an estimated 667 tons of sediment a year. For 100-year storm events (where 6.5 inches of rain falls over the watershed in a 24-hour period), the three projects offer a combined 42.1



**Knutson**



**Netzke**



**Enderson**



*Two grade stabilization structures share a berm in the northwest side of Del Clark Lake. The two structures, plus a roadside retention embankment near the south area of the lake, are estimated to capture a combined 667 tons of sediment each year.*

**Photo Credit:** Yellow Medicine SWCD

acre-feet of water storage. For more frequent 10-year storm events (where 3.99 inches of rain falls over the watershed in a 24-hour period), the projects are designed to provide a combined 19.1 acre-feet of water storage.

"We targeted these projects so Del Clark is going to see the benefit," Netzke said. "The primary goal was to keep sediment out (of the lake)."

Initially, project partners considered using the remaining grant funds upstream to implement several best management practices such as cover crops and grassed waterways. Yellow Medicine SWCD contacted landowners and generated a

list of shovel-ready projects.

"We want to make sure that while we're working on the lake, we're having a positive impact upstream," said Tyler Knutson, Yellow Medicine SWCD director.

Ultimately, the partners decided to use remaining funds on a single dam restoration along Canby Creek a few miles southwest of Del Clark Lake in Fortier Township. Construction is planned for this summer.

"It's a better investment for the public dollar," Netzke said.

A 2019 Minnesota Department of Natural Resources dam safety inspection revealed that a corrugated metal pipe

within the 28-foot-high dam was deteriorating. Area II, the LQPYBWD and the Yellow Medicine SWCD are working with the landowner to replace it with a concrete pipe, which is anticipated to last 100 years.

The project, estimated to cost \$50,000, will leverage the remaining Clean Water Fund grant dollars with matching funds from the landowner and the LQPYBWD. Area II is applying for permits and expects to solicit bids for the project in partnership with LQPYBWD this month after the DNR dam safety permit amendment is received. Construction is planned for this summer; work on this project must be completed by Aug. 31. All grant-related work must be completed by Dec. 31.

Although partners decided to pursue the dam restoration, Knutson said the list of shovel-ready projects could be funded later through BWSR's One Watershed, One Plan program. The Lac qui Parle — Yellow Bank Comprehensive Watershed Management Plan will be considered for approval in 2023.

"We'll have a backlog of projects to work on once we receive that implementation funding, so it will put us in a good spot," Knutson said.

Knutson attributes the success of the Del Clark Lake projects to strong partnerships and collaboration.

"There's a lot of trust between our agencies," Knutson said. "We each have different strengths and different relationships we can bring together."

# Targeted approach, deeper rewards



“  
There’s not really a history of the lake being more clear than it is now.

— Terry Tichenor, Serpent Lake Association



Crow Wing SWCD’s Serpent Lake watershed-focused work that started with a Clean Water Fund pilot program grant in 2014 not only achieved its water quality goal but also strengthened partnerships in Deerwood and Crosby



**VIDEO:** [“Serpent Lake Targeted Watershed”](#)

features one of the projects backed by the \$1.2 million Clean Water Fund targeted watershed grant: the stormwater treatment at the Summer Place cabins in Deerwood, which also solved a flooding issue.

**D**EERWOOD — Serpent Lake is twice as clear as it was 10 years ago. The targeted conservation projects in Deerwood, Crosby and nearby Cranberry Lake that keep 4.7 tons of pollutant-carrying, algae-feeding sediment out of Serpent Lake each year helped to reverse a downward trend in its water quality.

Water clarity exceeded 30 feet in July, reaching 35.5 feet on July 14. The season’s average was 27.2 feet. At its murkiest in 2012, water clarity measured 12.1 feet.

Together, more than \$1.5 million in projects backed by a \$1.2 million targeted watershed pilot program Clean Water

Fund grant the Minnesota Board of Water and Soil Resources (BWSR) awarded to the Crow Wing Soil & Water Conservation District (SWCD) in 2014 keep an estimated 80 pounds of phosphorus out of Serpent Lake annually.

One pound of phosphorus can produce up to 500 pounds of algae.

Phosphorus levels averaged 0.01 microgram per liter (ug/L) in 2021 and 2020. The state’s threshold for the region is 0.03 ug/L. From 2013 through 2019, averages ranged from 0.013 to 0.015 ug/L. The grant sought to preserve and improve water quality to prevent Serpent Lake from becoming impaired.

From left: Crow Wing SWCD Board Chairman Jim Chamberlin, Deerwood Public Works Foreman Patrick Radtke, Serpent Lake Association Vice President Terry Tichenor, EOR Senior Project Manager Jay Michels and SWCD Manager Melissa Barrick met July 20, 2021, at the Summer Place cabins in Deerwood.  
**Photo Credits:** Ann Wessel, BWSR



A two-stage retention basin and iron-enhanced sand filter slow and treat runoff from a 30-acre drainage area in Deerwood, removing about 90% of the phosphorus. At the Summer Place on Serpent Lake, heavy rains had flooded some — but not all — of the 13 cabins. Getting all 13 property owners to agree to the project generated conflict and negotiation because those unaffected by flooding didn't want to give up land.

"I think this is a great success story. If you look at the long-term trends, this lake was clearly declining in water clarity," said Crow Wing SWCD Manager Melissa Barrick. "Within a short period of time after diagnosing a root cause, we were able to fix those problems."

The SWCD's shift in focus from projects to the people who make them happen was equally significant. It gained the buy-in from partners necessary to complete the work, built community support and spawned water-quality work elsewhere in the county — including [stormwater work in nearby Crosslake](#).

"A lot of the water quality projects or conservation isn't necessarily about the project itself. It's more about trying to figure out how to work with the different people so that we can all win," Barrick said. "I really try to look at things as opportunities for what people are already wanting."

For example, after spending nearly a year trying to convince the Crosby City Council to allow a rain garden in a city park, the SWCD instead focused on resolving a longtime flooding issue. [The result](#) replaced a failing 1920s-era stormwater pipe. It filters runoff from 18 acres through a system of

**“ We didn't have a budget to take on ... a project like this ourselves. The grant opportunity was extremely helpful. We'd have never been able to do it, plus we don't have the expertise on our staff to take on a project like that. ”**

— Michael Aulie, Deerwood mayor



Smoke from distant wildfires cast a haze over Serpent Lake at the Summer Place cabins in Deerwood, site of one of the targeted watershed projects within the Serpent Lake watershed.

underground sediment traps and rain gardens. The targeted watershed grant contributed \$200,000.

"You've got to be looking at it as what's in it for the other person, not just us on the conservation side of things," Barrick said. "Once we changed gears and tried

to solve a problem that they wanted to solve, it was like night and day."

On the opposite end of the lake, Deerwood had long grappled with flooding at some of the 13 Summer Place Association cabins.

There, the largest of three

targeted watershed grant-supported projects in the city installed a system that slows and treats runoff from 30 acres. Previously, untreated stormwater flowed directly into Serpent Lake through an under-sized pipe. The grant's \$500,000 contribution was nearly as much as the city's total annual budget.

"We're just grateful as a small city — as a very small city — that we were able to be a part of a project that has had the impact that this one has had. It's nothing that we could have even begun to think about on our own," said Deerwood Mayor Michael Aulie.

When the SWCD first approached the city of 532, Aulie said the council was cautious about making a financial commitment.

"It took a little bit of time for us to grasp the vision of it. Crow Wing Soil and Water worked with us pretty well on that," Aulie said. Once it learned the grant would be the primary funding source, the city agreed to support and maintain the project.

Deerwood Public Works Foreman Patrick Radtke completed much of the city's \$27,000 in-kind work. He's also responsible for some of the maintenance, and has checked the Summer Place project after storms.



From left: Barrick, Michels, Tichenor and Chamberlin discuss the targeted watershed project at the new outlet to Serpent Lake at the Summer Place cabins site in Deerwood.

"We have had quite a few heavy rainfalls after we put that one in, and it handled it great. The homeowners in that area are just overwhelmed (with) just how awesome it turned out. The people are happy. I think the lake is very happy — if the lake could talk," Radtke said.

With 9 miles of shoreline, 1,100-acre, 62-foot-deep Serpent Lake is among the Cuyuna Lakes Area's primary recreational and residential lakes. It draws swimmers, anglers, boaters and water-skiers to tourism-dependent Deerwood and Crosby. About 280 homes ring the lake. Roughly half of those lakeshore residents belong to the Serpent Lake Association.

The lake association spearheaded the Serpent Lake-focused work. While the SWCD staff implements projects, Crow Wing SWCD Board Chairman Jim Chamberlin said it's the partnerships, citizen-driven conservation planning and open communication that make water quality improvements possible.

"Sure, the water quality benefits that we're seeing are huge," said Chamberlin, a former Crow Wing SWCD

technician who grew up in Deerwood. "More important is the success if you do the right thing on the land, you can turn things around for lakes that are degraded. The story is the community effort that that takes."

Targeted work will continue as Crow Wing SWCD and its partners develop community-driven One Watershed, One Plan priorities within the Pine River watershed. Barrick said the Serpent Lake experience made it easier to develop specific plans with measurable phosphorus-reduction goals for One Watershed, One Plan.

"In the end, I think you get a better result when you have a more specified plan rather than a plan that may include many options for all kinds of landowners," Barrick said. "I think you can make better choices if you have that data to guide you on where you should work."

Countywide, the SWCD has developed water-quality goals for 21 of its 533 lakes.

"I think things need to be targeted because dollars are limited. At the same time, I think education is huge because we all need to be conservationists," Chamberlin said.

That includes writing conservation into ordinances, and encouraging landowners to maintain their septic systems and restore their shoreline buffers.

"I've seen attitudes change on Serpent Lake. Parents of friends I grew up with on the lake (are) putting in buffers and rain gardens," Chamberlin said. "I think it already has changed attitudes and actions on the lake."

Serpent Lake Association Vice President Terry Tichenor said education is among the lake association's primary roles. That includes reminding lakeshore property owners that good water quality equals higher property values.

Tichenor, who moved to Serpent Lake full-time in 2014 and gets out on the water or ice three to four times a week, has noticed "well over 50%" of lakeshore property owners have installed some type of shoreline buffer to filter runoff.

"There's not really a history of the lake being more clear than it is now. We're riding a crest, and we want to do everything we can to keep it there," Tichenor said.

## GRANT DETAILS, PROJECT PARTNERS

### PROJECT SITES:

**Deerwood** — Grant funds contributed \$500,000 to stormwater treatment at the 13 Summer Place Association cabins; \$85,000 to infiltration basins that slow runoff at nearby Skone Park; and about \$107,000 (through a related grant) to a rain garden and check dam project on private land that reduces flooding on Cross Road. **Crosby** — \$300,000 supported a city stormwater treatment and flood reduction project. **Elsewhere** — \$90,000 supported a Cranberry Lake alum treatment that bound phosphorus; \$90,000 helped Crosby, Deerwood and Ironwood Township adopt stormwater ordinances.

### MATCHES:

Monetary and in-kind contributions tied to the \$1.2 million grant awarded in 2014 totaled \$300,000 — \$133,000 cash, \$117,000 in-kind, plus \$50,000 in the value of land required for an easement to construct the Summer Place project. **Deerwood** — \$15,000 Skone Park match. The work affecting Cross Road, handled in a separate grant, was supported by \$30,000 in SWCD capacity dollars plus a \$5,000 landowner contribution. **Crosby** — \$50,000 city contribution, \$20,000 Hallett Community Trust Grant. Serpent Lake Association — \$48,000 contribution (\$12,000 a year for four years' matching funds), Summer Place site maintenance and water quality monitoring. **Combined** — Local government staff members' time and services including engineering and attorney fees.

# Wetland trifecta: habitat, park, roads



**Above:** More than 64 acres of wetlands were restored after a former golf course in Andover was converted into a city park. **Inset:** Tree trunks removed during construction were placed in shallow ponds to provide habitat and basking opportunities for wildlife such as painted turtles.

Photo Credits: BWSR

A Local Government Road Wetland Replacement Program restoration on the site of a former golf course in Andover benefits birds and pollinators, those who use the 1.7-mile-long trail, and highways and bridges in need of work

ANDOVER — A partnership between the Minnesota Board of Water and Soil Resources (BWSR) and the city of Andover transformed the former Woodland Creek Golf Course into a 64.3-acre wetlands restoration that today functions as a popular city park.

“Opportunities to restore wetlands in the Twin Cities metropolitan area are hard to come by due to a combination of factors including high land values, environmental stressors and project constraints related to adjacent land uses,” said Ken Powell, BWSR Wetland Conservation



Act operations supervisor. “When an opportunity came up to restore an abandoned golf course back to wetland habitat, BWSR was up for the challenge.”

The project area was partially drained

and farmed decades prior to its conversion to a golf course in 1991. After management ceased in 2008, the golf course became overgrown with weeds. It was identified as a potential restoration

site for BWSR's Local Government Road Wetland Replacement Program (LGRWRP). The LGRWRP, which is primarily supported by legislative bonding funds, provides mitigation for lost ecological functions and values of wetlands that are affected by repairs, rehabilitation or replacement of local public roads.

Once BWSR staff identified the property as a potential good fit for the LGRWRP, they approached the city of Andover. The city purchased the property in October 2013; shortly thereafter, BWSR acquired a perpetual conservation easement from the city to establish the wetland mitigation site. The city benefited by gaining public recreation space with a 1.7-mile-long mowed walking trail that has since become popular with walkers, birdwatchers and joggers. BWSR gained high demand wetland mitigation credits for the LGRWRP.

Contractors moved fill from the former tee boxes and mounds into ponds, and flattened slopes to maximize opportunities to establish native vegetation. Construction began in June 2017 and concluded in spring 2018. Wet conditions resulted in a longer construction timeframe than anticipated – but that extended timeline came with a silver lining.

"The delay provided more opportunities to control existing invasive vegetation such as non-native cattails, Canada thistle and reed canary grass," said Dan Shaw, BWSR senior ecologist and vegetation specialist. "With many projects, we have a short window of time to control invasive vegetation before hydrology is restored. In this case, we



**Above:** A 1.7-mile mowed trail winds through restored wetlands in the city park that replaced the former Woodland Creek Golf Course.

**Below:** Wild rice growing in a restored wetland offers structural diversity and food for wildlife.



had two growing seasons, providing excellent control of problematic weeds and allowing for successful establishment of native plants and biodiversity across the site."

Contractors sowed native seeds and installed potted plants – including water lilies the Como Zoo raised from tubers – to increase plant diversity in open water areas of the park. White and yellow water lilies were then installed in the shallows of several wetlands; BWSR observes these plantings annually to monitor establishment.

"In addition to water lilies, we are also seeing a lot of wild rice — an unexpected but pleasant surprise, as it wasn't part of the restoration plan," Carol Strojny, BWSR monitoring coordinator said. "Wild rice provides great structural diversity in the deeper wetlands and is an excellent source of wildlife food."

The project's restoration plan included tree removal to eradicate non-native ornamental trees and to clear the pond edges in preparation for construction. Pond edges were re-graded to be more shallowly sloped, creating



shallow marsh habitat. Trunks from the removed trees were placed in the deeper part of the restored wetlands to provide habitat and basking opportunities for wildlife, such as painted turtles.

While monitoring vegetation and hydrology at the park, BWSR staff has frequently observed songbirds, waterbirds, raptors, trumpeter swans and sandhill cranes. The diverse vegetation also offers habitat for monarch butterflies — listed as federally endangered in December 2020 — and other pollinators.

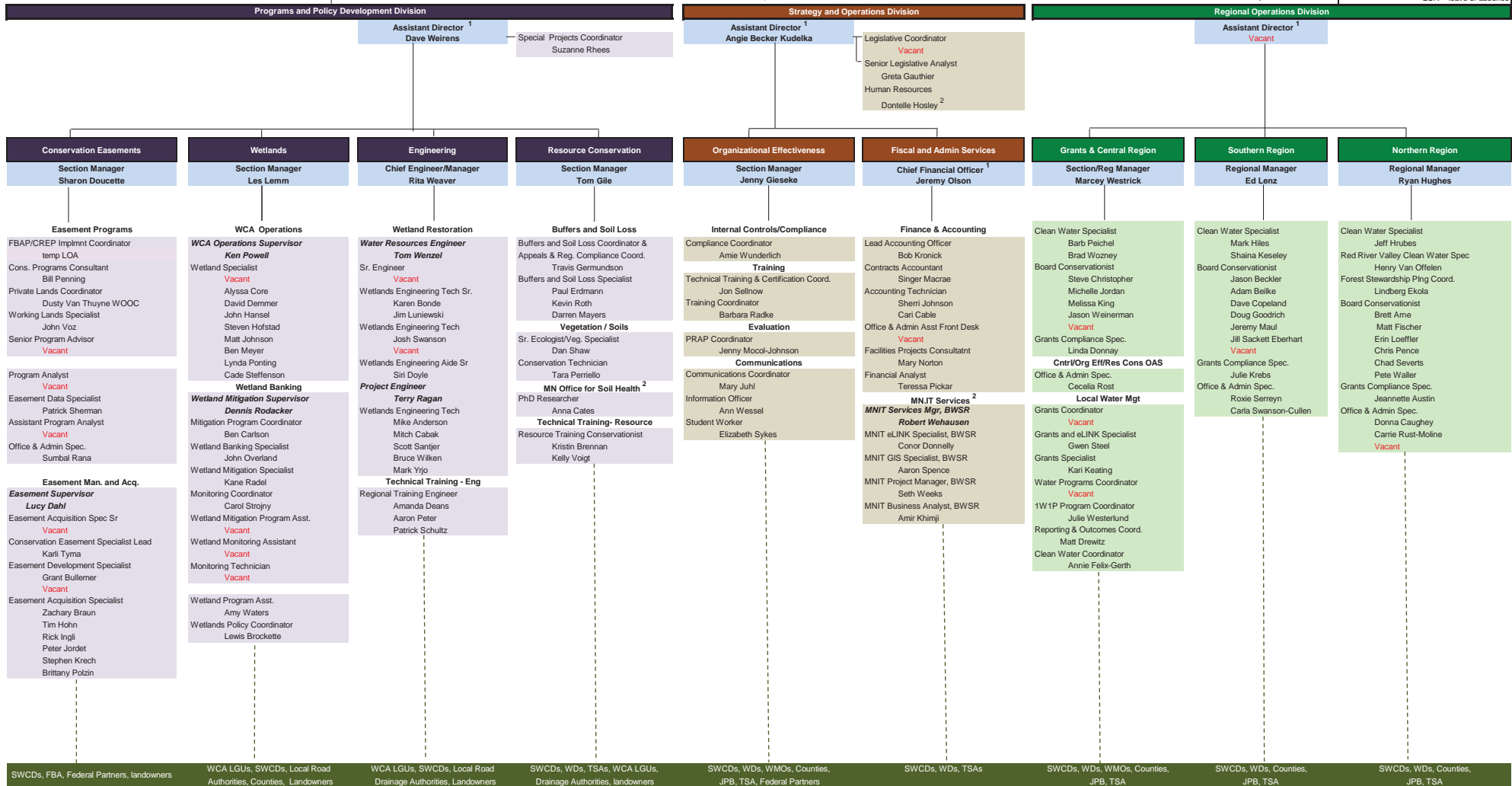
The park also offers unique opportunities to illustrate the value of wetland restorations. Last September, BWSR held a [field day](#) at the site for 11 Increasing Diversity in Environmental Careers (IDEC) fellows. The IDEC program provides a college-to-careers pathway for under-represented science, technology, engineering and mathematics (STEM) college students who want to pursue a career in environment and natural resources. Students receive a fellowship, mentorship and paid internship through IDEC, which is funded by the Environment and Natural Resources Trust Fund.

"At the end of a project, it's rewarding to step back and see all the positive outcomes," Strojny said. "There's not only a dramatic shift in vegetation, but public enjoyment of the now permanently protected space."

**BWSR BOARD**

Legend:

**Executive Leadership**<sup>1</sup>  
**Senior Management**  
 Staff / **Supervisor**  
 Current **Vacancy**  
 Temporary Supervisor/supervision <sup>^</sup> \*  
 Dept. in another agency <sup>2</sup>  
 WOOC = work out of class  
 LOA = leave of absence





<input type="checkbox"/> IN-STATE	<input type="checkbox"/> SHORT TERM ADVANCE	SEMA4 EMPLOYEE EXPENSE REPORT	<input type="checkbox"/> Check if advance was issued for these expenses
<input type="checkbox"/> OUT-OF-STATE	<input type="checkbox"/> RECURRING ADVANCE		<input type="checkbox"/> FINAL EXPENSE(S) FOR THIS TRIP?

Employee Name	Home Address (Include City and State)	Permanent Work Station (Include City and State)	Agency	1-Way Commute Miles	Job Title
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Employee ID	Rcd #	Trip Start Date	Trip End Date	Reason for Travel/Advance (30 Char. Max) [example: XYZ Conference, Dallas, TX]	Barg. Unit	Expense Group ID (Agency Use)
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Chart String(s)	A	B	Accounting Date	Fund	Fin DeptID	AppropID	SW Cost	Sub Acct	Agncy Cost 1	Agncy Cost 2	PC BU	Project	Activity	Srce Type	Category	Sub-Cat	Distrib %
			A. Description:														
B. Description:																	

Date	Daily Description	Itinerary			Trip Miles	Total Trip & Local Miles	Mileage Rate	Meals	Meals ✓			Total Meals (overnight stay)	Total Meals (no overnight stay) taxable	Lodging	Personal Telephone	Parking	Total
		Time	Location						B	L	D						
			Depart	Arrive													
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							0.00
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							0.00
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								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							0.00
VEHICLE CONTROL #					Total Miles	0	Figure mileage reimbursement below										Subtotal (A)
																	Total MWI/MWO

MILEAGE REIMBURSEMENT CALCULATION	OTHER EXPENSES – See reverse for list of Earn Codes.
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Enter the rates, miles, and total amounts for the mileage listed above. Get the IRS rate from your agency business expense contact.	Rate	Total Miles	Total Mileage Amt.	Date	Earn Code	Comments	Total
1. Enter rate, miles, and amount being claimed at <b>equal to the IRS rate.</b>			0.00				
2. Enter rate, miles, and amount being claimed at <b>less than the IRS rate.</b>			0.00				
3. Enter rate, miles, and amount being claimed at <b>greater than the IRS rate.</b>			0.00				
4. Add the total mileage amounts from lines 1 through 3.			0.00				
5. Enter IRS mileage rate in place at the time of travel.							
6. Subtract line 5 from line 3.	0.000						
7. Enter total miles from line 3.		0				Subtotal Other Expenses:	(B) 0.00
8. Multiply line 6 by line 7. This is <b>taxable</b> mileage.			0.00 <small>(Copy to Box C)</small>			Total taxable mileage greater than IRS rate to be reimbursed:	(C) 0.00 <small>MIT or MOT</small>
9. Subtract line 8 from line 4. If line 8 is zero, enter mileage amount from line 4. This is <b>non-taxable</b> mileage.			0.00 <small>(Copy to Box D)</small>			Total nontaxable mileage less than or equal to IRS rate to be reimbursed:	(D) 0.00 <small>MLI or MLO</small>
<b>Grand Total (A + B + C + D)</b>							0.00

If using private vehicle for out-of-state travel: What is the lowest airfare to the destination? \_\_\_\_\_ Total Expenses for this trip must not exceed this amount.

I declare, under penalty of perjury, that this claim is just, correct and that no part of it has been paid or reimbursed by the state of Minnesota or by another party except with respect to any advance amount paid for this trip. I AUTHORIZE PAYROLL DEDUCTION OF ANY SUCH ADVANCE. I have not accepted personal travel benefits.

Employee Signature _____	Date _____	Work Phone: _____	Amount of Advance to be returned by the employee by deduction from paycheck: 0.00
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Approved: Based on knowledge of necessity for travel and expense and on compliance with all provisions of applicable travel regulations. \_\_\_\_\_ Appointing Authority Designee (Needed for Recurring Advance and Special Expenses)

Supervisor Signature _____	Date _____	Work Phone: _____	Signature _____ Date _____
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## EMPLOYEE EXPENSE REPORT (Instructions)

**DO NOT PAY RELOCATION EXPENSES ON THIS FORM.**

See form FI-00568 Relocation Expense Report. Relocation expenses must be sent to Minnesota Management & Budget, Statewide Payroll Services, for payment.

**USE OF FORM:** Use the form for the following purposes:

1. To reimburse employees for authorized travel expenses.
2. To request and pay all travel advances.
3. To request reimbursement for small cash purchases paid for by employees.

**COMPLETION OF THE FORM: Employee:** Complete, in ink, all parts of this form. If claiming reimbursement, enter actual amounts you paid, not to exceed the limits set in your bargaining agreement or compensation plan. If you do not know these limits, contact your agency's business expense contact. Employees must submit an expense report within 60 days of incurring any expense(s) or the reimbursement comes taxable.

All of the data you provide on this form is public information, except for your home address. You are not legally required to provide your home address, but the state of Minnesota cannot process certain mileage payments without it.

**Supervisor:** Approve the correctness and necessity of this request in compliance with existing bargaining agreements or compensation plans and all other applicable rules and policies. Forward to the agency business expense contact person, who will then process the payments. Note: The expense report form must include original signatures.

**Final Expense For This Trip?:** Check this box if there will be no further expenses submitted for this trip. By doing this, any outstanding advance balance associated with this trip will be deducted from the next paycheck that is issued.

**1-Way Commute Miles:** Enter the number of miles from your home to your permanent workstation.

**Expense Group ID:** Entered by accounting or payroll office at the time of entering expenses. The Expense Group ID is a unique number that is system-assigned. It will be used to reference any advance payment or expense reimbursement associated with this trip.

**Earn Code:** Select an Earn Code from the list that describes the expenses for which you are requesting reimbursement. Be sure to select the code that correctly reflects whether the trip is in state or out-of-state. **Note:** Some expense reimbursements may be taxable.

**Travel Advances, Short-Term and Recurring:** An employee can only have one outstanding advance at a time. An advance must be settled before another advance can be issued.

**Travel Advance Settlement:** When the total expenses submitted are less than the advance amount or if the trip is cancelled, the employee will owe money to the state. Except for rare situations, personal checks will not be accepted for settlement of advances; a deduction will be taken from the employee's paycheck.

**FMS ChartStrings:** Funding source(s) for advance or expense(s)

**Mileage:** Use the **Mileage Reimbursement Calculation** table to figure your mileage reimbursement. Mileage may be authorized for reimbursement to the employee at one of three rates (referred to as the equal to, less than, or greater than rate). The rates are specified in the applicable bargaining agreement/compensation plan. Note: If the mileage rate you are using is above the IRS rate at the time of travel (this is not common), part of the mileage reimbursement will be taxed.

**Vehicle Control #:** If your agency assigns vehicle control numbers follow your agency's internal policy and procedure. Contact your agency's business expense contact for more information on the vehicle control number procedure.

**Personal Travel Benefits:** State employees and other officials cannot accept personal benefits resulting from travel on state business as their own. These benefits include frequent flyer miles/points and other benefits (i.e. discounts issued by lodging facilities.) Employees must certify that they have not accepted personal travel benefits when they apply for travel reimbursement.

**Receipts:** Attach itemized receipts for all expenses except meals, taxi services, baggage handling, and parking meters, to this reimbursement claim. The Agency Designee may, at its option, require attachment of meal receipts as well. Credit card receipts, bank drafts, or cancelled checks are not allowable receipts.

**Copies and Distribution:** Submit the original document for payment and retain a copy for your employee records.

Description	Earn Code		Description	Earn Code	
	In State	Out of State		In State	Out of State
Advance	ADI	ADO	Membership	MEM	
Airfare	ARI	ARO	Mileage > IRS Rate	MIT*	MOT*
Baggage Handling	BGI	BGO	Mileage < or = IRS Rate	MLI	MLO
Car Rental	CRI	CRO	Network Services	NWK	
Clothing Allowance	CLA		Other Expenses	OEI	OEO
Clothing-Non Contract	CLN		Parking	PKI	PKO
Communications - Other	COM		Photocopies	CPI	CPO
Conference/Registration Fee	CFI	CFO	Postal, Mail & Shipping Svcs.(outbound)	PMS	
Department Head Expense	DHE		Storage of State Property	STO	
Fax	FXI	FXO	Supplies/Materials/Parts	SMP	
Freight & Delivery (inbound)	FDS		Telephone, Business Use	BPI	BPO
Hosting	HST		Telephone, Personal Use	PHI	PHO
Laundry	LDI	LDO	Training/Tuition Fee	TRG	
Lodging	LGI	LGO	Taxi/Airport Shuttle	TXI	TXO
Meals With Lodging	MWI	MWO	Vest Reimbursement	VST	
Meals Without Lodging	MEI*	MEO*	Note: * = taxable, taxed at supplemental rates		